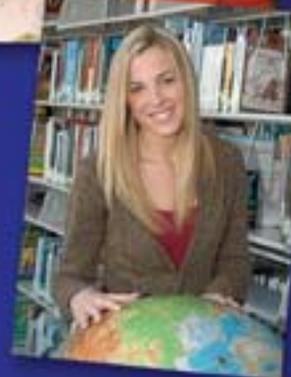


# CUYAMACA

## COLLEGE

C a t a l o g 2 0 0 6 - 0 7



CUYAMACA  
COLLEGE

900 Rancho San Diego Parkway, El Cajon, CA 92019-4304  
[www.cuyamaca.edu](http://www.cuyamaca.edu)

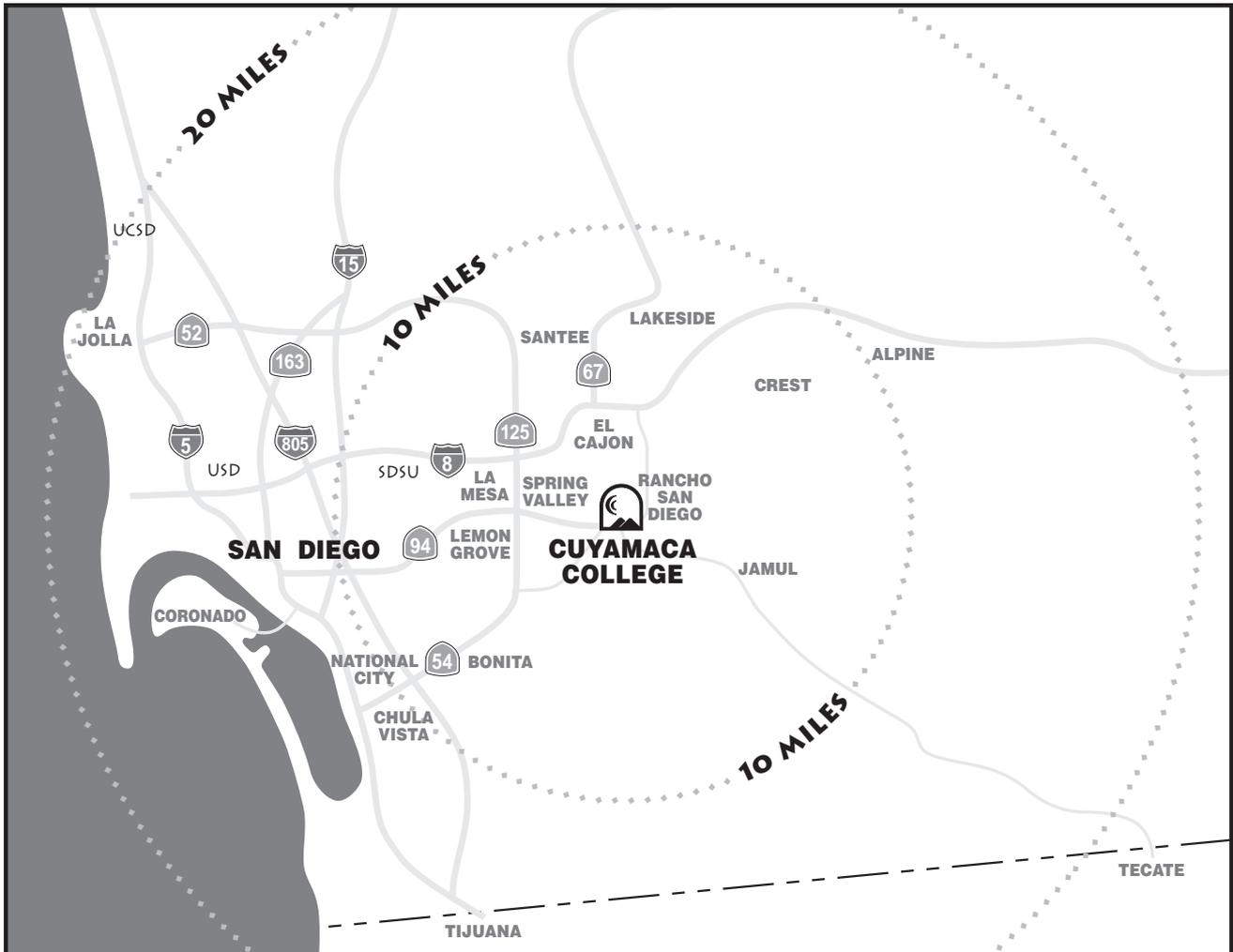
# Cuyamaca College

900 Rancho San Diego Parkway, El Cajon, California 92019-4304

[www.cuyamaca.edu](http://www.cuyamaca.edu)

619.660.4000

**Minutes from the city of San Diego  
in the community of Rancho San Diego**



**Directions:** From the West, take 5, 805 or 125 to 94E, continue straight onto Jamacha Road. Turn left on Fury Lane and left onto Rancho San Diego Parkway. For detailed maps see inside back cover.

From the East, take 8 to 125S, connect to 94E, continue straight onto Jamacha Road. Turn left on Fury Lane and left onto Rancho San Diego Parkway.



This catalog is available in alternate formats upon request. Please call the Disabled Students Programs and Services Office at (619) 660-4239.

## ACCREDITATION AND AFFILIATIONS

Cuyamaca College is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges (10 Commercial Boulevard, Suite 204, Novato, CA 94949, 415-506-0234), an institutional accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation and the U.S. Department of Education. Accreditation reports are available and may be reviewed at the Office of the President. The College is approved for the education of veterans under the various United States public laws and the California veteran enactments, and is approved by the Bureau of Immigration and Naturalization for foreign student attendance under education visas.

Appropriate courses of study at Cuyamaca College are fully accepted for transfer by the University of California, the California State University system, and private four-year colleges and universities.

**Grossmont-Cuyamaca Community College District Governing Board:** Rick Alexander, Timothy L. Caruthers, D.C., Wendell R. Cutting, Bill Garrett, Deanna Weeks **Student Members:** Jennifer Cortez, Bill Stanford  
**Chancellor:** Omero Suarez, Ph.D. **Cuyamaca College President:** Geraldine M. Perri, Ph.D.



C U Y A M A C A  
· C O L L E G E ·

## President's Message:



### **“Growing for Your Future”**

As President of Cuyamaca College, I am pleased to welcome you to the college. At Cuyamaca College you will find faculty and staff members who are committed to academic excellence and assisting you to work toward your individual goals. We offer a variety of occupational, transfer and general education programs, and have over 700 classes for you to choose from. In addition to regular course offerings, we have provided alternative and innovative ways to learn including Saturday courses, online courses, short-term classes, and tutoring assistance.

These are very exciting times for Cuyamaca College as we plan for major expansion of our facilities and continue to augment our instructional offerings with new courses, programs and enhanced student support services. During the last ten years, Cuyamaca College has increased 40% in enrollment with close to 8,000 students. The college has 100 dedicated full-time faculty and administrators, and over 100 caring and supportive staff members. We currently offer 57 associate degree programs and 66 certificates. In addition to providing our students with an array of occupational and pre-professional

programs, Cuyamaca College has been very successful in preparing students for transfer to both the California State University (CSU) and University of California (UC) systems, as well as to many private colleges and universities.

Cuyamaca College is clearly on its way to reaching its peak enrollment goal of 15,000 students by the year 2015. To accommodate future enrollment growth, the college will construct four new facilities – a Science and Technology Mall, a Student Center, a Communication Arts Center and a Business/Computer and Information Science building. These new and welcomed additions will be flanked by a host of facility renovations and overall campus improvements which together will contribute to the expansion of the scope of instructional programs and student support services.

Cuyamaca College constantly strives to improve its services to our students and neighboring communities. Your success is important to us and we will do all we can to help you achieve it. You are strongly encouraged to seek the assistance of one of our highly-trained and experienced counselors to develop your Educational Development Plan. Our counselors will assist you to plan your courses carefully, meet your assigned registration dates and academic year timelines, and provide you with tips on how to study and complete your assignments in a timely, productive manner.

Thank you for allowing us to share in this part of your academic life and best wishes in your educational pursuit.

Sincerely,

Geraldine M. Perri, Ph.D.

# Cuyamaca College... *On the Move!*

## Update on new facilities

Cuyamaca College is continuing its progress on Master Plan Construction Projects funded by Proposition R and state funds. To ensure success, design guidelines have been developed to achieve a cohesive campus with a focus on students, accessibility, convenience and an appreciation of the beautiful landscape. Each construction project has seen progress this past year as the college moves forward. Here is a summary of the top four new projects.



### Science and Technology Mall construction began Spring 2005

The 60,000 square foot Science and Technology Mall will provide the College with much needed laboratory space for Biology, Chemistry, Geography, Geology, Physics, Computer & Information Science and Graphic Design. Not only will we be able to offer anatomy and human physiology courses that are in heavy demand

state-wide and support the allied health fields, the first floor will provide open lab space with over 100 computer stations for student use. This building project began construction in Spring 2005. The Science and Technology Mall will be open for classes in the Spring 2007 semester.



Science and Technology Mall:  
Taking shape Spring 2006.





## Communication Arts Center construction began Fall 2005

The 88,000 square foot Communication Arts Center will house English, English as a Second Language, Reading, Fine and Performing Arts, Communication, and American Sign Language. State of the art lab space will enhance student success in reading and writing. Practice rooms and rehearsal halls will support an ever-growing music program that includes a new major in music education and choral classes. The fine arts program will enjoy large rooms designed with precise lighting and structure necessary for drawing and painting classes, and will allow for an increase in the number of students who enroll in the fine arts each

semester. With the addition of a new American Sign Language classroom, the program will be able to expand to offer more sections necessary to accommodate students wishing to take these classes that now meet foreign language requirements at San Diego State University. A theater will serve the college and surrounding community as a much needed venue for a variety of activities. As a result of the recent passing of Proposition 55, the building began construction in October 2005 and is scheduled to be open for classes in Spring 2008.



Communication Arts Building: Grading and terracing currently underway, Spring 2006.



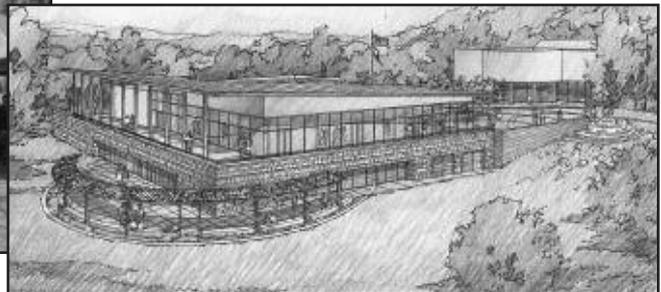
## Student Center construction began Spring 2006

The new Cuyamaca College Student Center will address the need for enhanced campus life by providing a central hub for student activities and retail services. Proposed services for the Center include a bookstore, food mall, student health center, and offices for student government. Currently in the planning phase, college staff will work with LPA, the

architectural firm responsible for this project, to determine the appropriate size, scope, and building layout of the Center. Consideration will also be given to specific food and retail services to be offered in the Center, with a focus on the college's enrollment goal of 15,000 students by the year 2015. Grand opening scheduled for Fall 2007.



Student Center Groundbreaking Ceremony: February 2006

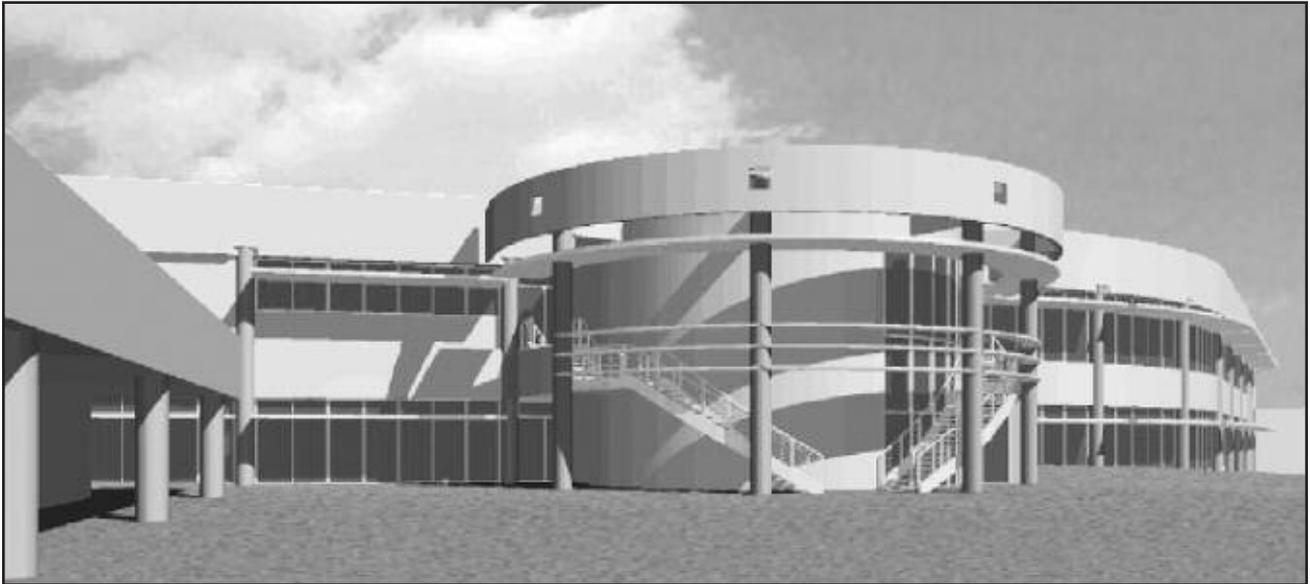




## **Business/CIS Building construction begins Fall 2007**

We have seen significant progress on the fifth construction project identified in the Master Plan. The Business/Computer & Information Science Building, planned to begin construction in Fall 2007, will address the ongoing technology challenges in the Computer &

Information Science, Telecommunications, Business, Economics, Paralegal Studies, and Real Estate programs. The project has been approved by the State and is awaiting results of the November 2006 local bond measure.



### **Additional projects starting Spring 2006:**

- Additional Parking: Parking lot expansion of 291 spaces in Lot 5 across from the One-Stop Center. The sand volleyball court west of the gymnasium will be converted into 16 disabled and 36 staff parking spaces
- Campus-wide signage design underway
- Landscape repair projects will take place throughout the campus
- A new emergency generator will be connected into our main computer servers, phone system, exterior lighting for buildings A-H and the Grand Lawn area



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### **Title Pages:**

Section title pages feature programs that are to be housed in the new Science and Technology Mall and the Communication Arts Building.

## JULY

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## FALL 2006

Continuous through August 18 .....	Application Period
Continuous through August 18 .....	Program Advisement
July 10-August 18 .....	Registration
August 14-18 .....	Professional Development-Organizational Meetings
August 18 .....	APPLICATION DEADLINE
August 21-25 .....	Late Application Period
<b>August 21 .....</b>	<b>Regular Day &amp; Evening Classes Begin</b>
August 21-Sept 1 .....	Program Adjustment
September 2-4 .....	Labor Day Weekend
September 5 .....	Census Day
Continuous through October 13 .....	Second 8-Week Application Period
September 22 .....	Last Day to Apply for CR/NC-Semester Length Classes
October 13 .....	Last Day to Apply for Fall 2006 Degree/Certificate
October 13 .....	End of First 8-Week Session
October 16 .....	Second 8-Week Session Begins
October 17 .....	Late Application Deadline for Second 8-Week Session
November 9 .....	Last Day to Drop Semester Length Classes
November 10-11 .....	Veterans' Day Weekend
November 23, 24, 25 .....	Thanksgiving Vacation
December 8 .....	End of Second 8-Week Session
<b>December 11, 12, 13, 14, 15, 16, 18.....</b>	<b>Final Examinations</b>
December 18.....	Close of Fall Semester
December 21 .....	Instructor Grade Deadline
December 21-January 12 .....	Winter Recess-Faculty
December 19-January 19.....	Winter Recess-Students
December 25, 26, 27, 28, *29, and January 1, 2 .....	District Employees Holidays

\* The date for Admission Day is no longer mandated for September 9. Local Districts must provide an equivalent holiday for classified employees if not observed on September 9. This day will be December 29. (Chapter 36, Statutes of 1977, Section 313)

# SPRING 2007

Continuous through January 19 .....Application Period  
 Continuous through January 19 .....Program Advisement  
 November 13-January 19 .....Registration  
**January 3-19 .....Spring Intersession**  
 January 15 .....Holiday (Martin Luther King Day)  
 January 16-19 .....Professional Development-Organizational Meetings  
 January 19 .....APPLICATION DEADLINE  
 January 23-27 .....Late Application Period  
**January 22 .....Regular Day & Evening Classes Begin**  
 January 22-February 2 .....Program Adjustment  
 February 5 .....Census Day  
 Continuous through March 19 .....Second 8-Week Application Period  
 February 16-19 .....President's (Lincoln and Washington) Weekend  
 February 23 .....Last Day to Apply for CR/NC-Semester Length Classes  
 March 16 .....Last Day to Apply for Spring 2007 Degree/Certificate  
 March 16 .....End of First 8-week Session  
 March 19 .....Second 8-Week Session Begins  
 March 19 .....Application Deadline for Second 8-Week Session  
 April 2 .....Classified Staff Appreciation Day  
 April 2, 3, 4, 5, 6, 7 .....Spring Recess  
 April 6 .....District Employees Holiday  
 April 20 .....Last Day to Drop Semester Length Classes  
 May 18 .....End of Second 8-Week Session  
**May 19, 21, 22, 23, 24, 25 and 29 ..... Final Examinations**  
 May 26-28 .....Memorial Day Weekend  
 May 29 .....Close of Spring Semester  
**May 31 .....Commencement**  
 June 1 .....Instructor Grade Deadline

**JANUARY**

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**APRIL**

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**MAY**

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**JUNE**

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## CUYAMACA COLLEGE ADMINISTRATION

Geraldine M. Perri, Ph.D.	President
Beth Appenzeller, Ph.D.	Acting Vice President, Student Development & Services
Cristina Chiriboga, Ed.D.	Vice President, Instruction
Arleen Satele	Vice President, Administrative Services
Vacant	Executive Dean, Institutional Advancement
Beth Appenzeller, Ph.D.	Dean, Admissions & Records
Teresa McNeil, Ed.D.	Interim Dean, Counseling & Matriculation
Madelaine Wolfe, Ed.D.	Dean of Instruction, Division I (Automotive Technology, Business & Professional Studies, CADD Technology, Computer & Information Science & Graphic Design, Environmental Health & Safety Technology, Mathematical Sciences, Science and Engineering)
Albert Taccone, Ph.D.	Dean of Instruction, Division II (Art, Communication Arts, Foreign Languages, History, Social & Behavioral Science, Humanities & Performing Arts, Ornamental Horticulture & Water/Wastewater Technology)
Marie Ramos, Ph.D.	Dean of Instruction, Division III (Exercise Science/Health Education, Child Development, Community Learning)
Gene Morones, J.D.	Interim Associate Dean, Special Funded Programs
Larry Sherwood	Interim Associate Dean, Learning Resources
Sharon Barrett	Assistant Dean, Student Affairs
Sandy Lyon	Assistant Dean, EOPS
Michael Gilchrist	Campus Bookstore Manager

## GROSSMONT-CUYAMACA COMMUNITY COLLEGE DISTRICT ADMINISTRATION

Omero Suarez, Ph.D.	Chancellor
James Austin	Vice Chancellor, Business Services
Ben Lastimado, Ed.D.	Vice Chancellor, Human Resources & Administrative Services
David Agosto	Interim Associate Vice Chancellor, Districtwide Academic, Student and Planning Services
Sue Rearic	Associate Vice Chancellor, District Business Services
Dale Switzer	Senior Director, Facilities Planning, Development & Maintenance
Vacant	Interim Senior Director, Information Systems
Linda Bertolucci	Director, Purchasing & Contracts
Robert Eygenhuysen, J.D.	Director, Risk Management/Benefits
Amber Green	Director, Employment Services
Joel Javines	Director, Public Safety
Dana Quittner	Director, Intergovernmental Relations, Economic Development & Public Information
Brad Phillips, Ph.D.	Acting Manager, Institutional Research & Planning
Sheila Dixon	Facilities Specialist

## CODE OF ETHICS

Cuyamaca College, as a public community college, and in the fulfillment of its mission, embraces a code of conduct for students, faculty, classified staff, and administrators. We recognize the value and dignity of each individual within the framework of the campus community.

We strive in all our affairs to:

- ❖ respect the opinions, values, and traditions of others,
- ❖ be responsible for our own behavior,
- ❖ be honest, open and trustworthy,
- ❖ be fair and equitable in our treatment of others, and
- ❖ promote democratic principles, good citizenship and the standards of academic freedom.

# COLLEGE HISTORY & VISION



G r o w i n g   F o r   Y o u r   F u t u r e

## COLLEGE VISION

### “LEARNING FOR THE FUTURE”

#### PREAMBLE & VALUES

Cuyamaca College is committed to providing opportunities and excellence in higher education to our community. Our vision, "Learning for the Future," is reflected in our six core values listed below. These values help shape the unique experience that is Cuyamaca College.

- Academic Excellence
- Student Access
- The Natural Environment
- Strong Community Relations
- Innovation and Creativity
- Diversity and Social Harmony

#### FOCUS AREAS

**Academic Excellence & Program Development** - to provide high quality, learner centered academic programs that enable students to achieve transfer and career/technical education goals

**Student Success** - to implement systems and services that promote access, equity and opportunities for individual growth and that serve the diverse college student population

**Facilities & Physical Environment** - To create well designed and appropriate learning environments that facilitate student success

**Community Relations** - To enhance the college image, academic reputation and prominence in the community in order to become its focal point for postsecondary education

**Resource Development** - To expand resources and maximize the use of existing resources, including fiscal and human

## DISTRICT & COLLEGE MISSION

Provide educational leadership through learning opportunities that anticipate, prepare for, and meet the future challenges of a complex democracy and a global society.

## EDUCATIONAL PHILOSOPHY

The founders of the Grossmont-Cuyamaca Community College District believe that a community college should provide experiences which will greatly broaden the students' educational opportunities and strengthen our society's democratic institutions. The representatives of the community directed the college to provide an education through which students may create rewarding lives, productive for themselves and for society, based on an understanding of the relationship between the past and the challenge of the present and the future.

Cuyamaca College accepts and is committed to these philosophical premises:

- The democratic way of life allows each individual personal freedom and initiative consistent with responsibilities to one another.
- The college recognizes the worth of the individual and the fact that individual needs, interests and capacities vary greatly.
- The maximum development of the personal, social and intellectual qualities of each individual must be encouraged.
- The maximum development and fulfillment of the individual and the development of the general welfare are increasingly interdependent.
- All segments of the college community are encouraged to contribute and participate in the operation of the college.

An educational environment dedicated to these philosophic premises will produce individuals prepared for life and citizenship in a complex, viable society.

## EDUCATIONAL OBJECTIVES

In order to maximize the opportunity for the development of individuals' personal, social and intellectual qualities, the college provides:

An **instructional** program:

- **Transfer** courses equivalent to the lower division curriculum of universities and colleges for students who plan to continue their education at a baccalaureate institution.
- **Vocational and career education** courses to provide technical skills and knowledge for beginning employment, retraining and advancement, respond to local business and industry economic development and workforce training directions.
- **General Education** courses to broaden knowledge, skills, attitudes and values, to develop analytical ability and critical thinking, and to foster interest in lifelong learning in the educational, scientific and cultural fields essential for effective participation in a complex society.
- **Developmental** courses to assist inadequately prepared students to succeed in college course work.

A **student development and services** program:

- **Academic, vocational and personal support** services to provide students with sufficient opportunity to achieve educational success.
- **Co-curricular activities** to provide opportunities for personal development and social responsibility.

**Learning resources support** services:

- **Library collection:** A well-rounded collection of print and electronic materials selected to support instructional programs across the curriculum.
- **Information competency:** Instruction designed to teach students how to locate, evaluate and utilize information resources. Preparing students for lifelong learning is the ultimate goal.
- **Research guidance:** One-on-one instruction to assist students with their course-related and individual research needs.

A **community education** program:

- **Continuing education noncredit** courses which are eligible for state support and are designed to provide education and training in areas of local needs.

- **Community services** courses, workshops, seminars, forums and institutes to provide for the special educational, cultural, avocational and recreational needs of the community.

An **economic development** program:

- **Education and training** that contributes to continuous workforce improvement of regional business and industry.

## HISTORY OF THE COLLEGE

Cuyamaca College is located in the community of Rancho San Diego at 900 Rancho San Diego Parkway in the City of El Cajon on a 165-acre site which was at one time a part of the Old Monte Vista Ranch. Cuyamaca College is one of two colleges serving the Grossmont-Cuyamaca Community College District.

The name for the College was selected by the Board of Trustees as a reflection of the history and heritage of this area of San Diego County. One historian notes that "The very old Indian name 'Cuyamaca' has persisted through Spanish, Mexican and American times," and has, at various times, been "applied to mountains, lakes, valleys and ranches." Writers have interpreted the Indian meaning of the name in various ways, including "above rain," "beyond rain" and "place where the rain comes from heavens."

The building site was acquired by the Board of Trustees in September 1972, and the College officially opened in the Fall of 1978. The second phase of buildings was completed in January 1980. In 1989 the Learning Resource Center opened. The campus consists of eight classroom buildings and is also the site of The Heritage of the Americas Museum and the Water Conservation Garden.

In the Spring of 1995, Rancho San Diego Parkway, the Fury Lane entrance road, was completed providing students easier access to the College.

In the Fall of 1995, the College dedicated a new 20.3 acre physical education facility with a fitness center, gym, tennis and volleyball courts, soccer and ball fields and an olympic track.

A new Student Services Center opened in Spring 2001 to provide one-stop student services at the Rancho San Diego Parkway entrance. The Child Development Center and Math Learning Center opened in Fall 2001.

Construction implementation is occurring on an incremental basis in response to the growing community surrounding the College and to meet the educational needs in the Grossmont-Cuyamaca Community College District. The College is designed to provide a comprehensive curriculum of programs and courses of study, and when completed, will accommodate an enrollment of approximately 15,000 students in 2015.

# GENERAL INFORMATION



## Biological Sciences

This degree program is designed to provide a two-year transfer program with emphasis on the uniformity and diversity of life. The major fulfills the lower division requirements for majors in biology, dentistry, medicine, nursing, pharmacy, environmental health, microbiology and ecology.



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## Chemistry

The chemistry curriculum is designed to give students who choose to work towards a bachelor's degree a well-balanced lower division program with a strong emphasis on fundamentals and problem solving.

Chemists work in a variety of fields, primarily those of the chemical, biotechnological, environmental, biomedical, pharmaceutical, electronics, forensic, agricultural and food industries.



G r o w i n g F o r Y o u r F u t u r e

## AIR FORCE AND ARMY RESERVE OFFICERS TRAINING CORP

Cuyamaca College has entered into an agreement which permits students to enroll in the AFROTC or AROTC at San Diego State University. For further information contact the AFROTC at (619) 594-5545, or the AROTC (619) 594-2808.

## COMMUNITY LEARNING

Community Learning is the “Pathway to Credit.” Grossmont-Cuyamaca Community College District integrates its resources and functions with community life. Community Learning recognizes that education is a lifelong process of importance to all age groups. Educational opportunities such as noncredit and fee-base courses are provided to all community members through Community Learning.

Community Learning's noncredit and fee-base courses afford students an opportunity to increase their personal and/or professional skills and knowledge in several areas. Noncredit and fee-base classes carry no units of credit and the progress of the students is not graded. Classes are held on the college campuses and at various locations throughout our district.

Community Learning offers a wide variety of classes such as Feng Shui, 40-Hour Hazwoper, Painting, Fitness, Food Handler's Training courses and more. Programs for kids in art, science and sports are available. In addition, yoga, computer and several personal and professional skills classes are offered designed specifically to meet the needs of adults in the community.

The **PREVIEW** is a free publication listing Community Learning classes and events for the general public. Distributed three times each year, the PREVIEW can be obtained by calling (619) 660-4350 or writing:

Community Learning  
Cuyamaca College  
900 Rancho San Diego Parkway  
El Cajon, CA 92019-4304

## EVENING AND OFF-CAMPUS CLASSES

Evening and off-campus classes do not differ in academic quality from those in the regular day program. They are parallel in title and number, prerequisites, course content, outside work required, examinations and instructor qualifications. Classes may be offered in local middle schools, high schools, community or business facilities.

## HERITAGE OF THE AMERICAS MUSEUM

Cuyamaca College is the home of the Heritage of the Americas Museum, a cultural and educational center featuring the prehistoric and historic art, culture and natural history of the Americas. There are fossils as old as 450 million years exhibited in the Natural History wing. Artifacts representing ancient cultures of the Americas are presented in the Archeology and Anthropology wings, and the Art wing displays the art of the world from ancient Chinese jade to modern painting and sculpture.

The museum also serves as an adjunct to the instructional programs of Cuyamaca and Grossmont Colleges in a variety of academic disciplines. There is a research library of more than a thousand books related to the Museum's collections. Students and faculty find the museum to be a valuable research facility and a fascinating place to visit.

## LEARNING SKILLS PROGRAM

The Learning Skills Program is designed to assist students in attaining basic proficiency in reading, writing and other skills necessary to succeed in college-level courses. The program components are as follows:

1. **ASSESSMENT:** All new students are encouraged to participate in the assessment process. These results, along with advisement from a counselor, assist a student in selecting courses.
2. **BASIC SKILLS COURSES:** Courses in English, mathematics and personal development have been designed to develop the skills necessary for students to be successful in college-level courses.
3. **TUTORING:** The College offers academic tutoring at no cost to students enrolled at Cuyamaca College. Tutoring is available in a variety of subjects at several locations on campus.
  - a. **General Tutoring Center:** Individual and group tutoring is available. Any questions regarding tutoring can be answered in the General Tutoring Center, located in the LRC, or by calling (619) 660-4306.
  - b. **Reading and Writing Center:** The Reading and Writing Center, located in L136, provides assistance for individual academic reading and writing needs.
  - c. **Math Study Center:** The Math Study Center, located in N104, offers math tutoring assistance.
  - d. **Supervised Tutoring (198):** Supervised tutoring courses use a variety of educational tools to assist students with various learning needs. These courses can be used to assist students to strengthen prerequisite skills prior to enrolling in a specific course or to receive supplemental assistance while enrolled in another course. Supervised tutoring courses may be repeated with different content in various departments. There is no fee charged and no credit given for supervised tutoring. For more information, see “198 Courses – Supervised Tutoring” under Academic Policies.

## ONLINE COURSES

Cuyamaca College offers a variety of courses entirely online and blended classes (partially online). For courses taught entirely online, there are no real-time class meetings. Some online courses require an orientation on campus and some require on-campus exams. Online courses require that students have dependable access to the Internet through their own Internet Service Provider or through one of the college's computer labs.

If you are self-motivated, self-disciplined, have good basic computer skills, and are able to read and follow instructions carefully, online courses may be a good option for you. Online courses are transferable to most four-year colleges and universities. Some of the same instructors who teach regular courses also teach online courses. Online courses include Art, Business, Business Office Technology, Child Development, CIS, Economics, English, Graphic Design, Health Education, History, Library Research, Math, Personal Development, Philosophy, Political Science, Psychology, Religious Studies and Sociology.

## OPEN-ENTRY/OPEN-EXIT COURSES

Cuyamaca College offers two primary disciplines in the open-entry/open-exit format: Business Office Technology (BOT) and Exercise Science (Fitness Center). Open-entry/open-exit courses are self-paced, individualized courses that allow you to start at different times throughout the semester and to work at your own pace. You may choose to complete your work during any hours that the BOT Lab or Fitness Center is open.

- To complete a course in BOT, attend an orientation, follow the course syllabus, turn in assignments, and take tests. Individual assistance is always available.
- To complete a course in the Fitness Center, attend an orientation, purchase the applicable Fitness Manual, and complete 20-40 hours of exercise/workout in the Fitness Center. Individualized assistance is always available.

## PARKING AND TRAFFIC REGULATIONS

### GROSSMONT-CUYAMACA COMMUNITY COLLEGE DISTRICT PARKING REGULATION INFORMATION

The following information is only a summary of the Grossmont-Cuyamaca Community College District Parking Regulations Brochure. The Parking Regulations brochure is published in accordance with the California Vehicle Code and applicable District Policies. For a complete copy of the brochure, please contact the District Police Parking Unit at (619) 660-4481.

All vehicles must display a valid college-parking permit while parked on campus property. The responsibility for finding a legal parking space, as well as knowing where and when a parking permit is valid, rests with the vehicle operator and/or owner. The purchase of a permit does not

guarantee a space to park. For the safety of the college community, all California Vehicle Codes are enforced. **Also, all persons on college grounds are primarily responsible for their own safety and property.**

### STUDENT PARKING PERMITS

Student Parking Permits may be purchased during registration (see class schedule for details). Permits not purchased during registration are available at the College Cashier's Office. To refund or exchange a parking permit, see "Refund Schedule" under Admission Information or the class schedule.

Motorcycle permits are no longer required if the Motorcycle Parking areas are used.

### AUTO PARKING PERMIT

This type of permit has multiple uses and MAY BE TRANSFERRED to another vehicle owned and/or operated by the purchaser. Auto Parking Permits must be displayed so that the color and/or expiration date is clearly visible and displayed properly.

The Auto Parking Permit is only valid when displayed:

1. Completely attached to the rear window either side, inside lower corner.
2. Convertibles, open vehicles, or vehicles with dark tint on the back windows must completely affix the permit to the front windshield, either side, inside lower corner.
3. Hanging from the rear view mirror completely attached to the plastic permit hanger provided by the College.

### PERMIT HANGERS

A free plastic permit hanger is available from the Admissions and Records Office, the Cashier's Office, most Student Services Offices, and the District Police Office.

### DISABLED PARKING PERMITS

All vehicles utilizing Disabled Parking must have a state issued identification placard, i.e., Department of Motor Vehicles issued placard, DP or DV plates.

**Students who have a current California Disabled Placard are not required to purchase a parking permit.**

### LOST OR STOLEN PERMITS

The college is not responsible for lost or stolen permits. Lost or stolen permits must be replaced by purchasing a new permit at the Cashier's Office.

### REPLACEMENT PERMITS

To replace a damaged permit, bring your old permit to the Cashier's Office and you will be issued a new permit for a \$2 replacement charge.

### VISITOR PARKING

- **Parking Meters** - Meters are expressly intended for visitors. Parking Permits are not valid at meters. All meters have a two-hour time limit.
- **One-Day Permit** - May be purchased from the Yellow Permit Dispensers. One-day permits are valid in student lots only. Dispensers are located between Student Lot 1 and 4 and Lot 5.

### PARKING CITATION PAYMENTS

Fees resulting from citations are payable at the Cashier's Office within the first 21 days. Timely payments may also be mailed to the address listed on the citation.

### CITATION REVIEW PROCEDURES

You may obtain a Request for an Administrative Review Form at the District Police Office. The Administrative Review must be completed and returned **within 21** days of the date of your citation.

**Remember to remove your keys and lock your vehicle!**

## POLICIES REGARDING NONDISCRIMINATION

Cuyamaca College does not discriminate on the basis of race, color, national origin, religion, gender, disability or age in any of its policies, procedures or practices. This non-discrimination policy covers admission and access to, and treatment and employment in, Cuyamaca College's programs and activities, including vocational education.

Inquiries regarding the equal opportunity policies, the filing of grievances, policies on academic accommodations, appeals, substitutions and waivers based on disabilities, or to request a copy of Cuyamaca College's grievance procedures may be directed to:

Section 504 and ADA Coordinator  
Cuyamaca College  
900 Rancho San Diego Parkway  
El Cajon, CA 92019-4304  
(619) 660-4239  
TDD (619) 670-3996

Cuyamaca College recognizes its obligation to provide overall program accessibility for those with disabilities. Contact the Section 504 and ADA Coordinator to obtain information as to the existence and location of programs, services, activities and facilities on campus, and for a geographical accessibility map.

Inquiries regarding Federal laws and regulations concerning non-discrimination in education or the College's compliance with those provisions may also be directed to:

Office for Civil Rights  
U.S. Department of Education  
221 Main Street, Suite 1020  
San Francisco, CA 94105

## REVISION OF REGULATIONS

Any regulation adopted by the Grossmont-Cuyamaca Community College District Governing Board has the same force as a printed regulation in the catalog and supersedes any ruling on the same subject which may appear in the catalog or official bulletin of the college.

## SATURDAY COURSES

Cuyamaca College offers a variety of courses on Saturdays to provide flexibility for students seeking to complete General Education transfer requirements or specific program requirements for an Associate degree. Working adults and students trying to maximize the number of units they are able to take each semester may find Saturday courses the perfect option. These courses are typically all day long or may include one evening per week. Some programs such as Paralegal Studies and Real Estate offer more condensed courses over five to eight weeks allowing students to take two courses per semester on Saturdays.

Saturday courses that fulfill General Education requirements are transferable to most four-year colleges and universities such as SDSU and UCSD. Some of the same instructors who teach during the week also teach on Saturdays.

## STUDENT EQUITY PLAN

The Grossmont-Cuyamaca Community College District recognizes that California's economic and social future depends upon the success of all its citizens, particularly those enrolled in institutions of higher education. Therefore, the District has developed a Student Equity Plan.

The intent of the Student Equity Plan is to move our District toward achieving student equity by ensuring that the composition of students who enroll, are retained, transfer or achieve their occupational goals mirrors the diversity of the population of the District's service area. The Student Equity Plan is subject to on-going coordination, evaluation and revision. It guarantees that student equity and student success are explicit and integral parts of the District's priorities.

## STUDY ABROAD PROGRAMS

Cuyamaca College annually sponsors Study Abroad Programs which enable students to immerse themselves in a foreign language environment. During these programs students are housed with host families, which not only allows the students to become more proficient in a foreign language, but also gives them the opportunity to experience firsthand a foreign culture. Countries which are usually visited include Mexico, Costa Rica, Guatemala, Peru, Spain and other parts of Europe.

For more information, contact Dr. Ezequiel Cardenas, Foreign Languages Department, (619) 660-4216, ezequiel.cardenas@gcccd.edu.

## SUMMER SESSION

The College offers a summer session that includes courses and programs also available in the regular academic year. College and legal regulations including residence, fees, veterans and withdrawal procedures, apply.

# ADMISSION INFORMATION

## Geography

The science dealing with the differentiation of the earth's surface, as shown in the character, arrangement, and interrelations over the world of such elements as climate, elevation, soil, vegetation, population, land use, industries, national and political entities.



Michael Wangler,  
Geography Instructor



Cuyamaca College offers courses in:

- World Regional Geography
- Elements of Physical Geography
- Regional Field Studies in Physical Geography
- Human and Cultural Geography
- Special Studies and Selected Topics



## Physics

Physics is the study of the relationship between matter and energy in the universe. The curriculum is designed to give students working toward a bachelor's degree a well-balanced, lower division program and satisfy the requirements of San Diego State University.

General Physics deals with problem solving as well as a philosophical approach to physical phenomena such as force, linear and rotational motion and energy, simple harmonic motion and wave behavior, heat and thermodynamics.



G r o w i n g   F o r   Y o u r   F u t u r e

## ADDRESS CHANGE

A change of address and e-mail address should be immediately reported to the Admissions and Records Office. You may change your address information online or in the Admissions and Records Office.

## ADMISSION AND REGISTRATION

The college year is divided into three sessions: fall and spring semesters and a summer session. A spring intersession is also available between the fall and spring semesters. Courses offered during the various sessions are similar in scope and maintain equivalent standards. The same requirements for admission, enrollment and graduation apply to all students, regardless of the time of day or period of the year they attend classes. The college library, laboratories and other facilities are available throughout each session.

## ADMISSION PROCEDURES

Students should observe the following admission procedures:

1. Submit an Application for Admission online at [www.cuyamaca.edu](http://www.cuyamaca.edu) or in the Admissions and Records Office.
2. Request official transcripts to be sent to Cuyamaca College from all colleges attended in the United States. An official transcript is one that has either been sent directly to Cuyamaca College from the issuing institution or one that is hand carried in a sealed envelope. Transcripts submitted by students who never enroll are kept on file for two years.  
  
Cuyamaca College accepts credit from institutions accredited by one of the six regional accrediting associations and foreign transcripts evaluated by either Academic Credentials Evaluation Institute (ACEI) or International Education Research Foundation (IERF). Please refer to the specific guidelines in this catalog regarding the evaluation of foreign transcripts.
3. Take the English and Math Assessment. The recommendations that result from this assessment will be helpful in selecting appropriate English and math classes and in planning a successful college program. Students may obtain clearance from the assessment process if they have:
  - taken an English and math class at a college and received a grade of Credit or a minimum grade of "C," or
  - earned an Associate Degree or higher, or
  - completed an Advanced Placement Examination, or
  - completed the assessment process at a local college.

To obtain a clearance, you are required to bring to the Counseling Center one of the following:

- a grade report, or
  - a transcript or diploma, or
  - a copy of your Advanced Placement Examination results with scores of 3, 4 or 5, or
  - assessment scores from any local college.
4. Arrange for a counseling appointment for program advisement.
  5. Complete the formal registration process as outlined in the class schedule.

## ADMISSION REQUIREMENTS

High school graduates or equivalent, or students who are over 18 years of age and have the ability to benefit from the instruction offered, may attend Cuyamaca College.

While it may be advisable for a student to qualify for a high school diploma through a local adult school, non-graduates over 18 years of age may be admitted directly to Cuyamaca College.

Transfers from accredited colleges and universities are eligible for admission to Cuyamaca College.

High school students who are in the 11th and 12th grades may attend with the approval of the appropriate high school official, the appropriate college official and the student's parents.

## ASSESSMENT

The faculty, staff and administration of Cuyamaca College are committed to students' success. Programs for student success have been designed which include a component that encourages new, readmit and transfer students to participate in an assessment process. Counselors review the results of the assessments with students to help them select courses and develop an educational plan. The Assessment Office provides individual and group testing of English, mathematics and ESL. The Assessment Office also provides Ability to Benefit (ATB) tests for financial aid purposes. Assessments for suitability to major area of study and/or vocational programs are either self-initiated and conducted by the Career and Student Employment Center or administered within the framework of a Personal Development Counseling course. This office is located in Z200 in the Student Services One Stop Center. For more information, call (619) 660-4426 or visit our website at [www.cuyamaca.edu/assessment](http://www.cuyamaca.edu/assessment).

## ENROLLMENT VERIFICATIONS

Each student who has an academic record on file at Cuyamaca College and who is not in arrears to the college with regards to fees, tuition, loans or other charges may request verification of enrollment (commonly used to verify enrollment for insurance purposes, scholarships, student worker eligibility, etc.) from the Admissions and Records Office. Verification of enrollment may be obtained at \$3 per

copy. Exception: This charge will not be assessed for student loan deferments. An emergency or rush verification of enrollment will be provided for \$5 per copy.

## FEES

Cuyamaca College is part of the California Community College system and requires enrollment, student center construction and health services fees for all students, payable at the time of registration. The Board of Governors Waiver Program provides methods to assist low income students pay these fees. Eligibility requirements are available in the Financial Aid Office.

Students may purchase daily or semester parking permits. If a student elects to purchase a multi-car parking permit, the permit may be used on any number of vehicles, but entitles the student to the use of a single parking space per permit. See "Parking and Traffic Regulations" for more information.

Students are required to purchase their own textbooks and supplies and may be required to pay for equipment which is lost or broken after it has been issued.

All students are encouraged to support the student activity program through the purchase of a Student Benefit Card.

## INSTRUCTIONAL MATERIALS

Students may be required to purchase instructional and other materials required for a credit or non-credit course, provided that such materials are of continuing value to a student outside of the classroom setting, and provided that such materials are not solely or exclusively available from the District.

## INTERNATIONAL STUDENT PROGRAM

### ADMISSION

- Applications for admission must be received by the following deadlines:
  - Fall semester – June 1
  - Spring semester – November 1

All application materials must be received by the above deadlines.
- TOEFL scores must be submitted in order to be considered for admission. The minimum score is 450 or a 133 TOEFL computer score. The TOEFL test must be completed by the application deadline.
- New students must enroll in the appropriate level English class.

### FULL-TIME STATUS

An international student must maintain a minimum of 12 units each Fall and Spring semester at Cuyamaca College.

### FINANCIAL RESOURCES

- Each international student must submit a complete financial statement. The financial statement must indicate the ability of the student to finance the year's education to the satisfaction of the Admissions and Records Office (approximately \$16,480 per year).
- An international student attending Cuyamaca College must pay international student tuition and other fees as required by the Governing Board.
- Financial aid is not available for international students.
- All employment requires approval by petition to the International Student Committee. In some instances an international student may, after completing at least two semesters, work on campus for 20 hours per week. Working off campus while attending college requires approval by the Immigration and Naturalization Service and the International Student Committee.

### HEALTH

Cuyamaca College **strongly** recommends that international students obtain a health and accident insurance policy. The Health and Wellness Center has information on where to acquire such a policy.

### HOUSING

Cuyamaca College does not have on-campus housing; however, we do work with a homestay agency and have many apartments nearby.

### GRADING STANDARDS

International students are subject to all Cuyamaca College grading, probation and disqualification standards.

### ADVANCED DEGREES

International students with an associate degree or its equivalent are considered beyond the scope of community colleges and are discouraged from applying to Cuyamaca College.

### NOTIFICATION OF ADMISSION

Students will be notified of their acceptance to Cuyamaca College as soon as their application materials are received and approved. Students need to be available for preregistration orientation and educational counseling two weeks prior to the start of each semester.

## REFUND SCHEDULE

The refund schedule for international student tuition, nonresident tuition, enrollment, student center construction and health services fees is as follows:

- Full semester courses:
  - 100% refund through first two weeks of instruction
  - 0% refund after second week of instruction
- 8 week courses:
  - 100% refund through first week of instruction
  - 0% refund after first week of instruction
- Other short-term classes:
  - Contact the Admissions and Records Office or see the current class schedule for dates.

**NONRESIDENT TUITION REFUND**

Refunds after the refund deadline will be made for the following reasons only:

1. *Erroneous determination of nonresident status.* If a student is erroneously determined to be a nonresident and, consequently, a tuition fee is paid, such fee is refundable in full, provided acceptable proof of state residence is presented within the period for which the fee was paid.
2. *Compulsory military service.*

**RESIDENCY INFORMATION**

Each person enrolled or applying for admission to any California community college will provide such information and evidence of residence as deemed necessary by the District Governing Board to determine residence classification. Falsification of residency information may result in admission to the college being denied. Guidelines for determining residency are outlined in the California Administrative and Education Codes. The determination of a person's classification will be made in accordance with the provisions of these policies and the residence determination date for the semester or session for which the person proposes to attend. The following is a summary of residency guidelines and is by no means complete. Changes may have been made in the statutes and regulations since the time this catalog was published. For more information, contact the Residency Specialist in the Admissions and Records Office.

**I. RESIDENCE CLASSIFICATION**

- A. A "resident" is a person who has been both physically present, and has established intent to make California his/her residence for more than one year immediately preceding the residence determination date (Section 54020 of Title 5 of the California Administrative Code). The "residence determination date" is the day immediately preceding the first day of instruction of the semester or session to which the person seeks admission.
- B. A "nonresident" is a person who has not been both physically present or established intent to make California his/her residence for more than one year immediately preceding the residence determination date. Persons so classified, unless they qualify under one or more of the exceptions later enumerated, will be required to pay a tuition fee as established by the Grossmont-Cuyamaca Community College District Governing Board.

**II. DETERMINATION OF RESIDENCE**

- A. Residence. To determine a person's place of residence, the following rules are observed:
  1. Every person has, in law, a residence.
  2. Every person who is married or 18 years of age, or older, and not precluded from doing so, may establish residence.
  3. There can only be one residence.

4. Residence is the place where one remains when not called elsewhere for labor or other special or temporary purposes, and to which one returns in seasons of repose.
  5. A residence cannot be lost until another is gained.
  6. Residence can be changed only by the union of act and intent.
  7. A man or woman may establish his or her residence. A person's residence shall not be derived from that of his or her spouse.
- B. Adults. Persons 18 years of age or older may establish residence in accordance with Section A.
  - C. Minors. Persons under 18 years of age may establish residence in accordance with the following:
    1. A married minor may establish his/her own residence.
    2. If the parents are permanently separated, the residence of the minor is the residence of the parent with whom the minor lives.
    3. If both parents are deceased, and there is no court-appointed guardian, the minor may establish his/her own residence.
    4. The residence of an unmarried minor who has a parent living cannot be changed by his or her own act, by the appointment of a legal guardian, or by relinquishment of a parent's right of control, unless the minor qualifies for the two-year care and control or the self-support exception.
    5. A person who is a minor, and resides with either the father or mother (or both), may be classified as a resident of California if the parent (or parents) with whom the minor lives has established residence in California for more than one year prior to the residence determination date.

**III. FACTORS TO BE CONSIDERED IN DETERMINING RESIDENCE**

- A. Residence is established only by the union of both physical presence and intent. No one factor is decisive, however, the college may look for certain objective manifestations of subjective intent on the part of one asserting that residence status has been established, or has been maintained in spite of an absence from California.

The following factors may be used to demonstrate evidence of maintaining physical presence:

1. Carrying on of a business or employment in California.
2. Maintaining active savings and checking accounts in California banks.
3. Ownership of residential property or continuous occupancy of rented or leased property in California.
4. Active resident membership in service or social clubs.

The following factors may be used to demonstrate intent to reside in California:

1. Filing California personal income taxes as a resident.
  2. Registering to vote and voting in California elections.
  3. Possession of a California Driver's License or California Identification Card from the Department of Motor Vehicles.
  4. Possession of California resident vehicle license plates.
  5. Petitioning for a divorce or lawsuit as a resident of California.
  6. Carrying on of a business or employment in California.
  7. Possession of a California resident hunting or fishing license.
  8. Licensing from California for professional practice.
  9. California address on federal income tax forms and W-2 forms.
  10. Maintaining a California address as the home of record on military records and on the Leave and Earnings Statement (LES) while in the armed forces.
- B. Factors that are inconsistent with a claim for California residence include, but are not limited to, the following:
1. Filing California State income taxes as a nonresident or filing income taxes as a resident in another state.
  2. Maintaining a driver's license in another state.
  3. Maintaining vehicle registration in another state.
  4. Maintaining voter registration and voting in another state.
  5. Attending an out-of-state institution as a resident of that state.
  6. Petitioning for a divorce or lawsuit as a resident in another state.
- C. The Cuyamaca College admissions/residency questionnaire shall contain a variety of questions directed at establishing the residency classification of a person.
- D. *Exceptions.*
1. Persons who have attended a California high school for at least three years and have graduated from a California high school, or have attained the equivalent status, are exempt from paying nonresident tuition. This exemption applies to persons who would usually be classified as nonresidents, including undocumented immigrants. Nonimmigrant aliens, including persons on F and B visas, are not eligible for this exemption.
  2. A minor who remains in California after resident parents establish residence elsewhere (within one year immediately prior to the residence determination date), may retain resident status until the minor has attained the age of majority and has resided in California long enough to establish residence, so long as, once enrolled, continuous full-time attendance is maintained. Nothing in this section will require attendance during summer intersession or any session beyond the normal academic year.
  3. A minor who has been entirely self-supporting and actually present in California for more than one year immediately preceding the residence determination date, with the intention of acquiring a residence therein, shall be entitled to resident classification until he/she has resided in California the minimum time necessary to become a resident. Certain requirements must be met.
  4. A minor shall be entitled to resident classification if, immediately prior to enrolling at a California community college, the minor has lived with and been under the continuous direct care and control of any adult or adults, other than a parent, for a period of not less than two years, provided that the adult or adults having such control have been domiciled in California for more than one year immediately prior to the residence determination date. This exception shall continue until the student has attained the age of majority and has resided in California the minimum time necessary to become a resident so long as continuous full-time attendance is maintained.
  5. An unmarried minor alien will be entitled to resident classification if the minor and the minor's parents have not been precluded by the Immigration and Nationality Act from establishing domicile in the United States, provided that the parents have established residence in California for more than one year prior to the residence determination date for the semester or session for which the minor proposes to attend. An exception is made to minors, for establishing residency, if the minor is a U.S. citizen and his/her parents are undocumented aliens.
  6. A person who is an adult alien will be entitled to resident classification if he/she is not precluded by the Immigration and Nationality Act from establishing domicile in the United States, provided that he/she has established residence in California for more than one year prior to the residence determination date for the semester or session for which he/she proposes to attend.

7. A person classified as a nonresident shall not obtain resident classification, as a result of maintaining continuous attendance at an institution, without meeting the other requirements of obtaining such classification.
8. An undergraduate student who is a dependent (natural or adopted child, stepchild or spouse) of a member of the armed forces of the United States stationed in California on active duty, is exempt from paying nonresident tuition for the duration of his/her enrollment at a California community college. Graduate dependents are exempt from paying nonresident tuition for one year from the date of his/her arrival in California. If the member of the armed forces, whose undergraduate dependent is in attendance at Cuyamaca College (1) is transferred, on military orders, to a place outside of California, or (2) retires from active duty, the dependent shall not lose his or her exemption status for the one year duration it takes to establish residency. After one year has elapsed, the dependent is subject to reclassification according to the policies stated in this section.
9. An undergraduate student who is a member of the armed forces of the United States stationed in California on active duty, except a member assigned for educational purposes to state-supported institutions of higher education, shall be exempt from paying nonresident tuition for the duration of his/her enrollment at a California community college. Graduate active military students are exempt from paying nonresident tuition for one year from the date of his/her arrival in California. After one year has elapsed, the student is subject to reclassification according to the policies stated in this section.
10. An undergraduate student who was a member of the armed forces stationed in California on active duty for more than one year immediately prior to being discharged, shall be exempt from paying nonresident tuition for up to one year for the time he/she lives in California after being discharged. This one year waiver after the discharge date allows the time necessary to establish residence. After one year has elapsed, the student is subject to reclassification according to the policies stated in this section.
11. A person who is an apprentice, as defined in Section 3077 of the Labor Code, will be entitled to resident classification.
12. A person holding a valid credential authorizing service in the public schools of California and who is employed by a school district in a full-time position requiring certification qualifications for the college year in which the person enrolls, shall be entitled to resident classification if such person meets any of the following requirements:
  - a. Holding of a provisional public school credential and enrollment in courses necessary to obtain another type of credential authorizing service in the public schools.
  - b. Holding a public school credential issued pursuant to Section 44250 and enrollment in courses necessary to fulfill credential requirements.
  - c. Enrollment in courses necessary to fulfill the requirements for a fifth year of education prescribed by subdivision (b) of Section 44259.
13. A person who is a full-time employee of a California community college, California State university or college, the University of California, or the California Maritime Academy; or the child or spouse of that person, may be entitled to resident classification until he/she has resided in California the minimum time necessary to become a resident.
14. For purposes of the nonresident tuition fee, a community college district shall disregard the time during which a person living in the district resided outside of California if:
  - a. The change of residence to a place outside of California was due to a job transfer and was made at the request of the person's employer or the employer of the person's spouse or, in the case of a person who resided with and was a dependent of the person's parents, the change of residence was made at the request of an employer of either of the person's parents.
  - b. Such absence from California was for a period of not more than four years.
  - c. At the time of application for admission to a college maintained by the district, the person would qualify as a resident if the period of the person's absence from California was disregarded.

A nonresident tuition fee shall not be charged to a person who meets each of the conditions specified in subdivisions a. to c., inclusive.

#### IV. REVIEW AND APPEAL OF CLASSIFICATION

Any person, following a final decision on residence classification by the college, may make a written appeal to the Chancellor of the District or designee within 30 calendar days of notification of final decision by the campus regarding classification. The Chancellor, on the basis of the Statement of Legal Residence, pertinent information contained in the file of the Dean of Admissions and Records, and information contained in the person's appeal, will make the determination and notify the person by United States Mail, postage prepaid.

## V. RECLASSIFICATION AND FINANCIAL INDEPENDENCE

Students must complete reclassification forms, which are available in the Admissions and Records Office, for a change in classification from nonresident to resident status. Students will be requested to provide appropriate documentation to prove California residence, for more than one year prior to the residence determination date, for the semester or session which the student is claiming resident status.

Education Code Section 68044 requires that the financial independence of a nonresident student seeking reclassification as a resident be included in the factors to be considered in the determination of residence.

## VI. NONRESIDENT TUITION

A person classified as a nonresident will be required to pay nonresident tuition, in addition to other fees required by the college. Nonresident tuition must be paid at the time of registration.

## VII. INTERNATIONAL STUDENT TUITION

A nonresident person who is a citizen and resident of a foreign country will be required to pay international student tuition, in addition to other fees required by the college. International student tuition must be paid at the time of registration.

# TRANSCRIPTS

Each student who has an academic record on file at Cuyamaca College and who is not in arrears to the college with regard to fees, tuition, loans or other charges may request transcripts from the Admissions and Records Office. Two transcripts of records are provided without charge; additional copies may be obtained at \$3 per copy. An emergency or rush transcript will be provided for \$5 per copy.

# TRANSFER CREDIT

## EVALUATION OF U.S. TRANSCRIPTS

Courses taken at a regionally accredited college or university and designated as appropriate for general education, Associate Degree or baccalaureate credit by that institution will be accepted by Cuyamaca College for credit. Cuyamaca College adheres to California policies governing reciprocity and acceptance of general education credit. The extent to which transfer courses satisfy specific certificate and degree requirements is determined by a review of comparability to courses in the Cuyamaca College curriculum.

Courses completed at institutions without regional accreditation or taken at a regionally accredited institution as part of a professional program (medical, dental, veterinary, optical, etc.) are not generally accepted.

## EVALUATION OF FOREIGN TRANSCRIPTS

Transcripts (educational credentials) issued in foreign countries from non-American system institutions and those in languages other than English require special handling. Each foreign transcript must be translated into English and submitted to one of the companies listed below for an official evaluation.

Cuyamaca College accepts the evaluation of foreign transcripts **only** from the following **two** academic evaluations companies:

1. **Academic Credentials Evaluation Institute, Inc. (ACEI)**  
P.O. Box 6908  
Beverly Hills, CA 90212 USA  
TEL (310) 275-3530  
FAX (310) 275-3528  
[www.acei1.com](http://www.acei1.com)
2. **International Education Research Foundation (IERF)**  
P.O. Box 366S  
Culver City, CA 90231-366S USA  
TEL (310) 390-6276  
FAX (310) 397-7686

You will need to contact the evaluation company you select for their particular foreign transcripts evaluation procedure. Once completed, have the evaluation report mailed to the Evaluations Office, Cuyamaca College, 900 Rancho San Diego Parkway, El Cajon, CA 92019.

## CUYAMACA COLLEGE'S PROCEDURE FOR THE EVALUATION OF FOREIGN TRANSCRIPTS

1. We must receive a detailed evaluation report from one of the companies listed above with **subject breakdowns, course descriptions** and **grades** from the *official* foreign transcripts. The official report must be **in English** and in a *sealed* envelope.
2. The official report will be reviewed by the Cuyamaca College Evaluations Office regarding the possible clearing of general education courses for graduation.
3. **English** and **speech** courses on any evaluation report will be awarded elective credit only.
4. Courses will **only** be used to satisfy major requirements with the approval of the department on a "Modification of Major" form.
5. Courses will **not** be used for General Education Breadth or IGETC certifications.
6. In some instances, additional documentation such as the course syllabus or detailed course description, may be needed before an evaluation of foreign coursework can be completed.
7. Official transcripts will not be required by Cuyamaca College since the official transcripts are submitted to the evaluation service.

## VETERANS SERVICES

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Upon filing an application for admission to Cuyamaca College a veteran should immediately contact the Veterans Specialist in Admissions and Records. The military form DD-214 must be presented to the Veterans Office.

Veterans must request official transcripts of all previous college work to be sent to the Admissions and Records Office. An official transcript is one that has been sent directly to Cuyamaca College from the issuing institution.

Veterans who have completed at least one year of honorable active service will receive two units of credit for Exercise Science. To receive credit for military service, a DD-214 or appropriate military records must be submitted to the Admissions and Records Office.

A veteran may not repeat a course and receive veterans' benefits where a "D" or "F" grade was received unless the course is required for graduation or a grade of "C" is required for the degree.

Veterans should pay special attention to add/drop deadlines and consult the campus Veterans Office when any change in enrollment is made.

Any veteran who petitions for readmission to the college following disqualification must meet with a counselor and have the counselor make a recommendation on the petition prior to being considered for readmission.

Veterans should be aware that short-term classes, telecourses and other flexible schedules may create change of training time affecting benefits. Check with the Veterans Office before registering for a course that does not begin on the first date of the semester and end on the last date of the semester.



# FOR SERVICES STUDENTS

## Computer & Information Science - CIS

To meet the needs of a fast paced and highly technical world, Cuyamaca College offers degree programs in the following fields: Computer Network Administration, Telecommunications Networking Technology and Web Development.

Computer and Information Science also offers certificates of proficiency in the following areas: Cisco Systems, Computer Programming, Network Servicing Technology, Operating Systems, Telecommunications Servicing Technology, Web Design, Web Programming and Web Server Management.



Ted Chandler,  
CIS Instructor



G r o w i n g   F o r   Y o u r   F u t u r e

## ASSOCIATED STUDENTS OF CUYAMACA COLLEGE (ASCC)

Cuyamaca College supports the organization of students known as the Associated Students of Cuyamaca College (ASCC). The association promotes the following objectives:

- To serve as an active student voice in the operation of the college, including both shared governance and the management of student activities.
- To provide an opportunity for leadership experience and training for students.
- To enhance, wherever possible, the general excellence of the college, uniting the interests of all persons – faculty, administration, students and the local community.

### ASSOCIATED STUDENT GOVERNMENT (ASG) SHARED GOVERNANCE

Since virtually all major decisions made at Cuyamaca College affect students in some way, student input to the various decision-making bodies is relevant, necessary and welcomed. ASCC has adopted a constitution which established an organized student voice at Cuyamaca College. This voice is facilitated by the ASCC and is a critical constituency among the college governance structure.

ASCC meetings are held weekly; dates and times are posted on the ASCC bulletin board. For more information, please call (619) 660-4273. All members of the college community are welcome to attend. Additional information regarding student government is available in the ASCC Office, the Student Center and the Student Affairs Office.

### ASSOCIATED STUDENT SERVICES AND ACTIVITIES

With the support of the student body, the ASCC plans, organizes, promotes, sponsors and finances a comprehensive program of activities and services for all Cuyamaca College students. The activities program is organized to achieve the following objectives:

- To provide opportunities for the development of the social and cultural interests of the entire college community.
- To afford avenues for the enrichment of each individual's life through sharing and enjoying a group spirit of mutual responsibility, leadership and creativity.
- To promote college spirit and community awareness. The variety of departments, clubs and facilities permits a student to experience a broad spectrum of interest, including but not limited to, music, art, drama, sports, ecology, community service and business.

### STUDENT AFFAIRS OFFICE

The Assistant Dean of Student Affairs acts in an advisory role to the Associated Students of Cuyamaca College, as well as to the Inter-Club Council. Opportunities are provided for students to organize, meet, and work together to extend their academic learning process through campus involvement and participation. By providing this educational culture, the Student Affairs Office helps foster the intellectual, social, and emotional growth of the campus community.

The Student Affairs Office also serves as a liaison to the Bookstore and Food Services operation at Cuyamaca and welcomes student involvement.

Facilitating student complaints and grievances in compliance with District policies and helping students learn about college policies and procedures is a major component of this office.

In addition, overseeing ASCC and Student Trustee elections and yearly Commencement ceremonies are primary responsibilities of this office.

Students interested in obtaining club charters and ASCC candidate petitions should come to the Student Affairs Office, located in Z113.

### STUDENT BENEFIT CARD

A Student Benefit Card may be purchased for \$10. This card entitles a student to the usage of computers, free admission to all college-sponsored athletic events, as well as special college and community discounts.

The Student Benefit Card not only benefits students, it also allows the ASCC to support various activities and programs on campus.

For additional information, please contact the Student Center at (619) 660-4274 or Student Affairs Office at (619) 660-4491.

### ATHLETICS AND RELATED ACTIVITIES

Cuyamaca College participates in and supports excellent intercollegiate programs. Men's intercollegiate programs include basketball, golf, soccer, track and cross-country. Women's athletic teams include soccer, track, cross-country, basketball, volleyball and tennis.

### HONOR SOCIETY/PHI THETA KAPPA

Phi Theta Kappa is an honors organization reflecting the hallmarks of scholarship, leadership, service, and fellowship. The programs of the Society are designed to give the members opportunities for personal growth in all areas, encouraging the more balanced individual. The organization was created in 1918. Cuyamaca College has an honor society chapter. The requirements for admission as a provisional member are:

- Academic excellence as defined by a GPA of 3.50 or better,
- Must have completed a minimum of twelve (12) semester units at Cuyamaca College that qualify for an Associate Degree program, and
- Each prospective student must pay a non-refundable administration processing fee of \$15 at the time of filing application and profile forms for provisional membership admission.

Students must apply for membership.

### COLLEGE STUDENT ORGANIZATIONS/CLUBS

Cuyamaca College offers a wide spectrum of special interest and program-related clubs for student participation.

Information on how to organize a new club or join an existing one is available in the Student Affairs Office. College clubs include Phi Theta Kappa, EOPS Club, Club Able, Women in Technology and many others from which to choose.

An Inter-Club Council, consisting of representatives from each college club on campus, exists to coordinate events and activities and share ideas.

In accordance with Sections 76035, 32050 and 32051 of the Education Code of the State of California, the Governing Board of the Grossmont-Cuyamaca Community College District has ruled that secret fraternities, sororities or clubs may not be formed. Moreover, Section 32051 of the Education Code forbids the practice of hazing by organizations or individuals either on or off the Cuyamaca College campus.

### **CULTURAL ACTIVITIES**

As part of the educational offering, Cuyamaca College presents a year-long series of cultural events. Among the presentations are lectures by persons of note in the political and science disciplines, artists in the fields of music and dance, art festivals, film series, and other events that add variety to the intellectual and cultural life of the college community. These include both day and evening programs which are open to students and the general public.

A selected day each month serves as "College Hour," when college-wide and specialized activities are held as enriching experiences outside of classroom academic life.

## **BOOKSTORE**

Barnes & Noble Bookstores, Inc., the world's largest bookseller, manages the Cuyamaca College Bookstore. The bookstore carries all required course textbooks and supplies, as well as Cuyamaca College emblematic giftware and clothing. A portion of the revenues generated by the bookstore is paid to the Grossmont-Cuyamaca Community College District and reallocated for the improvement and expansion of college programs.

## **CUYAMACA COLLEGE CalWORKs**

The Cuyamaca College CalWORKs (California Work Opportunities and Responsibility to Kids) program helps students who receive family cash assistance fulfill their Welfare-to-Work program requirements and provides additional support services. CalWORKs assists eligible students arrange subsidized child care, obtain necessary textbooks and supplies, and provides on-campus, paid work study. Our CalWORKs counselors work with each student to develop an education plan that leads to self-sufficiency and meets Welfare-to-Work requirements. In addition to providing counseling services for each student, our counselors help students access campus and community resources.

If you are a current Welfare-to-Work participant, or believe that you could benefit from family cash aid, contact the

CalWORKs office in the Student Services One-Stop Center for more information at 619-660-4344. Let us be your liaison with your County CalWORKs Welfare-to-Work staff.

## **CAREER AND STUDENT EMPLOYMENT CENTER**

The College Career and Student Employment Center provides career planning and employment assistance to all students, staff and community members. The Career Center provides assistance in the areas of career assessment, career exploration, goal setting, decision-making, labor market information, and the education and training required. Information regarding various careers is available in the Career Center Library, through workshops, career fairs and individual appointments with professional staff. Career assessment tests are available to help students explore their interests, skills, work values and personality type as an aid in making career decisions. A career library is available, as well as computerized occupational information which contains information on local, state and national trends, salaries and skills for various jobs. Internet access is also available.

The Career and Student Employment Center also refers students to on-campus and off-campus job openings and assists students with employment skills such as developing resumes, interviewing and job search skills. Jobs are open to Cuyamaca students and alumni. Jobs are posted on the "Cuyamaca Job Link" on the Internet. For job referral services, students must apply in person at the Center. Jobs are also posted on the Employment Bulletin Board located across from the Administration building. Students register by completing a Student Application Form, presenting their Social Security Card and picture identification. The use of computers is available to perform job search and create resumes. Over 200 employer files containing employment information are also available in the Center.

The Career and Student Employment Center is located in Z200 in the Student Services Center (next to Counseling) or you can call (619) 660-4450. Visit us at our website at [www.cuyamaca.edu/careerserv/](http://www.cuyamaca.edu/careerserv/) for more information.

## **CHILD DEVELOPMENT CENTER**

The Child Development Center program is a critical component of the academic program and mirrors the teachings of the Child Development Department. Child Development students use the Center for observations and work experience. The Center serves children of students, faculty, staff and the community with a professional and quality program. The Center's educational philosophy is built on a partnership of children, families and staff, with respect and value for each participant. The Center is open year round, following the College schedule for closures. Hours of operation are Monday through Friday, 7:45 am to 5:15 pm.

## COOPERATIVE AGENCIES RESOURCES FOR EDUCATION (CARE)

CARE is a state-funded program designed to recruit and assist single parent students who are EOPS eligible and receiving TANF/CalWORKs or with a child 13 years of age or under who receives CalWORKs. CARE provides support services and possible grant funds to promote academic success and to assist students in attaining their career and vocational goals. Contact the EOPS office in the Student Services One-Stop Center for more information, or call (619) 660-4204.

## COUNSELING

The Cuyamaca College Counseling Department is committed to helping students achieve their educational and career goals. Whether the goal is to take one course, earn a certificate or an Associate Degree, or transfer to a four-year college, Cuyamaca Counselors are available to assist. The department's commitment is to provide quality educational, career, occupational and personal counseling and create a climate and structure in which each student has a maximum opportunity for self-fulfillment.

### PERSONAL COUNSELING

The Cuyamaca College Counseling Center is staffed with professional counselors who offer individual counseling for students who want assistance in coping with the problems they face in everyday life. Issues relating to self-esteem, anxieties, relationships, and academic performance are common obstacles for college students.

### ACADEMIC ADVISING

Planning is an important step in achieving academic success. Each semester, all students are encouraged to meet with a counselor prior to registration for academic advising, course selection and setting up a student educational plan.

### CAREER ASSESSMENT AND ADVISING

The Counseling Center, in conjunction with the Career Center, specializes in assisting students in choosing a college, a particular major and/or career goal.

### TRANSFER PLANNING

The Counseling staff, in conjunction with the University Transfer Center, provides the most current information to assist in the smooth transition to four-year colleges and universities.

Counseling is located in Z200 in the Student Services One Stop Center, or you can call (619) 660-4429 for information or visit us at our website at [www.cuyamaca.edu/counseling](http://www.cuyamaca.edu/counseling)

## DISABLED STUDENTS PROGRAMS AND SERVICES (DSPS)

Disabled Students Programs and Services provides support services to students with disabilities to enhance their probability for success. These services are

considered over and above other services that are available to all students.

Students who have a disability and require special services and/or equipment in order to succeed in college are asked to contact DSPS, where qualified persons are available to assist with these needs. Academic and disability related counseling are available along with the following services: registration assistance, special parking, transportation assistance on campus, special equipment, high tech computer lab usage, interpreters for the deaf, readers for the blind, note-takers, learning disabilities assessment, additional tutoring, special classes, speech-language strategies, TTY (619-660-4386), and referrals to other colleges and outside agencies such as the Department of Rehabilitation, the Access Center and the Computer Training Center at Grossmont College.

### DISABLED STUDENTS: ACADEMIC ACCOMMODATIONS AND APPEALS

Cuyamaca College recognizes that a disability may prevent a student from demonstrating required math, reading, and writing competencies or from completing course requirements necessary for an AA/AS degree in the same manner as nondisabled students. The college also recognizes the need to accommodate students with documented disabilities to the greatest extent possible without compromising a disabled student's course of study and without compromising the integrity of any student's degree. Contact the DSPS Office for further information.

Affiliation with DSPS is not mandatory in order to receive accommodations. For further information contact the College ADA-504 Coordinator.

### ACCESS AND REGULATIONS

Questions regarding accessibility, Title 5 regulations, VATEA, Americans with Disabilities Act, Section 504 and other laws regarding the disabled should be addressed with DSPS personnel.

## DISTRICT PUBLIC SAFETY DEPARTMENT

The Public Safety Department provides 24 hour-a-day police services to persons and property on college grounds, facilities, parking lots, and at adjacent or offsite locations. However, all persons on college grounds are primarily responsible for their own safety and property.

District Police Officers are sworn officers in compliance with the California Education Code and the California Penal Code, and have full law enforcement authority throughout the state. District Police Officers are vested with full law enforcement powers and responsibilities as local police and sheriff's deputies in your home community.

In addition to the District Police Officers, the Department employs uniformed student Community Service Officers who provide building security, escorts, and assistance with special events.

The District Police have established Memorandums of Understanding (MOUs) with local law enforcement agencies in which our two colleges are located. The MOUs between the District Police and local law enforcement agencies have been in effect since 1998. The mutual agreements allow the District Police to have primary operational responsibility for law enforcement and investigative services on college district property, with the assurance that local law enforcement agencies can be called for assistance and mutual aid as appropriate. Copies of these agreements are available to the public at the Public Safety Department headquarters, located on the Grossmont campus, and are also available at the Public Safety office at the Student Services One-Stop Center on the Cuyamaca campus.

**EMERGENCY SPEED DIALING PAY PHONES**

At least one phone in each group of pay phones throughout both campuses is equipped with emergency speed dialing.

Dialing the pound sign (#) and one (1) will immediately connect the caller to the Public Safety Department. These phones are easily identified by a sign above the phone.

**EMERGENCY CALL BOXES**

Emergencies and other requests for services can also be reported to the District Police by using one of the colored Emergency Call Boxes located throughout both campuses.

Emergency directions in Braille are also on each phone to assist the visually impaired. More information is available through Disabled Students Programs and Services.

**CRIME REPORTING PROCEDURES**

Public Safety Department personnel are available 24 hours-a-day. Emergencies, criminal activities, or other incidents may be reported at any time, day or night, by calling:

<b>EMERGENCIES</b>	911
<b>DISTRICT POLICE</b>	(619) 644-7654
<b>EL CAJON POLICE</b>	(619) 579-3311
<b>S.D. SHERIFF</b>	(858) 565-5200

**OFF-CAMPUS CRIME INFORMATION**

The San Diego County Sheriff's Department and the El Cajon Police Department may provide the District Police with crime data for the areas surrounding both college campuses. The District Police will notify the college community when security problems arise.

**DISTRICT PROPERTY**

District property may not be removed from the campus without prior written authorization from the department Dean or area supervisor. Unauthorized removal of District property from the campus is a violation of the law and violators may face prosecution by the District.

**CRIME PREVENTION**

One of the most essential ingredients of any successful crime prevention program is an informed public. It is the goal of the District Police to inform students and staff in a timely manner of any criminal activity or security problem

that may pose a reasonable threat to their safety. Such information will be distributed to students through this brochure, newsletters, posted notices, or student publications. Faculty and staff are informed through inter-department memos, bulletins and newsletters.

Individuals who need to be on campus other than during regular scheduled work hours must secure authorization from the department chairperson or supervisor prior to their arrival. The District Police should also be notified of their presence. Many campus rooms and areas are protected by intrusion alarms, so before entering these areas, the District Police should be contacted. It is the responsibility of those using rooms, offices or other areas to lock access doors, turn off lights and close all windows. Facilities Services staff and Public Safety Department personnel will check many campus areas during off-hours, but the primary responsibility for security lies with the user.

**CRIME STATISTICS**

Statistics are generated annually by the Public Safety Department for all criminal offenses specified by Federal Law. The published statistics reflect only those crimes that have occurred within the District's jurisdiction and have been reported to the Public Safety Department. The primary jurisdiction of the District Police is the area on both the Grossmont and Cuyamaca College campuses, and the geographic areas contiguous to the campuses or District property, including sidewalks and streets bordering each campus and District property.

Each year the crime statistics for both campuses are submitted to the U.S. Department of Education. These crime statistics are also provided on the Internet by the U.S. Department of Education at: <http://ope.ed.gov/security>

<b>INCIDENTS</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
GC = Grossmont				
CC = Cuyamaca	GC/CC	GC/CC	GC/CC	GC/CC
Alcohol Possession	0/0	0/20	2/1	3/1
Simple Assault	5/0	5/3	4/1	2/1
Aggravated Assault	2/0	0/1	0/0	0/0
Auto Burglary	5/2	15/7	10/0	28/12
Burglary	1/3	16/10	6/0	2/1
Drug/Narcotic Offenses	0/0	0/1	3/1	5/0
Hate Crimes	1/0	1/0	0/0	0/0
Homicide	0/0	0/0	0/0	0/0
Robbery	0/0	0/1	0/0	0/1
Rape	0/0	0/0	0/0	0/0
Sex Offenses	2/2	1/0	1/1	1/0
Stolen Vehicle	1/1	2/0	4/3	27/5
Weapons Possession	1/0	2/0	2/0	1/0
Arson	0/0	0/2	0/0	0/0
Arrests:				
Alcohol	0/0	0/0	0/0	0/0
Drug/Narcotic	0/0	0/0	3/0	5/0
Weapons Possession	0/0	0/0	0/0	1/0

8800 Grossmont College Drive  
 El Cajon, CA 92020-1799  
 (619) 644-7010  
 Website: [www.gcccd.edu](http://www.gcccd.edu)

## EXTENDED OPPORTUNITY PROGRAMS AND SERVICES (EOPS)

The EOPS Program at Cuyamaca College is designed to recruit, inform and assist students who have been identified as economically and educationally disadvantaged. Eligible students are provided with the necessary academic and personal support services to enable them to succeed at Cuyamaca College. Services may include, but are not limited to, financial assistance through work study, grants, orientation to college, priority registration, instructional support services, peer advising and advocacy, personal and academic counseling and transfer advising. Contact the EOPS office in the Student Services One-Stop Center for more information, or call (619) 660-4293.

## FINANCIAL AID

### PURPOSE OF FINANCIAL AID

The purpose of financial aid is to help students who might not otherwise be able to attend school. Although the primary responsibility for meeting college costs rests with the student and/or his or her family, it is recognized that many families have limited resources and are unable to meet the cost of post-secondary education. For this reason, Financial Aid Programs have been established to provide assistance to students with documented financial need. Financial need exists when the cost of education exceeds the resources available to a student. The cost of education includes fees, books and supplies, room and board, personal expenses and transportation. Student earnings from employment, as well as savings, veterans benefits, social security, TANF/CalWORKs and/or expected contribution from parents' income and assets, are some of the resources considered available to a student for the cost of education.

Financial need is determined by the information provided by applicants on the Free Application for Federal Student Aid (FAFSA). If need analysis shows financial circumstances are not sufficient to meet need, Cuyamaca College will attempt to meet the need by offering assistance through the financial aid programs available. The total amount of financial aid cannot exceed documented financial need, and the monies must be used solely for educationally-related costs while attending Cuyamaca College.

## FINANCIAL AID PROGRAMS

### GRANTS

**Board of Governors Waiver:** The State of California through the Board of Governors Fee Waiver program (BOGFW) provides several ways to assist students with paying the mandatory fees (enrollment fee, health services fee and the student center construction fee). Method A waives all the mandatory fees. Method B and C waive the enrollment and health services fees. Students eligible for BOGFW A, B, or C also have parking permit fees over \$20 waived. The program also has a special classification BOGFW that will pay for the enrollment fees only. If applications have not been processed for the BOGFW by

the time of registration, fees will be charged and a refund will be made upon approval of the application. To apply for the BOGFW, please go to: [www.cuyamaca.edu/finaid](http://www.cuyamaca.edu/finaid) and click on "Apply for a Fee Waiver online" on the left-hand side of the webpage. Students who apply for financial aid by submitting a Free Application for Federal Student Aid will also be considered for a waiver. For more information, please visit the Financial Aid office in the Student Services Center.

**Bureau of Indian Affairs:** BIA Grants provide money to help meet the cost of education for Native American students. The amount of the grant varies according to individual agencies of the BIA. Students may apply if they are at least one-quarter American Indian, Eskimo or Aleut, as certified by the BIA and/or tribal group serviced by the BIA, have financial aid eligibility and scholastic ability, are working toward an undergraduate degree, and have completed all of the application requirements. To apply, contact the specific agency that serves the tribe where the student or the student's parent(s) are enrolled. The agency will provide the student with a specific BIA Grant application. Complete the appropriate items and send to the Financial Aid Office. FAFSA must also be completed. Watch for deadlines – each agency establishes its own deadline.

**Cal Grant A:** Cal Grant A is a grant administered by the California Student Aid Commission (CSAC). This grant is for California residents only. It provides assistance to students from low and middle income families who will be attending tuition-charging institutions after leaving Cuyamaca College. Cal Grant A pays all tuition charges at public California colleges or universities and up to \$9,708 of tuition charges at private California colleges or universities. To apply for this program, submit a FAFSA and a GPA Verification form postmarked by March 2, prior to the academic year.

**Cal Grant B:** Cal Grant B is a grant administered by CSAC. It provides access costs for low income students up to \$1,551 per year for up to four years. This grant is for California residents only. To apply for this program, submit a FAFSA and a GPA Verification form postmarked by March 2, prior to the academic year.

**Cal Grant C:** Cal Grant C is a grant administered by CSAC. Cal Grant C is for vocational students from low and middle income families. The maximum award is \$576. This grant is for California residents only. To qualify, the student must be enrolled in an approved vocational course of study from four months to two years in length. Cal Grant C's are awarded for the length of the vocational course. To apply for this program, submit a FAFSA and a GPA Verification form postmarked by March 2, and September 2, prior to the academic year.

**Cal Grant Community College Deadline:** Community college students who miss the March 2, priority deadline may continue to apply for a limited number of special community college Cal Grants (A or B) until September 2. Students must list a community college first on their FAFSA and submit the FAFSA and a GPA Verification form postmarked by September 2.

**Federal Work Study (FWS):** FWS is a federally-funded program which gives students the opportunity to earn part or all of their financial need by working on campus while in school. Jobs available include teacher's aide, clerk, grounds person, custodian and lab assistant. The student's wage will be determined by the type and difficulty of the work to which the student is assigned.

This type of part-time work can add to the student's educational experience and can be a valuable asset when seeking employment after graduation.

**Extended Opportunity Programs & Services Grant (EOPS):** EOPS is a state-funded program designed primarily for the orientation, recruitment and retention of California residents who are considered educationally disadvantaged (as determined by EOPS), have not completed more than 70 units of degree applicable course work, are enrolled full-time, and qualify for the Board of Governors Waiver, Method A or B. The EOPS Program also offers grants and support services such as tutoring and peer counseling. Grant awards range from \$100 to \$900 per academic year.

**Cooperative Agencies Resources for Education Grant (CARE):** CARE is a state-funded program designed to recruit and assist single parent recipients of TANF/CalWORKs who are full-time students eligible for the EOPS Program. Students must have at least one child under 13 years of age or under. Grants are given to assist students with childcare costs.

**Federal Pell Grant:** The Federal Pell Grant is available for undergraduate study until students receive their first bachelor's degree to a maximum of five years. Federal Pell Grants range from \$100 to \$4,050 per academic year depending upon the "Expected Family Contribution" (as determined by the federal government), the cost of attendance and the student's enrollment status. Undergraduate students who have submitted a valid Student Aid Report (SAR) may qualify for the Federal Pell Grant.

**Federal Supplemental Educational Opportunity Grant (FSEOG):** FSEOG is a federal grant program for undergraduate students who have "exceptional need" and who have not received a bachelor's degree. First priority will be given to students enrolled full-time with an Expected Family Contribution (EFC) of 900 or below. Generally, the maximum FSEOG award at Cuyamaca College will be \$900 per academic year.

## LOANS

### Federal Family Educational Loan Program

**Federal Stafford Loan (FSL):** An FSL is a low-interest loan made to the student by a lender such as a bank, credit union or savings and loan association to help the student pay for his or her education. These loans are insured by the guarantee agency in the student's state and reinsured by the Federal Government. The interest rate is variable (adjusted annually) but will never exceed 8.25%. Grade level one students may borrow up to a maximum of \$2625 (subsidized and/or unsubsidized Stafford loan) per academic year. Grade level two students may borrow up to a maximum of

\$3500 (subsidized and/or unsubsidized Stafford loan) per academic year. Total borrowing may not exceed \$23,000 for all undergraduate study. To apply for a Subsidized or Unsubsidized Federal Stafford Loan, a student must first apply for Federal Financial Aid via the FAFSA.

**Subsidized Federal Stafford Loan:** These loans are available to students who demonstrate financial need. Students who are eligible to apply for an FSL based upon need qualify to have the Federal Government pay the interest on their loan while they are in school and during deferment periods.

**Unsubsidized Federal Stafford Loan:** These loans are available to students who do not qualify for need-based financial aid. Students are responsible for monthly interest payments (or capitalization of interest) from the date the loan is disbursed.

**Emergency Book Loan Fund:** The Emergency Book Loan Program provides 30-day interest free loans to enable students experiencing a temporary shortage of funds to purchase their books. Students must be enrolled in a minimum of six units and are required to have a co-signer who is at least 21 years of age whose full-time employment can be verified. Depending on the student's enrollment status, loans can range from \$75 to \$150. These monies are made available through donations from the Associated Students of Cuyamaca College, Grossmont-Cuyamaca Community College District Foundation, Grossmont-Cuyamaca Alumni Association, Cuyamaca College Faculty and the Spring Valley Rotary Club.

## OTHER SOURCES OF FUNDS

Other assistance programs are available for students through government agencies such as the County Department of Social Services, Social Security Administration and Veterans Administration. Each of these have offices in the local area with counselors to provide detailed guidance. When a student applies for assistance through the Financial Aid Office, documentation of the money received from these programs is required.

Check with the Career Center and Job Placement Office regarding job announcements. A bulletin board located in the hallway between the D and E buildings also has notices of jobs available.

## WITHDRAWALS AND REPAYMENT OF FINANCIAL AID FUNDS

Students receiving federal financial aid who *withdraw from all of their classes during the first 60% of a term*, will be required to repay a portion of the federal grants that they have received. That is because a student must "earn" their financial aid. Financial aid is "earned" for each day you are enrolled in the semester.

For example, if a semester starts on August 21 and withdraw from all of your classes on October 23, you will have "earned" 63 days worth of financial aid eligibility. The amount you have to repay will depend on the number of days you were enrolled compared to the number of days in the semester. For example, if there are 121 days in the

semester, you would have only earned 52% of the aid you received (63 days/121 days in the term = 52%). If you had received a \$1500 Pell Grant award for the semester, you would have only earned \$780 of the Pell Grant (\$1500 x 52% = \$780). Because you have received \$720 more financial aid than you "earned" (\$1500 - \$780 = \$720), you will be required to repay half of the amount you did not earn. The amount you would be required to pay back in this case would be no more than \$360.

*Please note: If you fail all of your classes in a term, you will have only earned 50% of the Pell and/or SEOG that you received and you will be billed for the amount you did not earn. This rule applies even if you were enrolled in classes for the whole term.*

If you are required to repay funds to the federal government, you will be billed and have 45 days to repay the funds in full or to set up a repayment schedule. You will be ineligible for any further financial aid at any college in the United States until you have repaid the funds in full or you have set up a repayment schedule and make repayments according to the repayment schedule.

**BUDGETS**

Cuyamaca College has a diverse student population which means that people have different economic lifestyles and obligations. The budgets used by the Financial Aid Office are expressions of average costs for the student population; they are intended to provide sufficient funds for most students in most circumstances. These budgets are not and cannot be intended to meet each person's full financial responsibilities. For a student who comes to Cuyamaca College relatively free of past obligations, these budgets should provide a sufficient economic base for a student to survive financially and attend school.

Since one purpose of the budget is to fairly distribute the available dollars among all eligible students, it is impossible to take into account all of the situations in which people find themselves or all of the consumer choices they make. People make their own budget decisions about what is most important to them. They may choose to share a low-rent apartment in order to have a car, or they may choose to live alone within biking distance of the campus. The choices are there for each individual.

The following budgets for the 2006-2007 academic year are based on full-time (12 semester units or more) enrollment at Cuyamaca College:

Housing Status	Living with Parent(s)	Living Away From Parent(s)	Living with Relatives/Friends
Fees	\$ 766	\$ 766	\$ 766
Books and Supplies	1,200	1,200	1,200
Food and Housing	3,000	8,500	5,900
Personal Expenses	1,500	1,800	1,800
Transportation	<u>900</u>	<u>900</u>	<u>900</u>
<b>TOTAL</b>	<b>\$7,366</b>	<b>\$13,166</b>	<b>\$10,566</b>

For disabled students, additional allowances may be made for documented special costs that are educationally related but not covered by other assisting agencies. For the current academic year budget, please check with the Financial Aid Office.

Contact the Financial Aid Office, located in the Student Services One-Stop Center, for further information regarding eligibility, programs available, applications or other information.

**HEALTH & WELLNESS CENTER**

Room A111 Telephone: (619) 660-4200  
 To promote the health and well-being of students, the Health & Wellness Center is maintained by a registered nurse and support staff who evaluate and care for the health needs of Cuyamaca College students. Services are available on a confidential basis. Services include first aid and urgent care; blood pressure, glucose, vision and hearing screenings; tuberculosis clearance testing; body composition analysis; and illness and injury assessment, care and referral to community resources. The Center is also a health education resource providing up to date information and direction on subjects including nutrition, illness prevention, substance abuse, birth control, sexually transmitted diseases, and much more.

The mandatory health fee which supports the Center's programs also provides for insurance coverage should a student be injured during a supervised, on-campus or school-related activity. Report all accidents and injuries to the Center. Insurance forms are available.

**HIGH SCHOOL AND COMMUNITY RELATIONS (OUTREACH)**

The office of High School and Community Relations (Outreach) is the official representative of Cuyamaca Community College. Outreach is Cuyamaca's link to local high schools and the community. For information about admissions requirements, academic programs, and other student services, the Outreach office is the campus resource.

Specific services provided by the Outreach staff include distribution of printed information about the college and its programs to students, teachers, counselors, and other members of the community. Visits to schools for career fairs, college nights, peer advising, and interactive multimedia presentations are also part of the Outreach program. Tours of the college campus are provided for individuals, classes and schools.

Outreach invites all prospective students and interested members of the community to take advantage of the programs and services offered. To find out how, please contact the High School and Community Relations (Outreach) office, located in Z300 or call (619) 660-4264.

**INTERCOLLEGIATE ATHLETICS**

The mission of the Cuyamaca College Athletics Department is to provide all student athletes quality intercollegiate sports that will complement the college's instructional programs, enhance student life on campus, and foster community interest and support.

The Cuyamaca College Coyotes' Cross Country, Soccer, Volleyball, Basketball and Tennis teams compete in the Pacific Coast Conference, which consists of the following colleges: Grossmont, Imperial Valley, Mira Costa, Palomar, San Diego City, San Diego Mesa, San Diego Miramar, and Southwestern. Men's golf is hosted into the Orange Empire Conference and competes against Cypress, Fullerton, Golden West, Irvine Valley, Orange Coast, Riverside, Saddleback, Santa Ana, Palomar, and Santiago Canyon Colleges. Track and Field is hosted in the Foothills Conference.

Cuyamaca College has won conference championships in women's tennis, men's and women's soccer, men's and women's cross country, and men's and women's track and field. State championships have been awarded to men's and women's cross country and many track and field individual events. Cuyamaca coaches have had numerous coaching excellence awards in soccer, tennis, cross country and track and field.

Student athletes must be continuously and actively enrolled in 12 or more units during the sport season. 24 units must be completed for eligibility between the first and second season of competition. Athletes follow an educational plan and maintain a minimum 2.0 GPA. Authority for eligibility must be verified by the Athletics Director. Academic achievement and high level athletic performance is strongly connected for Cuyamaca sports participation. Advancing student athletes to 4-year universities is a primary goal of the Athletics Department.

## LEARNING RESOURCES CENTER (LIBRARY SERVICES) – LRC

The LRC offers both print and electronic information resources for students. Librarians assist students in using the online public access catalog, electronic periodical databases and the Internet to locate books, periodical articles and other resources. Materials not available at the Cuyamaca Library are routinely provided through interlibrary loan.

Students are actively encouraged to become trained researchers in the complex and changing world of information literacy. Learning opportunities range from one-on-one reference assistance to formal group orientations designed to meet specific course objectives. A one unit online course is available to students who would like a more comprehensive introduction to research methods (LIR 110 - Research Methods Online).

The LRC's open computer labs contain PC and Macintosh computers. Desktop publishing and other software necessary to support the instructional program are provided. This lab is available to faculty and to currently enrolled Cuyamaca and Grossmont College students for general use.

## STUDENT PICTURE I.D. CARD

A Student Picture I.D. Card is required for access to library check-out services, the Fitness Center, Tutoring Center, and may be required for some laboratory classes. After you have completed the registration process (new students must wait 24 hours), please come to the Student Picture I.D. Office for this FREE card. You must present a valid government issued identification card and your Class and Fee statement to verify payment of mandatory fees. The office is in the Student Services Center, Building Z200, in room 203 next to Counseling. Every Cuyamaca College student is allowed one Student Picture I.D. Card while attending Cuyamaca College.

## STUDENT SUCCESS PROGRAM

### MATRICULATION

Matriculation is a process that promotes and sustains the efforts of community college students to achieve their educational goals successfully through a coordinated program of instruction and support services. The College provides an admissions process, orientation, basic skills assessment, advising and counseling. See "Student and College Responsibilities/Expectations" under Academic Policies.

Within Matriculation, there are five components that help insure students' success:

1. **Admission** – A current application must be on file with the Admissions and Records Office in order to receive a registration appointment.
2. **Orientation** – An orientation session introduces the student to the College's programs, services, academic regulations, expectations and campus facilities. All new students should attend an orientation session. To receive an exemption from this component, review the "Exemption Criteria" which follow and see a counselor.
3. **Assessment** – Multiple measures are used to recommend placement into English and/or math courses. These measures include testing and other validated criteria. All new students should participate in assessment. To receive an exemption from this component, review the "Exemption Criteria" which follow and see a counselor.

**Exemption Criteria** - Students may be exempted from assessment if they meet one of the following criteria:

- Completed an AA degree or higher at another accredited college or university.
- Concurrently matriculated at another accredited college or university and has documentation of matriculated status, i.e., assessment scores.
- Enrolling in a course for educational/personal enrichment that does not require English or math as a prerequisite, corequisite or advisory (recommended preparation).

NOTE: Students should see a counselor if they meet the above criteria.

**Review of Placement Recommendation** – If a student does not agree with the recommended course placement, an appointment can be made with a counselor to discuss the procedures for challenges to prerequisites. See “Prerequisites, Corequisites, Recommended Preparations and Limitations on Enrollment – Challenge Procedure” for more details.

4. **Counseling and Advisement** – Each student should meet with a counselor to initiate a Student Educational Plan (SEP) that outlines the appropriate courses needed to reach the student's identified educational goal. The student should meet with a counselor on an on-going basis to revise and/or update the SEP, as necessary. Please contact the Counseling Center at (619) 660-4429 for an appointment.
5. **Follow-up** – The faculty have access to an Early Alert program to notify students about their academic progress. Students are advised to contact their instructor(s) to discuss specific challenges they are encountering in class. Students are also encouraged to utilize the Counseling Center, Career Center and Tutoring Center to receive assistance when needed.

## TUTORING

### GENERAL TUTORING CENTER

The General Tutoring Center provides assistance at no cost to currently enrolled Cuyamaca College students seeking help with coursework. Tutoring is available in a variety of subjects including business, child development, computer science, foreign languages, graphic design, all sciences and social science courses. Study groups are available for certain subjects.

The General Tutoring Center is located in the LRC, with all tutoring by appointment only. Appointments can be made by stopping by the Center. For more information call (619) 660-4306

### MATH STUDY CENTER

The Math Study Center is located in N104. For students enrolled in any math class, free tutoring assistance is available. For more information, call (619) 660-4396.

### READING AND WRITING CENTER

The Reading and Writing Center, located in L136, provides reading and writing help for students in the full range of disciplines taught at Cuyamaca College.

### ESL STUDENTS

For ESL students, tutoring is available in both the Reading and Writing Center (L136) and in the General Tutoring Center in the LRC.

## UNIVERSITY TRANSFER CENTER

The University Transfer Center assists students with the process of transferring to four-year colleges and universities by providing the most current information available to ensure a smooth transition. This is achieved by

providing quality programs and services that support student success through a Transfer Resource Center. The community college is the crucial link between the K-12 system and the four-year academic institutions, and the University Transfer Center is the focus for that smooth transition. It promotes coordination with student services units and instruction within the college, and attempts to strengthen ties with the external agencies that affect student transfer.

Students have access to a current catalog collection of California public universities, articulation agreements, CSU and UC admissions applications, college handbooks and a video collection of four-year universities and private colleges. In addition, the Center has a computer lab which allows students to access the various university web pages. Some of the top web locations for students are: [www.csumentor.edu](http://www.csumentor.edu); [www.universityofcalifornia.edu](http://www.universityofcalifornia.edu); and [www.assist.org](http://www.assist.org). Our website, [www.cuyamaca.edu/transfer\\_center](http://www.cuyamaca.edu/transfer_center), provides the student with comprehensive transfer information to assist in the transfer process.

The University Transfer Center hosts representatives from four-year universities to assist students in planning for transfer, provides application workshops for transfer to the UC and CSU, and holds a Transfer Achievement Celebration to honor those students who will be going on for a bachelors degree. For additional information stop by the University Transfer Center in Z200 in the Student Services One Stop Center or call (619) 660-4425.



# ACADEMIC POLICIES

## Graphic Design

Students in the Graphic Design degree program develop entry level skills in design aesthetics, typography, illustration, digital imaging, page layout, web design and professional business practices. Courses provide training with state of the art computer hardware and software used in the graphic design profession. Students develop a professional portfolio for job interviews.

### CAREER OPPORTUNITIES:

- Graphic Designer
- Illustrator
- Web Page Designer
- Technical Illustrator
- Package Designer
- Display Designer
- Cartoonist
- Desktop Publisher
- Advertising Director
- Art Director
- Marketing Director
- Multimedia Designer



Timothy Buckles,  
Graphics Instructor



## STUDENT AND COLLEGE RESPONSIBILITIES/EXPECTATIONS

### COLLEGE RESPONSIBILITIES

1.  Provide quality instructional programs.
2.  Provide a list of course objectives, instructor expectations as to class attendance, grading and assignments. Treat students with respect and courtesy.
3.  Publish a statement of required materials a student must submit.
4.  Publish steps that must be completed prior to registering for classes.
5.  Publish important information in the catalog, schedule of classes, matriculation handbook and on college forms.
6.  Publish deadlines, procedures and forms for class schedule changes, withdrawals, refunds, grade options, certificate or degree requirements and graduation.
7.  Publish policies, procedures and forms necessary for completion of educational goal.
8.  Provide services to assist in the academic and personal growth of the student.
9.  Provide activities, events, and services that may bring enjoyment and personal growth to the student.
10.  Publish fee charges.
11.  Publish a student code of conduct and administer it consistently.

### COLLEGE EXPECTATIONS OF STUDENT

Student will make a commitment to the college.

Student will attend classes and obtain written materials on instructor expectations and class objectives.

Student will be aware of required materials and submit them by the deadline.

Student will seek out information about, attend and participate in all college required activities.

Student will purchase a college catalog. Student will obtain and read information published.

Student will read published materials and obtain required forms to complete in an efficient manner and submit in a timely fashion.

Student will determine educational goal and major as early in the college experience as possible.

Student will determine what service would be of benefit and will seek the assistance of faculty/staff to provide it.

Student will select those activities and services which may help the college experience become personally rewarding.

Student will read and be aware of fee charges.

Student will be aware of and observe all college rules and regulations.

### STUDENT RESPONSIBILITIES

- Attend **all** sessions of **all** classes. Arrive **on time** to all class sessions.
- Read all materials distributed. Prepare all class assignments. Hand in all homework **by the deadline**. Treat faculty and staff with respect and courtesy.
- Submit an application; request transcripts from other colleges; take assessment test and/or obtain a waiver if applicable.
- Participate in** assessment, orientation and advisement sessions.
- Obtain and read** published materials. Request clarification of any information that is not clear.
- Read procedures. Seek clarity if needed. Accurately complete forms. **Submit information by deadline**.
- Seek assistance from a counselor in determining an **educational goal**, a **major** and in developing an **educational plan**.
- Determine help needed and seek provider of service. **Ask** professional staff to direct you.
- Select and become actively involved through participation in college events/services.
- Pay** all charges and **debts by due date**.
- Observe all college rules and regulations.

## ACADEMIC HONESTY

Academic honesty is required of all students. Plagiarism – to take and pass off as one's own work the work or ideas of another – is a form of academic dishonesty. Penalties may be assigned for any form of academic dishonesty. Questions or clarification as to how to include the ideas and statements of others or how to avoid other forms of academic dishonesty should be discussed with the instructor to avoid unintentional academic dishonesty.

## ACADEMIC HONESTY/ DISHONESTY POLICIES

Your instructors are eager to help you succeed in your studies at Cuyamaca College. But success means more than just receiving a passing grade in a course. Success means that you have mastered the course content so that you may use that knowledge in the future, either to be successful on a job or to continue with your education.

Your success depends on a combination of the skills and knowledge of your instructors and your own hard work. You will reach your future goals only if you gain new knowledge from every course you take. That knowledge becomes yours, and can be used by you only if it is gained through your own personal efforts. Receiving a grade in a course without acquiring the knowledge that goes with it diminishes your chances for future success.

While in college, you are also shaping the principles which will guide you throughout the rest of your life. Ethical behavior and integrity are a vital part of those principles. A reputation for honesty says more about you, and is more highly prized, than simply your academic skills.

For that reason, academic honesty is taken very seriously by the Cuyamaca College faculty. The following guidelines have been prepared so that you will understand what is expected of you in maintaining academic honesty.

1. Academic dishonesty is normally dealt with as an academic action by the instructor, reflected in the student's grade in the particular course rather than through college disciplinary procedures.
2. No specific departmental, divisional or institutional procedures are established for academic dishonesty other than the normal process for review and appeal of an instructor's grading procedures.
3. Other disciplinary procedures (e.g., dismissal, suspension, etc.) will be used only if the student disrupts the class or is otherwise abusive or threatening or violates any other college policy.
4. Academic dishonesty is defined as the act of obtaining or attempting to obtain credit for work by the use of any dishonest, deceptive or fraudulent means. Examples of academic dishonesty would include but not be limited to the following:
  - a. Copying either in part or in whole, from another's test or examination;
  - b. Discussion of answers or ideas relating to the answers on an examination or test when such discussion is prohibited by the instructor;
  - c. Obtaining copies of an exam without the permission of the instructor;
  - d. Using notes, "cheat sheets," or otherwise utilizing information or devices not considered appropriate under the prescribed test conditions;
  - e. Altering a grade or interfering with the grading procedures in any course;
  - f. Allowing someone other than the officially enrolled student to represent the same;
  - g. Plagiarism, which is defined as the act of taking the ideas, words or specific substantive material of another and offering them as one's own without giving credit to the source.

Options may be taken by the faculty member to the extent that the faculty member considers the cheating or plagiarism to manifest the student's lack of academic performance in the course. One or more of the following actions are available to the faculty member who suspects a student has been cheating or plagiarizing:

1. Review – no action.
2. An oral reprimand with emphasis on counseling toward prevention of further occurrences.
3. A requirement that work be repeated.
4. A reduction of the grade earned on the specific work in question, including the possibility of no credit for the work.
5. A reduction of the course grade as a result of item 4 above, including the possibility of a failing grade for the course.
6. Referral to the office of the Assistant Dean of Student Affairs for further administrative action, such as suspension or expulsion.

### COMPUTER SOFTWARE COPYRIGHTS

Computer software is protected by the Federal Copyright Act of 1976. The following guidelines apply to the use of College acquired software:

1. No copies of software may be made except in the following cases:
  - a. Normally an archive copy of software is allowed for protection against accidental loss or damage. Archive copies of software should be securely stored and not used except to be recopied if the operational copy becomes damaged.
  - b. Some software, when site licensed by the producer, may permit unlimited copies for use within the college. Such copies must be made only by the person or persons authorized to make copies by the terms of the site license. In this case, duplicates shall be clearly labeled as Cuyamaca College copies of licensed software.
  - c. Some software, in particular programming languages, allow code to be copied and incorporated within user-written software. Such use is generally permitted as long as the software is for personal use and not sold, rented or leased. If distribution or commercial use is intended for software so produced, clearance must be secured from the copyright owner for the use of the incorporated code, and with the college for use of the equipment during production.

- The intended or unintended piracy, damage, alteration or removal of any college acquired software may be treated as an act of theft or malicious destruction. Cuyamaca College may elect not to extend computer services to persons who have been identified as engaging in these acts.
- The user is responsible for complying with whatever terms or conditions are specified in the license agreement or copyright statement which accompanies individual software acquisition.

## ACADEMIC RENEWAL

When previously recorded Cuyamaca College work is substandard and not reflective of a student's present level of demonstrated ability, and when a student would be required to take additional units simply to raise the grade point average (GPA) to meet an educational goal, this policy will allow alleviation of substandard work. If a student is otherwise eligible for graduation, academic renewal may not be used to raise the GPA in order to qualify for graduation with honors. Academic renewal cannot be used to set aside semesters containing course work which has been used to meet degree, certificate or certification requirements. Two semesters may be alleviated; only complete semesters may be alleviated, i.e., not individual courses. Summer intersession, if it is to be alleviated, will be counted as a semester.

When courses are alleviated, grades in courses taken during the semester to be alleviated remain on the student's record but are not used in the computation of the GPA.

### CRITERIA

Substandard work completed at Cuyamaca College may be alleviated subject to all of the following criteria:

- The student has requested the action formally and has presented evidence that work completed in the semester(s) under consideration is substandard and not representative of present scholastic ability and level of performance.
- There is evidence that the student would find it necessary to complete additional units and enroll for one or more additional semesters in order to qualify for the completion of an educational goal.
- Since the end of the semester to be alleviated, one or more years have elapsed and the student has completed 20 units with at least a 2.5 GPA, or 30 units with at least a 2.0 GPA. Work completed at another accredited institution can be used to satisfy this requirement. Units completed with "CR" (Credit) grades will be excluded and not counted toward fulfillment of this requirement.

### PROCEDURE

- The Petitions Committee shall review all requests for academic renewal.
- The student must formally request a review of substandard work to be alleviated. The committee will determine if all criteria have been met and if one or two

semesters shall be alleviated. Determination by the committee shall be final.

- In the event of admission to Cuyamaca College as a transfer student from other colleges where course work has been alleviated, such alleviated course work will be counted toward the maximum of alleviated work allowed. (A student is allowed a total of two semesters, regardless of the number of institutions attended.) If the other institution allowed alleviation of partial semesters, the work in question shall be counted as one semester of alleviation for the purposes of this policy.
- When such action is taken, the student's permanent academic record shall be annotated so that it is readily evident to all users of the record that no work taken during the alleviated semester(s), even if satisfactory, may apply toward degree requirements. However, all work will remain legible on the record insuring a true and complete academic history.

## ACCESS TO EDUCATIONAL PROGRAMS

It is the policy of the Grossmont-Cuyamaca Community College District Governing Board that, unless specifically exempted by statute, every course, course section or class reported for state aid, wherever offered and maintained by the District, shall be fully open to enrollment and participation by any person who has been admitted to Cuyamaca College and who meets such prerequisites as may be established pursuant to Title 5 of the California Code of Regulations, Sections 55200-55202 and 58102-58108.

## ADDING COURSES

During the official add period for each class, a student may add courses by following the procedure as outlined in the class schedule. Please see the class schedule for specific dates for last day to add all classes.

Students may not enroll in more than 18 units a semester (or 8 units in summer session) without the approval of a counselor.

## ADVANCED PLACEMENT EXAMINATION PROGRAM

Cuyamaca College grants credit toward its associate degrees for successful completion of examinations of the Advanced Placement Program of the College Board. Students who present scores of three or higher will be granted 3 to 6 semester units of college credit.

High school students who intend to participate in this program should make the necessary arrangements with their high schools and should indicate at the time they take the Advanced Placement Examinations that their test scores be sent to Cuyamaca College. To obtain credit and advanced placement, the student should contact the Evaluations Office.

The following chart indicates the score necessary, the units earned, and the course equivalents for each of the examinations for which credit is offered at Cuyamaca College. If transferring to a four-year institution, check with a counselor to see how the four-year institution will award AP credit.

<b>Examination</b>	<b>Score</b>	<b>Credit Allowed Toward Degree</b>	<b>Cuyamaca Equivalents*</b>
Art History	3,4,5	6 semester units	ART 140,141
Biology	3,4,5	4 semester units	BIO 130,131
Chemistry	3,4,5	10 semester units	CHEM 141,142
Computer Science A	3,4,5	4 semester units	CS 182
Economics			
Macro	3,4,5	3 semester units	ECON 120
Micro	3,4,5	3 semester units	ECON 121
English			
Language & Composition	3,4,5	3 semester units	ENGL 120
Composition & Literature	3,4,5	6 semester units	ENGL 120,122***
French Language	3,4,5	10 semester units	FREN 120,121
History			
American	3,4,5	6 semester units	HIST 108,109**
European	3,4,5	6 semester units	HIST 105,106
Math			
Calculus AB	3,4,5	5 semester units	MATH 180
Calculus BC	3,4,5	4 semester units	MATH 280
Music List & Lit	3,4,5	3 semester units	MUS 110
Music	3,4,5	8 semester units	MUS 105, 106
Physics: C	3,4,5	5 semester units	PHYC 190
Political Science			
Govt./Politics: American	3,4,5	3 semester units	POSC 121**
Govt./Politics: Comparative	3,4,5	3 semester units	POSC 124
Spanish Language	3,4,5	10 semester units	SPAN 120,121
Statistics	3,4,5	3 semester units	MATH 160

\*Credit may not be earned at Cuyamaca College for courses which duplicate credit already allowed for examinations as listed under Cuyamaca College course equivalents.

\*\*Satisfies part of the American history, institutions and ideals and U.S. Constitution requirements. Does not satisfy California government requirement.

\*\*\*English 122 cannot be used to satisfy Critical Thinking (A3) for CSU certification.

## ATTENDANCE REQUIREMENTS

Instructors are obligated at the beginning of the semester to announce their policy regarding excessive absence. When absences exceed twice the number of hours that a class meets in one week for full semester-length classes, the instructor may institute an excessive absence drop. For short-term classes, the number of acceptable absences is proportionately shorter. Failure to attend the first class meeting may result in the student being dropped from the class.

It is the student's responsibility to officially withdraw from any classes not attended and to discuss anticipated absences with the instructor. Make-up work for absences is the responsibility of the student and must be completed to the satisfaction of the instructor.

## AUDITING COURSES

Based on GCCCD Governing Board policy, Cuyamaca College permits auditing of courses as follows:

1. Audit enrollment will not be permitted until students have completed the allowable number of repeats in practice or performance courses. Courses are determined through agreement between the department and the appropriate administrator. Priority class enrollments are given to students desiring to take the course for credit. No student will be permitted to enroll for audit purposes until Monday of the second week of instruction.

2. A nonrefundable audit fee of \$15 per unit plus any required student or instructional materials fee shall be payable at the time of enrollment as an auditor.
3. Students enrolled in classes to receive credit for 10 or more semester credit units shall not be charged a fee to audit three or fewer semester units per semester. If the student drops below the 10-unit level, the \$15 per unit audit fee will be assessed.
4. Audit enrollment will be based on "seats available" and will not be used to count toward minimum enrollment requirements. If a class closes after an auditor has been admitted, the auditor may be asked to leave to make room for the credit students. Instructor discretion is strongly recommended. Audit enrollments which allow faculty to be eligible for a large class bonus will not be counted.
5. No student auditing a course shall be permitted to change his or her enrollment in that course to receive credit for that course.
6. Permission to audit a class is done at the discretion of the instructor and with the instructor's signed permission.
7. No credit will be received for auditing a course. The College will not maintain any attendance or academic records for MIS reporting.

Check the class schedule for courses approved for audit.

## CANCELLATION OF COURSES

Cuyamaca College reserves the right to cancel any course for which there is insufficient enrollment.

## COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

Cuyamaca college awards credit for CLEP examinations in accordance with the policy listed below. Students are cautioned that CLEP policies vary among colleges in both the number of units awarded and acceptable scores for receiving credit. Students intending to transfer should check with the college counseling office or transferring institution to determine their policy.

To receive credit for CLEP scores, students must submit an official transcript to the Admissions and Records Office. Contact the College Entrance Examination Board (CEEB) or the Defense Activity for Non-Traditional Education Support (DANTES) to request a transcript. The student's academic transcript will be annotated to designate credit awarded by credit-by-examination.

### CLEP General Education

A student may earn up to a maximum of 18 units on the general examinations of CLEP. Credits received under CLEP are applicable to appropriate General Education requirements for the Associate in Arts degree & Associate in Science degree at Cuyamaca College. Note that CLEP cannot be used in G.E. Breadth and is not permissible towards requirements for the University Transfer Studies Degree. Credit will be awarded in the following manner:

**English Composition with Essay**

It is mandatory that the essay portion of the CLEP exam be satisfactorily completed or no credit will be awarded. This exam will satisfy the English and Reading competency requirements (Area A-1).

Minimum score: 500 Units granted: 3

**Humanities**

The exam will satisfy the Humanities General Education requirement (Area C).

Minimum score: 450 Units granted: maximum of 6

**Mathematics \***

This exam will satisfy the Analytical Thinking General Education requirement (Area A-2).

Minimum score: 500 Units granted: 3

**Natural Sciences**

This exam will satisfy a Natural Sciences General Education requirement (Area B). (No LAB credit will be given for any National Science CLEP courses. Three (3) units of elective credit for students electing the two course option in Natural Sciences for General Education.)

Minimum score: 450 Units granted: 3

**Social Sciences and History**

This exam will satisfy the Social Sciences General Education requirement (Area D).

Minimum score: 450 Units granted: maximum of 6

**CLEP Subject Examinations**

Additional CLEP credit may be awarded for each satisfactory score on the CLEP subject examination. Please see a counselor for specific information regarding subject examinations.

**\*NOTE:** Students may not receive subsequent credit for any of the following courses: MATH 088, 090.

## CONTINUOUS ATTENDANCE

Students are considered in "continuous attendance" for any semester in which they enroll and for the following semester. This allows a student to "stop out" for one semester and not enroll in classes while still maintaining continuing student status. Summer sessions are not included under this policy.

## COURSES TAKEN OUT OF SEQUENCE

In all cases, a student enrolled in a course must have met course prerequisites.

Satisfactory completion of courses (i.e., English, mathematics, foreign languages, etc.) implies competency in the prerequisite courses; therefore, the college does not grant credit toward graduation for courses taken out of sequence.

## CREDIT/NO CREDIT GRADING OPTION

The Credit/No Credit (CR/NC) grading option is offered so that students may explore subject areas of interest outside those of their known abilities or assumed competence without competing for grades with students who are majoring in that subject. Cuyamaca College encourages this kind of exploration.

In any course offered at Cuyamaca College, a student may elect to be graded on a "CR/NC" basis providing the course is not part of the major (this applies to the two-year AA and AS degree majors only). In all cases, a student enrolled in a course must have met course prerequisites.

A maximum of 12 credit units earned at Cuyamaca College with "CR" grades may be counted toward satisfaction of General Education and elective curriculum requirements for graduation. Grades received from other accredited institutions, as well as credits authorized for military courses and Advanced Placement examinations, may be applied as "CR," when appropriate, toward graduation.

Some courses in the curriculum are offered exclusively on a "CR/NC" basis. Credit units earned in these courses are exempt from the 12 unit restrictions. In all other non-major courses, the election to be graded on a "CR/NC" basis is at the option of the student. Students electing to be graded on a "CR/NC" basis shall establish that option in writing by the end of the fifth week of the semester. (Short-term classes will be allowed a proportionate amount of time.) Once the "CR/NC" deadline has passed, the decision is irrevocable.

A "CR" grade shall represent at least a satisfactory ("C" grade) level of performance but shall not be counted as units attempted in computing GPA.

A "NC" grade indicates unsatisfactory completion of course requirements but will not be counted as units attempted in computing GPA. "NC" grades will be taken into consideration in the determination of lack-of-progress probation and disqualification status.

Students intending to transfer to four-year colleges or universities should check the specific policies of those institutions pertaining to transferability of "CR" grades.

## DROPPING COURSES

A student desiring to drop courses or an entire program must use **College Connection**, *WebConnect* or obtain an Add/Drop Card in the Admissions and Records Office. The student must initiate this withdrawal prior to the established deadline. Drops during the adjustment period do not appear on the transcript. Drops initiated after the adjustment period will result in a transcript entry of "W," which will be taken into consideration in determining lack-of-progress probation and disqualification. Students must clear all obligations to the college prior to withdrawal.

Withdrawal from a class after the drop deadline shall be authorized in the event of extenuating circumstances. Extenuating circumstances are verified cases of accidents, illnesses, or other circumstances beyond the control of the student. The student must file a petition at the Admissions and Records Office with documentation for review by the Petitions Committee.

Military withdrawals shall be authorized when a student who is a member of an active or reserve United States military service receives orders compelling a withdrawal from courses. Military withdrawals shall not be counted in progress alert, and probation or disqualification calculations.

**It is the student's responsibility to officially drop courses they are no longer attending. If a course is not officially dropped, you may receive an "F" for the course.**

## EMERGENCY ABSENCES OF SHORT DURATION

Emergency absences may be requested through the instructor. Instructors may be requested to provide make-up assignments for all work. Emergency absences will not be granted at the end of the semester when finals would be missed or course requirements not fulfilled.

## EXAMINATIONS

### FINAL EXAMINATIONS

Students may not be excused from final examinations. Instructors should not give final examinations at other than the regularly scheduled time. The instructor shall notify the Office of Instruction in writing if an early examination is being given to a student. This notification should include the title of the course, the reason why the early examination is authorized and the name of the student. In the event that severe illness or other emergency prevents the student from taking a final examination during the regularly scheduled time, the instructor may allow the student to make up the final examination according to provisions of the incomplete grade policy.

### CREDIT BY EXAMINATION

Credit may be granted, subject to approval of the appropriate Department Chair, to any student who satisfactorily passes an examination approved and conducted by the appropriate department. Such credit requires that:

1. The student be registered at Cuyamaca College and be in good standing.
2. The course be listed in the Cuyamaca College catalog and identified in the class schedule as one for which Credit by Examination may be granted.
3. The unit value may not be greater than that listed for the course in the catalog.
4. Units earned in this manner do not count toward the 12 units required in residency.

5. Students have not enrolled in, or completed, the same course or an advanced course at any college in the area in which Credit by Examination is requested.
6. Petitions for Credit by Examination must be submitted by the end of the second week of classes for a semester or by the end of the first week of classes for a summer intersession.

### CREDIT BY EXAMINATION PROCEDURE

1. Obtain and complete a petition for Credit by Examination from the Admissions and Records Office.
2. Make sure all college transcripts are on file.
3. Obtain approval for taking an examination from the designated instructor. This approval should be obtained before the student registers for classes.
4. Take an examination on the established date.
5. Instructor forwards to the Admissions and Records Office certification that the examination was passed satisfactorily.
6. The student's academic transcript will be annotated for Credit by Examination credit.

## FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

Cuyamaca College accords to students all rights under the Family Educational Rights and Privacy Act. No one outside the institution shall have access to nor will the institution disclose any information from the students' education records without the written consent of students except to persons or organizations providing student financial aid, to accrediting agencies carrying out their accreditation function, to persons in compliance with a judicial order, and to persons in an emergency in order to protect the health or safety of students or other persons. At Cuyamaca College, only those employees acting in the students' educational interests are allowed access to student education records within the limitations of their need to know.

Cuyamaca student data is also submitted to the National Student Clearinghouse so that research may be conducted which informs studies regarding transfer rates, college performance and other college success indicators. The information shared is maintained with the strictest of confidence; individual names or data are not disclosed. If students wish to restrict their data from being shared with the National Student Clearinghouse, they may complete a form at Admissions and Records which will restrict the release of their student data.

The Act provides students with the right to inspect and review information contained in their education records, to challenge the contents of their education records, to have a hearing if the outcome of the challenge is unsatisfactory, and to submit explanatory statements for inclusion in their files if the decision of the hearing panel is unacceptable. The Dean of Admissions and Records has been designated by the institution to coordinate the inspection and review procedures for student education records.

## GRADE FORGIVENESS

Grade Forgiveness, as defined by Cuyamaca College, is the omission of courses in which “D” or “F” grades are earned when computing GPA for granting of degrees.

Under the Cuyamaca College forgiveness policy, degree candidates must meet all the requirements as stated in the college catalog with the following exception:

Any course in which a “D” or “F” grade is earned may be forgiven without repeating only if that particular course is NOT being used to meet a degree requirement, and when the grade point average prior to forgiveness is below a 2.0, and the grade point average after grade forgiveness is 2.0 or better.

The grade forgiveness policy is automatically applied at the time of graduation.

## GRADE NOTIFICATION

Final grades are available approximately two weeks after the end of each term. Students may receive grades in the following ways:

- **VIA THE INTERNET** - Grades are available by logging on to *WebConnect* at [www.cuyamaca.edu](http://www.cuyamaca.edu). Select the View/Print Grades option for the requested semester and year.
- **BY PHONE** - Grades will be available through **College Connection**. Call (619) 668-4040 and select the grade option.
- **IN PERSON** - Grades for the previous semester are available to students who present a photo I.D. at the Admissions and Records Office.
- **BY MAIL** - Students may have their grades mailed to them by submitting a written request (including their student identification number) and a stamped, self-addressed envelope to the Admissions and Records Office.

## GRADES-FINAL

In the absence of mistake, fraud, incompetency or bad faith, the determination of the student's grades by the instructor shall be final once they have been filed in the Admissions and Records Office. Questions regarding final grades should be brought to the attention of the Dean of Admissions and Records.

## GRADING SYSTEM

Grades are earned in each course and recorded each semester on the student's permanent record. A copy of the permanent record is the transcript. Grades should be interpreted as follows:

- A** Excellent
- B** Good
- C** Satisfactory
- D** Pass, less than satisfactory
- F** Failing
- W** Withdrawal (issued to students who withdraw by the drop deadline). Students who are enrolled after the drop deadline must receive a grade (A-F, CR/NC).
- CR** Credit (“C” or better) units are not calculated in GPA.
- NC** No Credit (less than a “C”) units are not calculated in GPA. (“CR” or “NC” may be assigned only if the course is indicated as Credit/No Credit or if the student has elected this option.)
- I** Incomplete work for unforeseeable, emergency and justifiable reasons, at the end of the term, may result in an “I” symbol being entered in the student's record. An incomplete grade may be given only after the student has contacted the instructor. The condition for removal of the “I,” as well as the grade to be assigned in lieu of its removal, shall be stated by the instructor on the appropriate form and filed with the Admissions and Records Office.  
The “I” may be made up no later than one semester following the end of the term in which it was assigned. The “I” symbol shall not be used in calculating units attempted nor for grade points. A student may petition for extension of the time limit for removal of the incomplete. The petition must include evidence of approval from the instructor.
- IP** In Progress. The “IP” symbol shall be used only in courses which are offered on an “open entry/open exit” basis. It indicates that work is “in progress,” but that assignment of a grade must wait its completion. The “IP” symbol shall remain on the student's permanent record in order to satisfy enrollment documentation. The appropriate grade and unit credit shall be assigned and appear on the student's permanent record for the term in which the course is completed. The “IP” shall not be used in calculating grade point averages.  
If a student enrolled in an “open-entry/open exit” course is assigned an “IP” at the end of an attendance period and does not re-enroll in that course during the subsequent attendance period, the instructor will assign a grade to be recorded on the student's permanent record for the course.
- MW** Military Withdrawal occurs when a member of the U.S. Military receives orders compelling withdrawal from courses. MW's shall not be counted in progress probation or dismissal calculations.

**RD** Report Delayed may be assigned by the Admissions and Records Office only. It is to be used when there is a delay in reporting the grade of a student. It is a temporary notation to be replaced by a permanent symbol as soon as possible. "RD" is not used in calculating GPA.

"W," "CR," "NC," "I," "IP," "MW" and "RD" grades are not used in computation of GPA, but "W," "NC" and "I" are used for purposes of lack-of-progress probation and disqualification status.

Unless otherwise noted, students must receive a grade of Credit or "C" or better in order for a course to be counted as fulfilling a prerequisite requirement.

### GRADE POINTS

Academic achievement is reported in terms of grade point average (GPA). This is derived from the following weighting system:

- A** 4 grade points per unit earned
- B** 3 grade points per unit earned
- C** 2 grade points per unit earned
- D** 1 grade point per unit earned
- F** 0 grade points per unit attempted

GPA is computed by dividing total units attempted into total grade points earned. Decisions on probation and disqualification, scholarship, eligibility for graduation and transfer are all influenced or determined by GPA; hence, students should pay constant attention to their own grade point standing.

Grades earned in non-associate degree applicable courses will not be included when calculating the degree applicable grade point average.

## GRADUATION CEREMONY

The Cuyamaca College Commencement ceremony is held each June, recognizing those students who have received their Associate Degrees and/or Certificates of Achievement the previous Summer, Fall and current Spring semester. Certificate of Proficiency recipients are not eligible to participate in Commencement. Information regarding the Commencement Ceremony is available from the Student Affairs Office. Students wishing to apply to receive a degree or certificate must file a Petition for Graduation. Degree and Certificate Petition in the Admissions and Records Office. Deadlines are printed in the class schedule each semester. Please refer to "General Degree and Certificate Information" and "Degree Requirements" under Transfer Information for complete information.

## GRADUATION WITH HONORS

Students who have earned a 3.5 or better GPA on all college work attempted graduate with honors.

Official transcripts from all colleges attended must be on file in the Admissions and Records Office. However, if no course work on a transcript from another college is used to meet any degree requirement, students may exclude that entire transcript from being used to compute their overall GPA for graduation. Students electing this option need to make this request at the time they file an Evaluation for Graduation Request form in the Admissions and Records Office. Official transcript must be on file prior to request for exclusion. This option only applies to the GPA used to determine graduation with honors from Cuyamaca College. It will not affect transfer GPA and other colleges and universities may not calculate GPA for honors status the same way.

## HONORS

Students carrying 12 or more units at Cuyamaca College in which letter grades are earned ("credit" grades not included), who maintain a 4.0 GPA during any semester, are placed on the President's List. Students who maintain a 3.5 or better GPA during any semester are placed on the Dean's List.

Students carrying less than 12 units at either Cuyamaca College or Grossmont College, but carrying 12 or more units in which letter grades are earned ("credit" grades not included) at Cuyamaca and Grossmont Colleges, who maintain a 4.0 GPA during any semester, are placed on the District President's List. Students who maintain a 3.5 or better GPA during any semester are placed on the District Dean's List.

Part-time students are eligible for the Dean's List if they (1) complete 12 units at Cuyamaca College in one academic year (July 1 through June 30) with a GPA of 3.5 or better ("credit" grades not included) and (2) were enrolled in fewer than 12 units per semester.

## LEAVES OF ABSENCE

Any continuing Cuyamaca College student who is eligible to register may maintain his or her registration priority during an absence of one semester by taking an official leave of absence. The student may apply for such a leave with the Admissions and Records Office. The deadline for applying is the end of the second week of classes. No fee will be charged. The student may take no more than two such leaves, consecutively or separately, while enrolled at Cuyamaca College.

## MATRICULATION APPEALS INFORMATION

### PARTICIPATION IN MATRICULATION SERVICES

All students are encouraged to participate in Matriculation services which include assessment, orientation, counseling and advisement; however, if a student does not wish to take part in any or all of these services, the student shall meet with a counselor to discuss Non-Participation in Matriculation Services.

### COMPLAINT OF UNLAWFUL DISCRIMINATION

If a student feels that assessment, orientation, counseling, prerequisites or any other Matriculation procedure is being applied in a discriminatory manner, a process has been established to achieve a satisfactory resolution of the problem. This process includes:

- Level 1 Meet with the Chairperson of Counseling (or designee) to discuss the situation and seek solutions to the problem within three working days. A record of the discussion and the solution is filed at this time.
- Level 2 In the event a student complaint is not resolved at Level 1, the Chairperson of Counseling (or designee) will refer the student to the Dean of Counseling/Matriculation. The Dean will discuss the complaint with the student and, if necessary, assist the student in preparing a written complaint to the Appeal Panel. An Appeal Panel composed of the Vice President of Student Development and Services, a counselor, the Gender Equity Coordinator, one student and one instructional faculty member will review the complaint and respond appropriately within 10 working days.

NOTICE: If the above procedure is followed and the student is not satisfied, and the complaint is predicated on an alleged unlawful discrimination on the basis of ethnic group identification, religion, age, gender, color, or physical or mental disability, and this complaint is not resolved to his/her satisfaction within 30 days of its filing, the student may file a formal complaint. If the student is interested in pursuing this option, please contact:

Vice Chancellor of Human Resources  
 District Office  
 Grossmont-Cuyamaca Community College District  
 8800 Grossmont College Drive  
 El Cajon, CA 92020

## MINIMUM LOAD REQUIREMENTS

The College does not specify a minimum load except when the student desires to meet certain requirements such as:

1. Certification to the Department of Health, Education and Welfare that the student is attending full-time. Requirement: 12 or more units a semester, but a student should average 30 units a year.
2. Veteran Affairs certification for Chapters 30, 31, 32, 35 and 1606.

### Fall or Spring Semester

- Full-time . . . . .12 units
- Three-quarter time . . . . .9-11½ units
- One-half time . . . . .6-8½ units
- One-quarter time . . . . .3-5½ units

### Summer Session

Calculated on an individual class basis. Contact the Veterans Specialist in the Admissions and Records Office for detailed information.

3. International students with an "F-1" visa issued by Cuyamaca College. Requirement: 12 or more units a semester.
4. Enrollment verifications for insurance benefits that a student is attending full-time. Requirement: 12 or more units a semester or 5 or more units for summer session.
5. Athletics - Eligibility to participate in Pacific Coast Conference intercollegiate athletics. Requirement: 12 or more units in courses for which NEW units of credit may be earned. Students should see Pacific Coast Conference and Cuyamaca College regulations for additional requirements.
6. Student Government - Eligibility to participate in student government as an office holder or in intercollegiate activities other than athletics. Requirement: 6 or more units during the semester of participation.

## POLICIES RELATING TO STUDENTS

<b>POLICY</b>	<b>WHERE TO FIND IT</b>
Academic Accommodations Policy	ASCC <i>Disabled Students Programs and Services</i> <i>Vice President, Instruction</i> <i>Vice President, Student Development and Services</i>
Academic Appeals	<i>Disabled Students Programs and Services</i>
Academic Policies and Procedures	<i>Admissions and Records</i> <i>College Catalog</i>
AIDS Policies and Resources for Community Colleges	<i>Health Services</i> <i>Reference Copies: Student Affairs</i>
American Disability Act (ADA)	<i>Disabled Students Programs and Services</i>
Bulletin Board Policies	<i>Student Affairs</i>
Campaign and Election Policies	ASCC Vice President <i>Student Affairs</i>
Compliance with Students with Disabilities Regulations Section 504 of the 1973 Rehabilitation Act	<i>Disabled Students Programs and Services</i>
District Drug Policy	<i>Health Services</i>
Family Educational Rights and Privacy Act of 1974	<i>Admissions and Records</i>
Matriculation Plan and Appeal Process	<i>Counseling Center</i>
Petition to Challenge Course Prerequisites, Corequisites, and Limitations on Enrollment	<i>Counseling Center</i>
Policy on Life Threatening Illnesses	<i>Health Services</i>
Policy on Sexual Harassment	<i>District Personnel Office</i> <i>Health Services</i> <i>Reference Copies: Student Affairs</i>
Student Code of Conduct	<i>Student Affairs</i> <i>Vice President, Instruction</i> <i>Vice President, Student Development and Services</i> <i>College Catalog</i>
Student Grievance and Due Process	<i>Student Affairs</i> <i>Vice President, Instruction</i> <i>Vice President, Student Development and Services</i> <i>College Catalog</i>
Title IX Prohibiting Sex Discrimination in Education	<i>Counseling Center</i>

## PREREQUISITES, COREQUISITES, RECOMMENDED PREPARATIONS, AND LIMITATIONS ON ENROLLMENT

A *prerequisite* is a condition of enrollment that a student is required to meet in order to demonstrate current readiness for enrollment in a course or educational program.

A *corequisite* is a condition of enrollment consisting of a course that a student is required to simultaneously take in order to enroll in another course.

An *advisory or recommended preparation* is a condition of enrollment that a student is advised, but not required, to meet before or in conjunction with enrollment in a course or educational program.

*Limitations on enrollment* are conditions for enrollment in Honors courses or courses which include public performance or intercollegiate competition.

All courses shall be open for enrollment to any student who has been admitted to the college, except that students may be required to meet necessary and valid prerequisites. In addition, the District may also limit enrollment in a course based on health and safety considerations, facility limitations, or legal requirements imposed by statute or regulations.

### Grounds for challenge are:

1. Student can demonstrate that the prerequisite has not been established following the District's policy or in accordance with Title 5.
2. Student can demonstrate that the course is discriminatory or applied in a discriminatory manner.
3. Student can demonstrate knowledge or skill needed to succeed in the course without the prerequisite.
4. Student can demonstrate that attainment of his/her educational goal will be unduly delayed because the prerequisite has not been made reasonably available (impacted programs).
5. Student can demonstrate that no threat is posed to self or others in a course which has a prerequisite established to protect health and safety.

Students should plan their schedules early and see a counselor for assistance.

### Challenge Procedure

Students who believe that they have sufficient grounds may challenge a prerequisite, corequisite, or limitation on enrollment. A student may obtain a Petition to Challenge Prerequisites, Corequisites, and Limitations on Enrollment as well as a copy of the challenge procedure in the Counseling Office no later than 10 working days prior to the published add deadline for the course being challenged. Students who challenge a prerequisite or corequisite after the start of the semester should speak with a counselor. Contact the Counseling Office for additional information.

## PROBATION AND DISQUALIFICATION

Cuyamaca College believes that students who can profit from higher education should be allowed admission free of probationary status. Grades earned at other schools prior to admission to Cuyamaca College shall not be considered in determining probationary status.

### PROBATION

1. *Academic Probation:* Any student whose cumulative or semester GPA falls below 2.0 in courses receiving letter grades for work attempted at Cuyamaca College shall be placed on academic probation.
2. *Lack-of-Progress Probation:* Any student who has enrolled in a total of at least 12 semester units (beginning with the Fall 1981 semester) at Cuyamaca College shall be placed on lack-of-progress probation when the student's cumulative units indicate 50 percent or more units of "W," "I" and/or "NC."
3. *Removal from Probation:*
  - a. Any student placed on academic probation shall be removed from probation when the cumulative GPA at Cuyamaca College has improved to 2.0.
  - b. Any student placed on lack-of-progress probation shall be removed from probation when the cumulative units of "W," "I" or "NC" recorded at Cuyamaca College are less than 50 percent of the total units attempted.

### DISQUALIFICATION

Any student disqualified from a college within the Grossmont-Cuyamaca Community College District may not attend any college within the District during the next consecutive semester. The student may, however, attend summer intersession.

1. *Academic Disqualification:* Any student on academic probation whose semester GPA falls below 2.0 shall be academically disqualified. Any student on academic probation whose semester GPA equals or exceeds 2.0, but whose cumulative GPA for all units attempted remains below 2.0, shall be continued on probation.
2. *Lack-of-Progress Disqualification:* Any student who is on lack-of-progress probation and whose semester work indicates 50 percent or more units of "W," "I" or "NC" will be disqualified. Any student on lack-of-progress probation whose semester work indicates fewer than 50 percent units of "W," "I" or "NC," but whose cumulative records show 50 percent or more units of "W," "I" or "NC," will be continued on lack-of-progress probation.

### REINSTATEMENT

Any student believing to be unjustifiably disqualified may file a petition with the Admissions and Records Office requesting that such disqualification be reconsidered. Students are encouraged to see a counselor for assistance with petitions. To facilitate the official adding of courses

prior to the published add deadline, a petition for reinstatement should be submitted no later than ten working days prior to the published add deadline.

Any veteran who petitions for readmission to the college following disqualification must meet with a counselor and have the counselor make a recommendation on the petition prior to being considered for readmission.

## REMEDIAL COURSE LIMIT

Students may not receive credit for more than 30 units of remedial course work. This limit shall not apply to the following students:

- Students enrolled in one or more courses of English as a Second Language.
- Students identified by a college in the District as having a learning disability.

Students may be granted a waiver to the limitation upon petition to a college in the District. Waivers will be granted only when the student shows significant and measurable progress toward the development of skills necessary for college-level courses. Such waivers will be given only for a specified period of time or for a specified number of units.

## REPETITION OF COURSES

A student is not obligated to repeat a course which he/she has failed unless it is a course required for graduation, transfer or is a prerequisite to another required course.

### SUBSTANDARD WORK

1. A student may repeat any course in which a substandard final grade ("D," "F" or "NC") was earned. If the course is offered at both colleges in the District, the student may repeat the course at either college. A course may be repeated only once under this policy.
  - a. If the student elects to repeat the course at the same college he/she received the substandard grade, the original grade will be annotated.
  - b. If the student elects to repeat the course in which the substandard grade was earned at the other college in the District, a petition will need to be filed with the appropriate college's Petition Committee for action.
2. Upon completion of a repeated course, the original grade will be annotated and removed from the cumulative totals on the academic transcript in such a manner that all work remains legible, insuring a true and complete academic history. Only the last grade will be included in determining GPA and academic standing, and only those units will be counted toward graduation. No assurance can be provided that repeated course(s) will be treated in this manner by other institutions.

### SPECIAL CIRCUMSTANCES

#### PASSED COURSE

A student may not repeat a course in which a grade of "C" or higher was earned except by petition under extenuating circumstances. If such circumstances do exist, the grade earned in the repeated course shall not be counted in calculating the student's GPA.

1. If the student attempts to repeat the course at the same college, the student will be administratively dropped. Once the student submits a petition and the request is approved, the student may be reinstated.
2. If the student attempts to repeat the course at the other college in the District, the student should file a petition to the appropriate Petitions Committee for action.

### MANDATED TRAINING

Courses that are required for mandated training are designated as indefinitely repeatable without the need for a petition.

## STUDENT CODE OF CONDUCT

### GROUNDINGS FOR DISCIPLINARY ACTION

Student conduct must conform to District and College rules and regulations. If a Student Code of Conduct violation occurs while a student is enrolled, he or she may be disciplined for one or more of the following causes that must be District related. These categories of behavior are not intended to be an exhaustive list, but are examples of causes and are good and sufficient causes for discipline, including but not limited to the removal, suspension or expulsion of a student. Other misconduct not listed may also result in discipline if good cause exists (Education Code Section 76034).

- Academic dishonesty, such as cheating or plagiarism, or knowingly furnishing false information to the District and/or the College.
- Forgery, alteration or misuse of District or College documents, records, or identification.
- Obstruction or disruption of instructional, counseling, administrative, public service or other authorized District or College functions or activities.
- Assault or battery, abuse or any threat of force or violence or hazing directed toward any person on District-owned or controlled property, or at District or College-sponsored or supervised functions, or conduct which threatens or endangers the health or safety of any such person, or stalking of any District or College student or staff member.
- Theft of or willful damage to District property or theft or willful damage to property of a member of the District or College community, such as visitors, students or employees on District property or at an authorized District or College activity.
- Unauthorized entry onto or use of District or College facilities.
- Violation of District or College rules or regulations including District or College policies concerning student organizations, use of District or College facilities, or the time, place, and manner of student expression (Education Code 76120).
- Use, possession, or distribution of alcoholic beverages, narcotics, or controlled substances on campus, except as expressly permitted by law, or presence on District property or at a District or College authorized event while under the influence thereof.
- Willful failure to comply with directions of District or College officials, including faculty and staff acting in the performance of their duties.
- Disorderly, lewd, indecent, or obscene conduct, expression, or language on District-owned or controlled property or at District or College-sponsored or supervised functions.
- Use of slander, libel or verbal abuse in any way to cause defamation or character assassination.
- Possession or use of explosives, dangerous chemicals, deadly weapons, or any item used to threaten bodily harm to any person on District property or at a District or College function without prior authorization of the Chancellor or designee.
- Misrepresentation of oneself or of an organization to be an agent of the District or College.
- Conduct that is in violation of Federal, State, or local laws or ordinances while on District premises or at District or College-sponsored or supervised activities.
- Abuse of computer facilities or use of computers for other than authorized assigned work including, but not limited to: unauthorized entry into a file to read, use, copy, or change its contents; unauthorized transfer of a file; unauthorized use of another individual's identification or password; use of District or College computing facilities to interfere with the work of another member of the District or College community; use of computers for unauthorized activities; and unauthorized use of computers to display material of a sexual nature or other material that creates a hostile environment for persons in the immediate vicinity.
- Attempting any of the causes for disciplinary action identified above.

### TYPES OF DISCIPLINARY ACTION

Disciplinary actions that may be imposed for violations of the Student Code of Conduct include the following:

- **Warning:** Written or oral notice to the student that continuation or repetition of misconduct may be causes for further disciplinary action.
- **Reprimand:** Written censure for violation of specific regulations.
- **Disciplinary Probation:** Specific period of conditional participation in campus and academic affairs that may involve exclusion from designated privileges or extracurricular activities. If a student violates any condition of probation, or is charged a second time with a violation of the Standards of Student Conduct during the probationary period, it shall be grounds for revocation of the student's probationary status and for further disciplinary action to be taken in accordance with these procedures.
- **Faculty-Initiated Suspensions:** A faculty member may remove, for good cause, any student from his or her class for up to two (2) class sessions. The student shall not return to the class during the period of the removal without concurrence of the instructor. Nothing herein will prevent the College President or designee from recommending further discipline in accordance with these procedures based on the facts that led to the

removal. As used in this rule, “good cause” includes those offenses listed in the Student Code of Conduct. The faculty member shall immediately report the suspension to the respective Division Administrator and to the College President or designee. If the student is a minor, the College President or designee shall schedule a conference with the student and the student’s parent or guardian regarding the suspension. The faculty member is not obliged to provide make up opportunities for class work missed during the two (2) class periods of suspension.

- **Suspension or Termination of Financial Aid:** In the event a student is suspended for willfully and knowingly disrupting the orderly operation of the campus, this action will result in ineligibility for State financial aid, as defined in Education Code Section 69813, for the period of suspension. (Education Code Section 69810).
- **Short-Term Suspension:** Temporary exclusion from student status, or other privileges or activities, for a specified period of time, not to exceed ten (10) days (Education Code Section 76031).
- **Immediate Interim Suspension:** The College President may order immediate suspension of a student when he or she concludes that immediate interim suspension is required to protect lives or property and to ensure the maintenance of order. In cases where an immediate interim suspension has been ordered, the time limits contained in these procedures shall not apply, and all hearing rights, including the right to a formal hearing where a long-term suspension or expulsion is recommended, will be afforded to the student within ten (10) days, unless mutually agreed upon by the student and administrator that more time is required.
- **Withdrawal of Consent to Remain on Campus:** The College President or designee may notify any person as to whom there is a reasonable belief that the person has willfully disrupted the orderly operation of the campus that consent to remain on campus has been withdrawn. If the person is on campus at the time, he or she must promptly leave or be escorted off campus by District Public Safety. If consent is withdrawn by the College President’s designee, a written report must be promptly made to the College President. The person from whom consent has been withdrawn may submit a written request for a hearing on the withdrawal within the period of the withdrawal. The request shall be granted no later than seven (7) days from the date of receipt of the request. The hearing will be conducted in accordance with provisions of this procedure, relating to interim suspensions. In no case shall consent be withdrawn for longer than fourteen (14) days from the date upon which consent was initially withdrawn. Any person as to whom consent to remain on campus has been withdrawn who knowingly reenters the campus during the period in which consent has been withdrawn, except to come for a meeting or hearing, is subject to arrest (California Penal Code 626.4).
- **Long-term Suspension:** Temporary exclusion from student status, or other privileges or activities, for the remainder of the current semester.
- **Expulsion Subject to Reconsideration:** Permanent termination of student status, subject to reconsideration

by the Board of Trustees after a specified length of time. Reconsideration may be requested in accordance with the procedure for Reconsideration.

- **Permanent Expulsion:** Permanent termination of student status. There shall be no right of reconsideration of a permanent expulsion at any time. On its own motion, the Board of Trustees may reconsider such actions at any time.
- **Restitution:** Appropriate restitution shall be sought from any student found guilty of theft, vandalism or willful destruction of District or College property.

## STUDENT GRIEVANCE AND DUE PROCESS PROCEDURES

The educational philosophy of the Grossmont-Cuyamaca Community College District set forth by Governing Board Policy 1300 states that “The Colleges recognize the worth of the individual and the fact that individual needs, interests, and capacities vary greatly.” With acceptance of this principle comes the recognition that divergent viewpoints may result and that a process by which these viewpoints can be aired and resolved must be established.

The purpose of these procedures is to provide a prompt and equitable means for resolving student grievances. In the pursuit of academic goals, the student should be free of unfair or improper action by any member of the campus community. The grievance procedure may be initiated by a student who reasonably believes he or she has been subject to unjust action or denied rights that have adversely affected his or her status, rights, or privileges as a student. It is the responsibility of the student to submit proof of alleged unfair or improper action.

Grievances pertaining to grades are subject to the California Education Code Section 76224(a) which states: “When grades are given for any course of instruction taught in a community college district, the grade given to each student shall be the grade determined by the faculty member of the course and the determination of the student’s grade by the instructor, in the absence of mistake, fraud, bad faith, or incompetency, shall be final.”

This Student Grievance and Due Process Procedure does not apply to the challenge process for prerequisites, corequisites, recommended preparations (advisories), and limitations on enrollment; an appeal of residence decision determination; or the determination of eligibility, disqualification or reinstatement of Financial Aid. These processes should be directed to the administrator in charge of the specific area of concern. Alleged violations of sexual harassment policies, actions dealing with student discipline, alleged discrimination on the basis of ethnic group identification, religion, age, gender, color, sexual orientation, physical or mental disability should be directed to the Assistant Dean of Student Affairs. This procedure does not apply to police citations (i.e., “tickets”). Complaints regarding citations must be directed to the Public Safety Office.

If it is reasonable to conclude that, if substantiated, discipline of an employee may follow from a violation, such grievance is not subject to this process. Allegations of this nature will be directed to the appropriate College administrator.

If the grievance is predicated on an alleged unlawful discrimination on the basis of ethnic group identification, religion, age, gender, color, sexual orientation, physical or mental disability, a complaint may be filed with the:

Vice Chancellor of Human Resources  
District Office  
Grossmont-Cuyamaca Community College District  
8800 Grossmont College Drive  
El Cajon, CA 92020

Information about grievance procedures and a copy of this document should be available to grievant(s) and/or the student respondent(s) upon request.

The appeal procedure for eligibility, disqualification, and reinstatement of Financial Aid may be obtained in the Financial Aid Office. Information about other procedures is listed in the schedule of classes, the College catalog, or may be obtained from the Chief Student Services Officer.

### INFORMAL RESOLUTION

All parties involved should be encouraged to seek an informal remedy. Informal meetings and discussion between persons directly involved in a grievance are essential at the outset of the dispute and should be encouraged at all stages. An equitable solution should be sought before persons directly involved in the case have assumed official or public positions that might tend to polarize the dispute and render a solution more difficult.

In an effort to resolve the matter in an informal manner, the student may, if appropriate, schedule a meeting with the person with whom the student has the grievance, schedule a meeting with the person's immediate supervisor, and/or schedule a meeting with the appropriate College administrator.

If the matter is not resolved in an informal manner, the student may, if appropriate, schedule a meeting with the Assistant Dean of Student Affairs to explore student rights and responsibilities and receive assistance with an informal resolution.

- The Assistant Dean of Student Affairs may gather information, communicate with all parties and attempt to mediate an informal resolution.
- If the student believes the issue has not been resolved satisfactorily, the student may submit a written Statement of Grievance to the Assistant Dean of Student Affairs, specifying the time, place, nature of the complaint, the specific policy or regulation alleged to have been violated if any, and remedy or correction requested.

This statement must be submitted to the Assistant Dean of Student Affairs within thirty (30) days of the incident or thirty (30) days after the student learns of the basis for the grievance, whichever is later, but not to exceed one (1) year of the occurrence.

- At the end of ten (10) days following the receipt of the written Statement of Grievance by the Assistant Dean of Student Affairs, if there is no informal resolution of the complaint, the student(s) shall have the right to request a Formal Grievance Hearing.

### FORMAL GRIEVANCE HEARING

- The student grievant(s) shall file a Formal Grievance Hearing Request Form with the Assistant Dean of Student Affairs no sooner than ten (10) days, but not more than fifteen (15) days from filing the written Statement of Grievance.
- The grievant(s) and/or the respondent(s) may request from the Assistant Dean of Student Affairs the assistance of a Student Advocate. The grievant(s) or the respondent(s) shall select an advocate from the panel established by the College President.
- Within five (5) days following receipt of the Formal Grievance Hearing Form, the Assistant Dean of Student Affairs shall meet with the grievant and all parties to outline their rights and responsibilities.

### FORMAL GRIEVANCE HEARING COMMITTEE COMPOSITION

The College President shall establish annually a standing panel from which one or more Formal Grievance Hearing Committees may be appointed. The panel shall consist of a minimum of:

- Five (5) students recommended by the Associated Student Government;
- Five (5) faculty members recommended by the Academic Senate;
- Five (5) administrators, supervisors or staff selected by the College President.

The College President shall appoint a Formal Grievance Hearing Committee from the standing panel. The College President shall ensure that these Committee members have no possible conflict of interest in hearing the grievance. The Committee shall include two (2) students, two (2) faculty members, and one (1) College administrator, supervisor or staff member selected from the panel described above.

The Formal Grievance Hearing Committee shall select a chairperson from among its members.

Once a Formal Grievance Hearing has commenced, only those Committee members present throughout the Hearing may vote on the recommendation.

No person shall serve as a member of the Formal Grievance Hearing Committee if that person has been personally involved in any matter giving rise to the grievance, has made any public statement on the matters at issue, or could otherwise not act in a neutral manner. The grievant(s) or the respondent(s) may challenge for cause any member of the Formal Grievance Hearing Committee prior to the beginning of the Hearing by addressing a challenge, in writing, to the College President who shall determine whether cause for disqualification has been shown. If the College President

believes that sufficient grounds for removal of a member of the Formal Grievance Hearing Committee have been presented, the College President shall remove the challenged member or members and replace them with another member or members from the standing panel.

Within ten (10) days following receipt of the Formal Grievance Hearing Request Form, the Formal Grievance Hearing Committee shall meet to select a chairperson and to determine if the Formal Grievance Hearing Request fulfills all of the following requirements:

- The request contains facts/documentation which, if true, would constitute a grievance;
- The grievant is a student as defined in these procedures, which include applicants and former students;
- The grievant is personally and directly affected by the alleged grievance;
- The grievant conformed with the grievance procedures and the grievance was filed in a timely manner;
- The grievance is not clearly frivolous or without foundation, or not clearly filed for purposes of harassment.

If the Formal Grievance Hearing Committee rejects the request for a Formal Grievance Hearing, the grievant and the Assistant Dean of Student Affairs shall be notified in writing, within five (5) days, by the Committee's Chairperson. The specific reason(s) for rejection and the appeal process outlined in this document shall be included in this notification.

If the grievant(s) is dissatisfied with the decision of the Formal Grievance Hearing Committee not to grant a Formal Grievance Hearing, a written appeal may be filed with the Grievance Council within five (5) days after receipt of the Formal Grievance Hearing Committee's decision.

The Grievance Council's decision on the appeal is final.

If the request for a Formal Grievance Hearing satisfies all of the requirements listed above, the Committee Chairperson shall notify the grievant and the Assistant Dean of Student Affairs, in writing, within five (5) days.

The Assistant Dean of Student Affairs shall schedule a Formal Grievance Hearing which shall commence within ten (10) days following the decision to grant a Formal Grievance Hearing. All parties to the grievance shall be given no less than five (5) days notice of the date, time and place of the Hearing.

The student may represent him or herself or may be assisted by another person except that an attorney shall not represent him or her.

### **CONDUCT OF THE HEARING**

**Opening:** The Committee Chairperson shall call the Hearing to order, introduce the participants, and announce the purpose of the Hearing.

**Burden of Proof and Producing Evidence:** Each party to the grievance may call witnesses and introduce oral and written testimony relevant to the issues of the grievance. The grievant(s) and the respondent(s) have the right to question all witnesses and to review all documents presented to the Formal Grievance Hearing Committee.

Formal rules of evidence shall not apply. Any relevant evidence shall be admitted.

The burden shall be upon the grievant to prove by a preponderance of the evidence that the facts alleged are true.

**Student Advocacy:** The grievant(s) or the respondent(s) shall have the right to be assisted by a Student Advocate or by an individual of their choice. The grievant and the respondent(s) may assist him or herself, or may be assisted by a person of the party's choice, except that neither the grievant(s) or the respondent(s) shall be entitled to representation by legal counsel.

**Exclusion of Witnesses:** The Hearing shall be closed and confidential, unless it is the request of both parties that the Hearing be open to the public. Any such request must be made in writing no less than five (5) days prior to the date of the Hearing.

In a closed Hearing, witnesses shall not be present at the Hearing when not testifying unless both parties and the Formal Grievance Hearing Committee agree to the contrary.

**Tape Recording:** The Hearing shall be tape-recorded in accordance with the following procedures:

- All oral testimony shall be tape-recorded. If a person called upon to give oral testimony refuses to consent to being recorded, they may not testify at the Hearing.
- At the beginning of every Hearing, all parties present for the Hearing shall orally identify themselves by name for the tape recording.
- The Committee chairperson shall instruct all parties present for the Hearing to identify themselves when speaking and instruct all present that only one person is to speak at a time so the tape recording will be understandable.
- Only one tape recorder shall be allowed at the Hearing. No other recording device shall be allowed.

When the presentation of evidence is concluded, the Formal Grievance Hearing Committee's deliberations shall be confidential and closed to all parties. The Formal Grievance Hearing Committee's deliberations shall not be tape-recorded. Only those Committee members present throughout the entire Hearing may vote on the decision.

The grievance file, including tapes and all documents, shall be retained in a secure location on campus for a period of four (4) years. The grievant(s) and the respondent(s) may have access, upon request, to the files and tapes through the Assistant Dean of Student Affairs. The individual making the request pursuant to Board Rule shall pay the costs of any copies requested.

The Formal Grievance Hearing Committee shall meet and consider the relevance and weight of the testimony and evidence presented. This Committee shall reach a decision only upon the record of the Hearing and shall not consider matters outside of that record. Within five (5) days following the conclusion of the Hearing, this Committee shall issue a written recommendation that includes a statement of reasons for its conclusions.

The Committee's recommendation shall be forwarded to the Grievance Council through the Chief Student Services Officer with copies to the grievant(s) and the student respondent(s).

### **GRIEVANCE COUNCIL**

The Grievance Council shall be composed of the Chief Student Services Officer, the Vice President of Instruction, and the Chief Business Officer of the College or designees.

Upon receipt of the Formal Grievance Hearing Committee's recommendation, the Chief Student Services Officer shall call a meeting of the Grievance Council.

The Grievance Council shall consider the Committee's recommendation, and any materials pertinent to the grievance, but shall not consider matters outside of the record. The Grievance Council shall render a written decision to the grievant(s) and the respondent(s) within five (5) days of receipt of the Formal Grievance Hearing Committee's recommendation.

### **APEAL PROCESS**

If either party is dissatisfied with a Grievance Council's decision, a written appeal may be filed with the College President within five (5) days of receipt of the Grievance Council's decision. If the College President is a party to the grievance, the appeal will be submitted directly to the District Chancellor.

Within five (5) days, the Grievance Council, or the College President (or District Chancellor if the President is a party to the grievance) shall send copies of the appeal to each party.

The College President (or the District Chancellor if the President is a party to the grievance), after reviewing the record of the Formal Grievance Hearing Committee, shall make a decision on the appeal and notify the parties in writing within five (5) days.

The College President's (or the District Chancellor's if the College President is a party to the grievance) decision shall be in writing and shall include a statement of reasons for the decision. The College President's (or District Chancellor's) decision shall be final.

### **STUDENT ADVOCATE - PANEL COMPOSITION AND ROLE**

The College President shall annually establish a standing panel from which the student who files the grievance or the respondent select Student Advocates. The panel shall consist of a minimum of:

- Two (2) students recommended by the Associated Student Government;

- Two (2) faculty members recommended by the Academic Senate;
- Two (2) administrators, supervisors or staff selected by the College President.

The Assistant Dean of Student Affairs will train the Student Advocate(s) regarding process, regulations and procedures. This training shall take place prior to the Student Advocate's assumption of the duties of this position.

The Student Advocate(s) shall assist the grievant(s) or the respondent(s) in understanding the grievance procedures, filling the appropriate forms, meeting all the timelines of these procedures, and communicating with College officials.

### **TIME LIMITS**

Any times specified in these procedures may be shortened or lengthened if there is mutual concurrence by all parties.

## **STUDENT RIGHT-TO-KNOW RATES**

**Completion Rate: 31.6%**

**Transfer Rate: 29.4%**

From 2001 COHORT Data

In compliance with the Student-Right-to-Know and Campus Security Act of 1990 (Public Law 101-542), it is the policy of the Grossmont-Cuyamaca Community College District and Cuyamaca College to make available its completion and transfer rates to all current and prospective students. Beginning in Fall 2001, a cohort of all certificate-, degree-, and transfer-seeking first-time, full-time students were tracked over a three year period. Their completion and transfer rates are listed below. These rates do not represent the success rates of the entire student population at Cuyamaca College, nor do they account for student outcomes occurring after this three-year tracking period.

Based upon the cohort defined above, 31.6% attained a certificate or degree or became 'transfer prepared' during a three year period, from Fall 2001 to Spring 2004. Students who are 'transfer-prepared' have completed 56 transferable units with a GPA of 2.0 or better.

Based on the cohort defined above, 29.4% transferred to another postsecondary institution, (UC, CSU, or another California Community College) prior to attaining a degree, certificate, or becoming 'transfer-prepared' during a five semester period, from Spring 2002 to Spring 2004.

## **UNIT VALUE AND STUDENT LOAD**

A conventional college unit of credit represents three hours of the student's time each week for one semester: one hour in scheduled classroom lecture or discussion and two hours in outside preparation. For laboratory, the college unit represents three hours of work in the laboratory or in comparable experience under classroom supervision. Unit value may differ in certain courses where field experience is involved.

The usual unit load for a college student per semester is 15-16 semester units. No student will be allowed to register in more than 18 semester units a semester (or eight units in summer intersession) without the approval of a counselor.

## WORK EXPERIENCE REQUIREMENTS

The unit value for work experience or field experience is one semester unit for each five hours of paid work experience per week or four hours of unpaid work experience per week completed during the course. Units will be awarded based upon a 15-week semester. The maximum occupational work experience units allowable in one semester are four in the parallel plan and eight in the alternate plan. In order to participate in Cooperative Work Experience Education, students shall be enrolled in the parallel or alternate plan as specified in Title 5, Section 55254.

### PARALLEL PLAN

1. During regular semesters, students must enroll in a minimum of seven units including Cooperative Work Experience Education. Enrollment in an accredited secondary through four-year institution or equivalent course work may meet this requirement.
2. During summer intersession, students must enroll in one other class in addition to Cooperative Work Experience Education.

### ALTERNATE PLAN

During regular semesters, concurrent enrollment will be limited to one other class.

Students must complete a minimum of three units in the program area at Cuyamaca College before becoming eligible to enroll in work experience. Check with the Program Coordinator for each discipline for specific requirements.

Specific work experience agreements between the employer-supervisor, the student and the instructor are required by the Grossmont-Cuyamaca Community College District Plan for Cooperative Work Experience Education. All requirements specified in the Plan must be met, including the submittal of records validating attendance and satisfactory completion of course objectives.

## 198 COURSES—SUPERVISED TUTORING

Supervised tutoring courses use a variety of educational tools to assist students with various learning needs. These courses can be used to assist students to strengthen prerequisite skills prior to enrolling in a specific course or to receive supplemental assistance while enrolled in another course. Supervised tutoring courses may be repeated with different content in various departments. There is no fee charged and no credit given for supervised tutoring.

## 199 COURSES—SPECIAL STUDY

The special study or project (199) is for the purpose of allowing students to increase their knowledge of a subject matter not included in regular course offerings.

Special studies shall be available to those students who have accumulated the skills and breadth of academic experience necessary to utilize this special learning method. Special study credit shall be limited to nine semester units at Cuyamaca College. The unit value for a special study or project will be determined on the basis of one semester unit for each 48 hours of work.

A typewritten one-page paper describing the goals and methods of the special study or project is to be written by the student and attached to the contract. This paper will be used as a criterion for acceptance or rejection of the proposal. This paper will also be used by the instructor to evaluate the extent to which the stated goals of the special study have been achieved. Grades will be assigned by the instructor based on the level of this achievement. The Cuyamaca College grading policy applies to 199's.

Contracts for special studies or projects are available in the Admissions and Records Office. The deadline for enrolling in a special study or project will be the end of the second week for full-term classes and the end of the first week for eight week and summer intersession classes.

## 298 COURSES—SELECTED TOPICS

Courses of this type are new and experimental and may be found in the various disciplines of the college. They are not regular catalog offerings and may be offered in a seminar, lecture and/or laboratory format. Course content and unit credit will be determined by the discipline offering the course. A description of the current offerings may be found in the class schedule. **Offered as Credit/No Credit only. Non-associate degree applicable.**

## 299 COURSES—SELECTED TOPICS

Courses of this type are new and experimental and may be found in the various disciplines of the college. They are not regular catalog offerings and may qualify for general education credit on a course by course basis. May be offered in a seminar, lecture and/or laboratory format. Course content and unit credit will be determined by the discipline offering the course. A description of the current offerings may be found in the class schedule. These courses are associate degree applicable.

# TRANSFER INFORMATION & DEGREE REQUIREMENTS



SAN DIEGO STATE  
UNIVERSITY



## University Transfer Studies Degree

Since the University Transfer Studies Degree was developed, there has been a significant increase in the number of Cuyamaca College students transferring to California State University and University of California colleges.

The degree helps students by providing a road map to the lower division transfer curriculum required for transfer to the CSU and UC.



Dora graduated from Cuyamaca College in June 2005 with an Associate of Arts degree in University Transfer Studies. "I was admitted to San Diego State University in Fall 2005 and am now majoring in Criminal Justice, with a minor in Sociology. When I was at Cuyamaca College I was on the Cuyamaca Coyote's Cross Country and Track team. Now I am an athlete at SDSU and am on the Aztec Cross Country team. I'm proud to be a Coyote and proud to be an Aztec!" Dora Sanders, Cuyamaca College class of 2005.



G r o w i n g F o r Y o u r F u t u r e

## TRANSFER INFORMATION

The following section of the catalog is designed to assist students who plan to further their education in a four-year institution. Although every effort has been made to assure the accuracy of the following transfer information at the time of catalog publication, changes may occur. Students are encouraged to make an early selection of the four-year institution and to check its catalog for more precise information. Counselors are available to assist students with program selection and planning. It is recommended that students utilize ASSIST ([www.assist.org](http://www.assist.org)) to access course equivalencies with many UC and CSU campuses. ASSIST is the recognized source of statewide articulation data.

Students who plan to transfer to a four-year institution may meet general education transfer requirements through the University Transfer Studies major. For requirements, see "University Transfer Studies" under Associate Degree Programs and Certificates.

## INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC)

The Intersegmental General Education Transfer Curriculum (IGETC) is a general education package which community college transfer students can take to fulfill lower division general education requirements for either the CSU or UC system.

Completion of the IGETC is not a requirement for transfer to a CSU or UC campus, nor is it the only way to fulfill lower division general education requirements. Students should see a counselor before deciding on an alternative that best meets their own needs.

## IGETC TRANSFER CURRICULUM 2006-2007

**Attention Students: IGETC choices for transfer may differ between Cuyamaca and Grossmont. If you plan to attend both colleges, it is strongly recommended that you visit the Counseling Centers or visit the individual college websites at [www.gcccd.edu](http://www.gcccd.edu) for specific information.**

**Up-to-date at time of catalog printing. Please see a counselor for changes.**

**There is no catalog year or rule of continuing attendance for IGETC certification. A course is certifiable if, and only if, it was on the IGETC list at the time the course was taken. Please check with a counselor if you have any questions.**

**All courses must be completed with a grade of "C" or better or "CR."**

### AREA 1 – ENGLISH COMMUNICATION

CSU: 3 courses required, one from each group  
UC: 2 courses required, one from groups A and B

- A. **English Composition:** ENGL 120
- B. **Critical Thinking:** ENGL 124
- C. **Oral Communication:** COMM 122

### AREA 2 – MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING

(1 course, 3 semester units)

- BIO 215\*
- MATH 120\*, 125\*, 126\*, 160, 175, 178\*, 180\*, 245, 280, 281, 284, 285
- PSY 215\*

### AREA 3 – FINE ARTS AND HUMANITIES

(At least 3 courses, 9 semester units)

At least one course from Fine Arts and one from Humanities.

#### A. Fine Arts:

- ART 100, 140, 141, 144, 145
- MUS 110, 111, 115, 116
- THTR 110

#### B. Humanities:

- ARAM 220
- ARBC 121, 220, 221
- ASL 121, 220, 221
- ENGL 122, 201, 202, 207, 214, 221, 222, 231, 232, 270, 271, 275, 276, 277
- FREN 121, 220, 221
- HIST 100\*, 101\*, 105, 106, 210
- HUM 110, 120, 140, 155
- PHIL 110, 115, 117, 140, 160
- RELG 100, 120, 130, 140, 150, 200
- SPAN 121, 141, 145, 220, 221

### AREA 4 – SOCIAL AND BEHAVIORAL SCIENCES

(At least 3 courses, 9 semester units)

Courses from at least two disciplines.

- A. ANTH 120
- B. ECON 110\*, 120, 121
- C. HIST 180\*, 181\*
- D. HIST 122\*, 123\*
- E. GEOG 106, 130
- F. HIST 108, 109, 114, 115, 118\*, 119\*, 124, 130\*, 131\*, 150\*, 151\*, 275, 276, 277
- G. CD 125
- H. POSC 120, 121, 124, 130
- I. PSY 120, 125, 134, 138, 140, 165, 170, 220
- J. SOC 120, 125, 130

### AREA 5 – BIOLOGICAL AND PHYSICAL SCIENCES

(At least 2 courses required, 7-9 semester units)

One Biological Science course and one Physical Science course; at least one must include a laboratory (laboratory courses are underlined).

#### A. Physical Sciences:

- ASTR 110, 112
- CHEM 115, 116, 120, 141, 142, 231
- GEOG 120, 121
- GEOL 104, 110
- OCEA 112
- PHYC 110\*, 120\*, 121, 130\*, 131\*, 190\*, 200\*, 210\*
- PSC 110, 111

#### B. Biological Sciences:

- ANTH 130
- BIO 112, 128, 130, 131, 140, 141, 210, 220\*, 221

**AREA 6 – LANGUAGE OTHER THAN ENGLISH**

UC: 1 course, 3 semester units, any of the following courses.

Students shall demonstrate proficiency in a language other than English equal to two years of high school study. Those students who have satisfied the CSU or UC freshman entrance requirement in a language other than English will have fulfilled this requirement.

ARAM 121  
ARBC 120  
ASL 120  
FREN 120  
SPAN 120

**AMERICAN INSTITUTIONS REQUIREMENT: CSU GRADUATION REQUIREMENT IN U.S. HISTORY, CONSTITUTION AND AMERICAN IDEALS**

(2 courses, 6 semester units)

(Not part of IGETC; may be completed prior to transfer)

Courses used to meet this requirement may not be used to satisfy requirements for Area 4 Social Sciences in IGETC. UC students meet the American Institutions requirement with a one-year course in U.S. history and government in high school with a grade of "C" or better. Students who have not met this requirement should discuss with a counselor ways to meet this deficiency. Check with a counselor for approved combinations of courses or go to [www.assist.org](http://www.assist.org).

\*Indicates that transfer credit may be limited by UC or CSU or both. Please consult with a counselor.

**CALIFORNIA ARTICULATION NUMBER SYSTEM (CAN)**

The California Articulation Number (CAN) System identifies many transferable, lower division, preparation courses commonly taught on California college and university campuses.

The system assures students that CAN courses on one participating campus will be accepted "in lieu of" the comparable CAN courses on another participating campus. For example: CAN ECON 2 on one campus will be accepted for CAN ECON 2 on every other participating campus. Each campus retains its own numbering system but adds the CAN designation parenthetically in its publications.

The CAN System changes due to the ongoing changes in Articulation Agreements. It is very important to check with the Counseling Office to verify the status of all CAN numbered courses.

The following is an approved list of CAN numbers for the current catalog:

Cuyamaca College	California Articulation Number
ANTH 120	CAN ANTH 4
ANTH 130	CAN ANTH 2
ART 120	CAN ART 14
ART 121	CAN ART 10
ART 124	CAN ART 8
ART 129	CAN ART 16
ART 140	CAN ART 2
ART 140+141	CAN ART SEQ A
ART 141	CAN ART 4
ART 230	CAN ART 24
BIO 130+131	CAN BIOL 2
BUS 120+121	CAN BUS SEQ A
BUS 120	CAN BUS 2
BUS 121	CAN BUS 4
BUS 125	CAN BUS 12
CD 125	CAN FCS 14
CHEM 115	CAN CHEM 6
CHEM 141	CAN CHEM 2
CHEM 141+142	CAN CHEM SEQ A
CHEM 142	CAN CHEM 4
CIS 110	CAN CSCI 2
COMM 122	CAN SPCH 4
COMM 145	CAN SPCH 6
CS 181	CAN CSCI 18
ECON 120	CAN ECON 2
ECON 121	CAN ECON 4
ENGL 120	CAN ENGL 2
ENGL 120+122	CAN ENGL SEQ A
ENGL 122	CAN ENGL 4
ENGL 126	CAN ENGL 6
ENGL 221	CAN ENGL 8
ENGL 221+222	CAN ENGL SEQ B
ENGL 222	CAN ENGL 10
ENGL 231	CAN ENGL 14
ENGL 231+232	CAN ENGL SEQ C
ENGL 232	CAN ENGL 16
ENGR 125	CAN ENGR 2
ENGR 200	CAN ENGR 8
ENGR 210	CAN ENGR 12
ENGR 218	CAN ENGR 10
ENGR 260	CAN ENGR 4
FREN 120	CAN FREN 2
FREN 120+121	CAN FREN SEQ A
FREN 121	CAN FREN 4
FREN 220	CAN FREN 8
FREN 220+221	CAN FREN SEQ B
FREN 221	CAN FREN 10
GEOG 120	CAN GEOG 2
GEOG 130	CAN GEOG 4
HIST 100	CAN HIST 14
HIST 101	CAN HIST 16
HIST 105	CAN HIST 2
HIST 105+106	CAN HIST SEQ A
HIST 106	CAN HIST 4
HIST 108	CAN HIST 8
HIST 108+109	CAN HIST SEQ B
HIST 109	CAN HIST 10
MATH 120	CAN MATH 2
MATH 160	CAN STAT 2
MATH 170	CAN MATH 8
MATH 175	CAN MATH 10
MATH 178	CAN MATH 30
MATH 180	CAN MATH 18
MATH 180+280	CAN MATH SEQ B
MATH 180+280+281	CAN MATH SEQ C
MATH 280	CAN MATH 20
MATH 281	CAN MATH 22
MATH 285	CAN MATH 24
MATH 284	CAN MATH 26
OH 121	CAN AG 10
OH 140	CAN AG 14
PHIL 110	CAN PHIL 2
PHIL 115	CAN PHIL 8
PHIL 117	CAN PHIL 10
PHIL 130	CAN PHIL 6
PHIL 140	CAN PHIL 4
PHYC 120 or 130	CAN PHYS 2
PHYC 120+121	CAN PHYS SEQ A
PHYC 121 or 131	CAN PHYS 4
PHYC 190	CAN PHYS 8
PHYC 190+200+210	CAN PHYS SEQ B
PHYC 200	CAN PHYS 12
PHYC 210	CAN PHYS 14
POSC 121	CAN GOVT 2
PSY 120	CAN PSY 2
PSY 140	CAN PSY 10
PSY 215	CAN PSY 6
SOC 120	CAN SOC 2
SOC 130	CAN SOC 4
SPAN 120	CAN SPAN 2
SPAN 120+121	CAN SPAN SEQ A
SPAN 121	CAN SPAN 4
SPAN 220	CAN SPAN 8
SPAN 220+221	CAN SPAN SEQ B
SPAN 221	CAN SPAN 10
THTR 110	CAN DRAMA 18

## UNIVERSITY OF CALIFORNIA

The University is an integral part of the public education system of California. Its campuses usually accept at full unit value transfer courses completed with satisfactory grades in the public community colleges of the state. Students intending to continue their studies at the University will find it advantageous to complete their lower division requirements at Cuyamaca College. A maximum of 70 semester units, acceptable toward an advanced degree, is honored by the University campuses. However, students should become familiar with specific requirements of the particular campus to which transfer is planned by examining the University catalogs and separate bulletins of the various schools and colleges of the University. Counselors should be consulted in planning transfer programs.

Any applicant who was ineligible for admission to the University in freshman standing because of low scholarship or a combination of low scholarship and incomplete subject preparation (omission, or grades of "D" or lower) may be admitted when the following conditions are met: he/she has established a minimum of 60 acceptable semester units passed with a GPA of 2.4 or better, and has satisfied by appropriate courses subject requirements for admission in freshman standing.

The campuses of the University of California are located in:

Berkeley	Riverside
Davis	San Diego
Irvine	San Francisco (Medical Center)
Los Angeles	Santa Barbara
Merced	Santa Cruz

Articulation agreements have been completed with most campuses of the University of California (see [www.assist.org](http://www.assist.org)). An Intersegmental General Education Transfer Curriculum pattern acceptable at all University of California campuses is available. Specific courses required for major preparation should be discussed with a counselor.

To apply for admission to the University as an undergraduate, please see Cuyamaca's Transfer Center staff. Submit your completed application and the related materials to the same office on or soon after the appropriate date.

## UCSD TRANSFER ADMISSION GUARANTEE (TAG)

Students may be guaranteed admission to one of the colleges at UCSD if they meet the course requirements in a signed transfer admission guarantee (TAG). Some majors at UCSD are impacted. Guaranteed admission to UCSD does not ensure admission to impacted majors upon transfer, but UCSD will accept such student as pre-majors and will assign them the same status as students who have completed their lower-division preparation at UCSD. Students interested in this program are advised to see a counselor prior to developing their first semester schedule, although the actual contract and academic plan will not be developed until the student has completed at least 20 semester units of applicable course work with a minimum GPA of 2.8.

Courses taken under this contract are guaranteed to apply toward the completion of college general education requirements at UCSD. Requirements are updated in the fall of each year and are therefore subject to change. Certain restrictions apply; see the official TAG Contract in the Counseling Center or University Transfer Center.

The student must submit an official UC Admission Application for admission within the published deadlines for the quarter applicable on the TAG contract (see UC Admission Application for filing dates). The student must comply with all UC requirements and deadlines.

Depending on the choice of college at UCSD, additional course work may be required. In some instances these courses may have to be taken after admission to UCSD. Students are strongly encouraged to work closely with a counselor if they have an interest in this program.

### UCSD TAG G.E. Requirements:

Select a one-year sequence (two semesters) from one department in each of the following areas:

- A. Writing:** ENGL 120 and 124
- B. Humanities:** Complete a two-course sequence from one subject:
  - 1) ART 140 and 141
  - 2) ENGL 221 and 222, or 231 and 232, or 270 and 271
  - 3) HIST 100 and 101, or 105 and 106
  - 4) HIST 114 and 115
  - 5) HUM 110 and 120
  - 6) MUS 110, 111, 115, 116, 118 (any two)
  - 7) PHIL 110, 115, 117 (any two)

- C. Foreign Language:** Complete two semesters in the same language:
- 1) ASL 120, 121, 220
  - 2) ARBC 120, 121, 220, 221
  - 3) ARAM 120, 121, 220
  - 4) FREN 120, 121, 220, 221
  - 5) SPAN 120, or 120A and 120B, or 121, 220, 221
- If you have had nine years or more of instruction in a non-English speaking institution, or from a country where English is not the primary language of instruction, there will be no lower-division credit given at UCSD in that language. The TAG language requirement will be waived upon receipt of an **OFFICIAL TRANSCRIPT** (sent directly from your home institution to UCSD). If you are unable to obtain a transcript from your country, you must complete the Foreign Language requirement.
- D. Social Science:** Complete a two-course sequence from one subject:
- 1) ANTH 120 and 130
  - 2) ECON 120 and 121
  - 3) HIST 108 and 109, 118 and 119, or 130 and 131, or 150 and 151, or 180 and 181
  - 4) POSC 121, 124, 130 (any two)
  - 5) PSY 120 and 138, or 120 and 140, or 120 and 165, or 120 and 170, or 120 and 220
  - 6) SOC 120 and 130
- E. Calculus or Natural Science:** Complete a two-course sequence from one subject:
- 1) BIO 130 and 140, or 130 and 141, or 130 and 210, or 130 and 220
  - 2) CHEM 141 and 142
  - 3) MATH 180, 280, 281, 284, 285 (any two)
  - 4) PHYC 120 and 121, or 130 and 131, or 190, 200, 210 (any two)

Please see a counselor for additional lower-division G.E. requirements for the various UCSD colleges that may be completed prior to transfer. Preparation for the major may be accessed by going to [www.assist.org](http://www.assist.org).

## COURSES ACCEPTED FOR TRANSFER TO THE UNIVERSITY OF CALIFORNIA

The most current list of UC transferable courses is available in the Counseling Office. Also, please check the course descriptions for each course for UC transferability. There are limitations on 199 and 299 courses; please check the UC transferable list on the ASSIST web site ([www.assist.org](http://www.assist.org)).

## UNIVERSITY OF CALIFORNIA CREDIT LIMITATION FOR 2005-2006

**Up-to-date at time of catalog printing. Please see a counselor for changes that take effect in 2006-2007.**

- Biology** No credit for BIO 128, 130 & 131 if taken after BIO 210, 220, 221.  
BIO 215 combined with MATH 160 and PSY 215: maximum credit, one course.  
BIO 128, 130, and 131 combined: maximum credit, four units.
- CADD Technology** CADD 115, 120ABCD, 125 and ENGR 119 combined: maximum credit, one course.
- Chemistry** No credit for CHEM 115, 116 and 120 if taken after CHEM 141.  
CHEM 115, 116 and 120 combined: maximum credit, one course.
- Economics** No credit for ECON 110 if taken after ECON 120 or 121.
- Engineering** ENGR 119, CADD 115, 120ABCD, 125 combined: maximum credit, one course.
- ESL** 103 and 106 combined: maximum credit, eight units.
- Exercise Science** ES 200 and 255 combined: maximum credit, three units.  
Maximum of four units of credit for Physical Activity courses.
- Health Education** HED 120 and 122 combined: maximum credit, one course.
- History** HIST 118, 130 and 180 combined: maximum credit, one course.  
HIST 119, 131 and 181 combined: maximum credit, one course.
- Math** Credit only for MATH 120 (3 units) or 125 and 126 combined (6 units).  
MATH 160, BIO 215 and PSY 215 combined: maximum credit, one course.  
MATH 175 and 176 combined: maximum credit, four units.  
MATH 178 and 180 combined: maximum credit, one course.
- Physical Science** No credit for PSC 110 if taken after a college course in Astronomy, Chemistry, Earth Science or Physics.
- Physics** No credit for PHYC 110 if taken after PHYC 120 or 130 or 190.  
PHYC 120 and 121 combined with PHYC 130/131 or PHYC 190, 200, 210: maximum credit, one series.  
Deduct credit for duplication of topics
- Psychology** PSY 215 combined with BIO 215 and MATH 160: maximum credit, one course.
- Spanish** SPAN 120 and 120A, 120B combined corresponds to two years of high school study.  
SPAN 120A and 120B combined with SPAN 120: maximum credit, five units.  
SPAN 120A and 120B must both be taken in order for transfer credit to be granted.

## THE CALIFORNIA STATE UNIVERSITY

As with the University of California, the California system of state universities is a member of the higher education family. Its many campuses provide upper division educational programs for graduates or transfers from over 100 California public community colleges.

Cuyamaca College students wishing to transfer to a California State University may choose from the following campuses:

Bakersfield	Northridge
Channel Islands	Pomona
Chico	Sacramento
Dominguez Hills	San Bernardino
East Bay	San Diego
Fresno	San Francisco
Fullerton	San Jose
Humboldt	San Luis Obispo
Long Beach	San Marcos
Los Angeles	Sonoma
Maritime	Stanislaus
Monterey Bay	

## UPPER-DIVISION TRANSFER ADMISSION REQUIREMENTS

A student is eligible for admission to the California State University with 60 transferable semester units (84 quarter units) if the student:

- Has a college grade point average of 2.00 or better (2.40 for non-California residents in all transferable college units attempted).
- Is in good standing at the last college or university attended.
- Has 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. The 30 units must include all of the general education requirements in communication in the English language (English composition, oral communication, and critical thinking) and at least one course of at least 3 semester units (4 quarter units) required in college level mathematics.

IMPACTED CAMPUSES MAY HAVE STRICTER REQUIREMENTS; SEE A COUNSELOR.

All California State University campuses are on a "Common Admissions Program." Applications are available online at [www.csumentor.edu](http://www.csumentor.edu) and at the Cuyamaca College Transfer Center.

## GENERAL EDUCATION BREADTH REQUIREMENTS FOR THE CALIFORNIA STATE UNIVERSITY 2005–2006

Attention Students: CSU GE Breadth choices for transfer may differ between Cuyamaca and Grossmont. If you plan to attend both colleges, it is strongly recommended that you visit the Counseling Centers or visit the individual college websites at [www.gcccd.edu](http://www.gcccd.edu) for specific information.

**Up-to-date at time of catalog printing. Please see a counselor for any additional changes.**

**There is no catalog year or rule of continuing attendance for General Education Breadth Requirements certification. A course is certifiable if, and only if, it was on the General Education Breadth Requirements list at the time the course was taken. Please check with a counselor if you have any questions.**

The California State University system has established a requirement of 48 semester units in general education as part of a baccalaureate degree. At least nine of the 48 semester units must be upper division courses. A student attending a community college may complete 39 of the 48 semester units prior to transfer.

The 48 semester units are distributed as follows:

1. A minimum of nine (9) semester units in communication in the English language to include both oral communication and written communication, and in critical thinking, to include consideration of common fallacies in reasoning.
2. A minimum of twelve (12) semester units to include inquiry into the physical universe and its life forms, with some immediate participation in laboratory activity, and into mathematical concepts and quantitative reasoning and their applications.
3. A minimum of twelve (12) semester units among the arts, literature, philosophy and foreign languages.
4. A minimum of twelve (12) semester units dealing with human social, political and economic institutions and behavior and their historical background.
5. A minimum of three (3) semester units in study designed to equip human beings for lifelong understanding and development of themselves as integrated physiological and psychological entities.

Cuyamaca College students will be certified as completing up to 39 lower division semester units of general education at Cuyamaca College for California State University campuses upon completion of the requirements for Areas A through E listed below (**courses which are listed in more than one category may be used to certify only one requirement**).

NOTE: General Education course choices for transfer and the Associate degree may differ between Cuyamaca College and Grossmont College. Each college strongly recommends that students visit the Counseling Centers for specific information if they plan to attend both campuses.

### AREA A – COMMUNICATION IN THE ENGLISH LANGUAGE AND CRITICAL THINKING

This requirement is fulfilled by taking a minimum of 3 courses, at least one from each category (minimum 9 semester units).

- 1. Oral Communication:**  
COMM 120, 122
- 2. Written Communication:**  
ENGL 120
- 3. Critical Thinking:**  
COMM 145  
ENGL 122, 124  
PHIL 125, 130

### AREA B – PHYSICAL UNIVERSE AND ITS LIFE FORMS

This requirement is fulfilled by taking a minimum of 3 semester units in each category (minimum 9 semester units). One lab course must be included (laboratory courses are underlined).

- 1. Physical Sciences:**  
ASTR 110, 112  
CHEM 115, 116, 120, 141, 142, 231  
ET 110  
GEOG 120, 121  
GEOL 104, 110  
OCEA 112  
PHYC 110, 120, 121, 130, 131, 190, 200, 210  
PSC 110, 111
- 2. Life Sciences:**  
ANTH 130  
BIO 112, 115, 122, 128, 130, 131, 140, 141, 210, 220, 221  
OCEA 112
- 3. Mathematics/Quantitative Reasoning:**  
BIO 215, PSY 215  
MATH 120, 125, 126, 160, 170, 175, 176, 178, 180, 245, 280, 281, 284, 285

### AREA C – ARTS, LITERATURE, PHILOSOPHY AND FOREIGN LANGUAGES

This requirement is fulfilled by taking a minimum of 9 semester units, with at least 1 course in each category.

- 1. Arts:**  
ART 100, 120, 124, 129, 140, 141, 144, 145  
HUM 110, 120, 140  
MUS 110, 111, 115, 116  
RELG 140  
THTR 110
- 2. Humanities:**  
ARAM 120, 121, 220  
ARBC 120, 121, 220, 221, 250, 251  
ASL 120, 121, 220  
COMM 124  
ENGL 122, 201, 202, 207, 214, 217, 221, 222, 231, 232, 270, 271, 275, 276, 277  
FREN 120, 121, 220, 221, 250, 251  
HIST 100, 101, 105, 106, 210  
HUM 110, 120, 140, 155  
PHIL 110, 115, 117, 140, 160  
RELG 100, 120, 130, 140, 150, 200  
SPAN 120, 120A & 120B†, 121, 141, 145, 220, 221, 250, 251

### AREA D – SOCIAL, POLITICAL AND ECONOMIC INSTITUTIONS AND BEHAVIOR; HISTORICAL BACKGROUND

This requirement is fulfilled by taking a minimum of 9 semester units, with courses taken in at least 2 categories.

1. ANTH 120
2. ECON 110, 120, 121
3. ANTH 120; HIST 118, 119, 130\*, 131, 150, 151, 180, 181\*; PSY 125; RELG 150; SPAN 145
4. HIST 122\*, 123\*, 210
5. GEOG 106, 130
6. HIST 108\*, 109\*, 114\*, 115\*, 118, 119, 122\*, 123\*, 124, 150, 151, 180, 181\*, 275, 276, 277
7. CD 125; HED 120, 251; HIST 118, 119, 122\*, 123\*, 180, 181\*; PSY 138, 165; SOC 130
8. HIST 108\*, 109\*, 124; POSC 120, 121\*, 124, 130, 140\*
9. PSY 120, 125, 134, 140, 165, 170, 220
10. SOC 120, 125, 130

### AREA E – LIFELONG UNDERSTANDING AND SELF-DEVELOPMENT

This requirement is fulfilled by taking 3 semester units from any of the following courses:

- CD 125
- HED 120, 122, 155, 158, 251
- PDC 124
- PSY 134, 140
- SOC 125

† Will receive general education credit for SPAN 120B only after completion of SPAN 120A.

### AMERICAN INSTITUTIONS REQUIREMENT (CSU GRADUATION REQUIREMENT)

\*Fulfills part of the CSU U.S. History, Constitution and American Ideals requirement. Although this requirement is not part of the general education requirement, all students must complete course work in U.S. History, Constitution and Government. May be completed prior to transfer. Two courses (minimum of six units) are required – these courses may also be used to meet part of the requirements in Area D. Please check with a counselor for approved combinations of courses or visit [www.assist.org](http://www.assist.org). Additional courses pending approval.

## COURSES ACCEPTED FOR TRANSFER TO THE CALIFORNIA STATE UNIVERSITY (CSU)

See Course Descriptions for information regarding CSU transferability. Courses that meet specific general education requirements are identified under the heading “General Education Breadth Requirements for the California State University 2005-2006” in this section. Some campuses place limits on the transferability of special studies (199) and selected topics (299) courses. Check with the specific campus you plan to attend concerning their policy on these courses.

## INDEPENDENT CALIFORNIA COLLEGES AND UNIVERSITIES

California's fully accredited independent colleges and universities provide a host of options at undergraduate, graduate and professional levels for students planning to continue their education beyond community college.

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

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

Information regarding financial aid provided at private four-year institutions may be obtained at the Financial Aid Office.

## GENERAL DEGREE AND CERTIFICATE INFORMATION

### General Degrees

Cuyamaca College provides occupational and general education for the student who plans to complete formal education at the community college level. In addition, the college provides the lower division requirements in general education and pre-professional majors for those students who plan to transfer to upper division colleges and universities.

To assist the student in educational planning, this section of the catalog describes the graduation requirements for the Associate in Science degree, Associate in Arts degree and certificate programs.

Granting of the AS or AA degree to a student indicates successful completion of basic and general educational requirements, plus evidence of proficiency in a specialized field. In addition, certificates are available to those who have attained well-defined levels of competency in specific areas. As a member of the Western Association of Schools and Colleges and the National Commission of Accrediting, most courses taken at Cuyamaca College are fully accepted on transfer by the University of California, all California State University campuses and other universities throughout the United States.

### Technical-Occupational Degrees

The emphasis on career planning and education at Cuyamaca College is evidenced by the number of available programs leading to the AS degree. (Students may petition for the AA degree upon presenting evidence of special

need to the Petitions Committee.) In curriculum planning for career education, citizens advisory committees composed of persons from various fields of specialization give of their time in order to insure quality courses that furnish the student with proficiencies essential to employment, retention on the job and for living a more productive and full life.

The AS degree program consists of 18 or more units of technical or occupational courses in the area of concentration. The major area is designated on the diploma.

Students enrolled in degree programs are required to take general education courses in areas such as biological and physical sciences, social and behavioral sciences, humanities, and written and oral communication.

Many of the units earned in programs at Cuyamaca College are accepted toward the bachelor degree at four-year institutions. Persons wishing to discuss career planning should consult with a counselor or a representative of the program in which they have special interest prior to registration.

### General Major Degrees

Cuyamaca College recognizes that the educational program of any student should be composed of courses which are meaningful and appropriate. To meet this goal, the College provides for maximum flexibility by combining courses in a general major. Students may design the major which best meets their needs. If the student wishes to meet the requirements for a particular major at a selected four-year college or university, a course of study can be designated to meet the pattern suggested in the catalog of the transfer institution.

The student not intending to transfer, or who is as yet undecided, can create a major program by combining a minimum of 18 units selected in consultation with a counselor.

### Technical-Occupational Certificates

A Certificate of Achievement may be awarded for successful completion of a prescribed course of study. To qualify for a certificate, a student must:

1. Complete all courses which are listed for the major area in the Associate Degree section of this catalog.
2. Achieve a "C" average (2.0 GPA) for all courses which are to be applied toward the certificate.
3. Complete at least one required course at Cuyamaca College during the semester in which the certificate is earned. All courses taken for the certificate must be graded courses (A-F).
4. File a petition for the certificate in the Admissions and Records Office before the deadline of the semester in which the requirements will be completed. (See Academic Calendar for deadline dates.)
5. The student may choose to meet requirements in a catalog published after admission provided continuous attendance is maintained. A student not in continuous attendance at Cuyamaca College should be aware that he/she must meet certificate requirements listed in the catalog in effect at the time of readmission unless he/she has applied for and been granted a leave of absence.

### General Education Student Learning Outcomes

Cuyamaca College has adopted *Student Learning Outcomes* as an integral part of the General Education course pattern. All general education courses incorporate selected outcomes in the following areas: Thinking Skills; Quantitative Skills; Communication Skills; Lifelong Learning Skills; Adaptability to Change; and Enhancement of Personal Values. As well, courses are designed to include specific *Student Learning Outcomes* in the following areas:

- Interdisciplinary linkages: Promote an appreciation for the interdisciplinary and interdependent nature of courses in the curriculum.
- Information competency: Demonstrate competency in retrieving, organizing and using information.
- Writing-across-the-curriculum: Demonstrate competency in writing skills as a course and general education requirement.
- Diversity: Develop knowledge of different cultures, abilities and lifestyles; strengthen respect and the ability to work effectively with individuals from diverse populations.
- Workplace skills: Develop knowledge and specific applicable skills that are transferable to the workplace.

## DEGREE REQUIREMENTS

### A.S. OR A.A. GENERAL EDUCATION REQUIREMENTS:

#### AREA A – LANGUAGE AND RATIONALITY

(Minimum of 6 semester units)

This requirement is met by taking one course from each of the two areas:

1. **Written Communication:**  
ENGL 110, 120
2. **Oral Communication and Analytical Thinking:**  
COMM 120, 122, 137  
MATH 103, 110, 120, 125, 150, 160, 170, 175, 176,  
178, 180, 245, 280, 281, 284  
PHIL 125, 130  
PSY 215

#### AREA B – NATURAL SCIENCES

(Minimum of 4 semester units)

This requirement is met by taking a course that includes a laboratory (laboratory courses are underlined):

ANTH 130  
ASTR 110, 112  
BIO 112, 115, 122, 126, 128, 130, 131, 140, 210, 220, 221  
CHEM 115, 116, 120, 141  
ET 110  
GEOG 120, 121  
GEOL 104, 110  
OCEA 112  
PHYC 110, 120, 121, 130, 131, 190, 200, 210

#### AREA C – HUMANITIES

(Minimum of 3 semester units)

This requirement is met by taking one of the following courses:

ARAM 120, 121, 220  
ARBC 120, 121, 220, 221, 250, 251  
ART 100, 120, 124, 129, 140, 141, 144, 145  
ASL 120  
COMM 124, 145  
ENGL 122, 201, 202, 207, 214, 217, 221, 222, 231, 232,  
270, 271, 275, 276, 277  
FREN 120, 121, 220, 221, 250, 251  
HIST 100, 101, 105, 106, 210  
HUM 110, 120, 140, 155  
MUS 110, 111, 115, 116  
PHIL 110, 115, 117, 140, 160  
RELG 100, 120, 130, 140, 150, 200, 210, 215  
SPAN 120, 120A & 120B\*, 121, 141, 145, 220, 221, 250, 251  
THTR 110

#### AREA D – SOCIAL AND BEHAVIORAL SCIENCES

(Minimum of 3 semester units)

This requirement is met by taking one of the following courses:

ANTH 120  
CD 125  
ECON 110, 120, 121  
GEOG 106, 130  
HED 120, 122  
HIST 108, 109, 114, 115, 118, 119, 122, 123, 124,  
130, 131, 180, 181  
POSC 120, 121, 124, 130, 140  
PSY 120, 125, 134, 138, 140, 165, 170, 220  
SOC 120, 125, 130

#### ADDITIONAL REQUIREMENTS:

(Minimum 6 semester units)

This requirement is met by selecting two additional courses.

The two courses must come from two different areas:

- Area B, Natural Sciences
- Area C, Humanities
- Area D, Social and Behavioral Sciences

\*Will receive general education credit for SPAN 120B only after completion of SPAN 120A.

NOTE: General Education course choices for transfer and the Associate Degree may differ between Cuyamaca College and Grossmont College. Each college strongly recommends that students visit the Counseling Centers for specific information if they plan to attend both campuses.

#### DEGREE REQUIREMENTS:

Cuyamaca College will confer the Degree of Associate in Science or Associate in Arts upon students who successfully complete the following requirements:

1. A minimum of 60 semester units of college work.  
English composition course credit: Students may receive credit for only one English composition course below transferable freshman composition (ENGL 120) toward degree requirements.

2. Competency Requirements
  - A. Completion of ENGL 110 with a grade of "C" or better, or a grade of "CR".
  - B. Completion of MATH 103 or a higher numbered mathematics class with a grade of "C" or better, or a grade of "CR" or completion of MDTP Assessment placing into a class higher than MATH 103 or 110.
3. Exercise Science Degree Requirements
 

With the exception of the University Transfer Studies degree, two activity courses in exercise science are required for graduation from Cuyamaca College. These courses are marked with an asterisk in the "Course Descriptions" section.

  - A. If medical reasons necessitate exclusion from exercise science, a medical statement must be on file with the Admissions and Records Office. Adaptive exercise science classes are available.
  - B. Veterans who have completed at least one year of honorable active service will receive two units of credit for exercise science which will satisfy the activity requirement for graduation. To receive credit for military service, a DD-214 or appropriate military records must be submitted to the Admissions and Records Office.
4. Achievement of a "C" average (2.0 GPA) in all college work counted toward degree requirements.
5. A maximum of 12 "CR" semester units taken in regular course work at this institution may be counted toward the 60 semester units required for graduation but shall not be included as part of the requirements for the major.
6. Residency
  - A. Students enrolled at Cuyamaca College during the semester in which they will have met all graduation requirements may obtain their degree from Cuyamaca College if they have satisfactorily completed AT LEAST 12 DEGREE APPLICABLE SEMESTER UNITS of approved course work at Cuyamaca College.
  - B. Students enrolled at another college during the semester in which all graduation requirements are met but who wish to obtain their degree from Cuyamaca College must have taken AT LEAST 45 DEGREE APPLICABLE SEMESTER UNITS of approved course work at Cuyamaca College.
7. Petition for Graduation
  - A. It is the responsibility of the student who expects to graduate to file a written petition for graduation on the form provided by the Admissions and Records Office. The application should be filed prior to the deadline for the semester in which the student plans to complete requirements for a degree. (See Academic Calendar for deadline dates.)
  - B. Official transcripts from all colleges attended must be on file in the Admissions and Records Office.
  - C. The student may choose to meet requirements in a catalog published after admission provided continuous attendance is maintained. A student not in continuous attendance at Cuyamaca College should be aware that he/she must meet degree requirements listed in the catalog in effect at the time of readmission unless he/she has applied for and been granted a leave of absence.
8. Philosophy of General Education
 

The General Education Program offers the following opportunities:

  - A. Development of verbal and quantitative learning skills.
  - B. Exposure to a wide spectrum of beliefs or principles of knowledge in the natural sciences, social sciences and the humanities.
  - C. Understanding and critical examination of cultural heritages and their implications for the future.
  - D. Development of the power of critical thinking, the ability to evaluate personal values, and the ability to understand and respond to general audience media presentations on general education subjects.
  - E. An approach to learning in an interdisciplinary manner to develop the ability to integrate general education knowledge.
  - F. Establishment of a broad base of intellectual and physical skills for a lifetime of continual learning.
9. Major Requirements
 

See "Associate Degree Programs and Certificates" for the major areas for the AS and AA degrees.
10. Additional Associate Degree
 

An additional associate degree may be earned under the following conditions:

  - A. Having received an AA or AS degree, the student may qualify for an additional AA or AS degree with the exception of an AA degree, General Major.
  - B. Having received a bachelor's degree or higher, the student may qualify for an AA or AS degree with the exception of an AA degree, General Major.
  - C. All General Education requirements as specified by the current catalog are met.
  - D. Completion of a major as specified in this catalog with a minimum of 12 remaining required semester units in the major completed at Cuyamaca College subsequent to the preceding degree(s) at any college.
11. Multiple Majors
 

Multiple majors differ from additional associate degrees (see section above) in that the student with a multiple major works simultaneously toward the completion of more than one major. Multiple majors must be available and meet general education requirements from the same catalog year. An AS degree with a multiple major can be earned by completion of all general education requirements plus the courses required for both majors as outlined in this catalog. Those students electing to graduate with a multiple major will receive a single diploma with both majors listed. The General Major may not be included as part of the multiple major.

\*A grade of "CR" (Credit) represents a "C" grade or better.

# ASSOCIATE DEGREE PROGRAMS & CERTIFICATES



## **ART - Drawing and Painting**

The Art-Drawing and Painting degree program is designed to provide a fundamental background in the two-dimensional studio arts, emphasizing both technique and aesthetic awareness.

This major provides preparation for transfer to a four-year college in fine art or a vocational area related to art.

**CAREER OPPORTUNITIES:** Advertising Specialist, Antique Dealer, Art Conservator, Art Therapist, Arts Administration, Cartoonist, Curator, Display Manager, Fashion Designer, Gallery Owner, Illustrator, Independent Artist, Interior Design, Jewelry Designer, Museum Technician, Painter, Police Artist, Set Designer, Teacher/Professor.



Diane Weintraub,  
Art Instructor

Debra Babylon,  
Art Instructor

## ASSOCIATE DEGREE PROGRAMS & CERTIFICATES

Program	Associate Degree	Certificate of Achievement	Certificate of Proficiency	Program	Associate Degree	Certificate of Achievement	Certificate of Proficiency
ACCOUNTING				ELEMENTARY EDUCATION	◆		
Accounting	◆	◆		ENGINEERING			
Bookkeeping		◆		Civil Engineering	◆	◆	
ART				Electrical & Computer Engineering	◆	◆	
Drawing and Painting	◆			Mechanical & Aerospace Engineering	◆	◆	
Graphic Design (Transfer)	◆			ENGLISH	◆	◆	
AUTOMOTIVE TECHNOLOGY	◆	◆		ENTREPRENEURSHIP–SMALL BUSINESS MANAGEMENT	◆	◆	
Advanced Engine Performance and Emissions		◆		ENVIRONMENTAL HEALTH AND SAFETY TECHNOLOGY			
ASEP	◆			Environmental Management	◆		
ASSET	◆			Environmental Technician		◆	
Brakes and Front-End		◆		Occupational Safety and Health (OSH) Management	◆		
Engine Performance and Drive Train		◆		Occupational Safety and Health (OSH) Technician		◆	
BIOLOGICAL SCIENCES	◆			EXERCISE SCIENCE	◆		
BUSINESS				Recreational Leadership–School-Based Programs			◆
Business Administration	◆	◆		GENERAL MAJOR	◆		
Business-General	◆	◆		GRAPHIC DESIGN	◆	◆	
Call Center Customer Service Representative			◆	Digital Photography			◆
Database Administration			◆	Web Graphics			◆
BUSINESS OFFICE TECHNOLOGY	◆	◆		HISTORY	◆		
Administrative Assistant	◆	◆		MANAGEMENT	◆	◆	
Executive Assistant	◆	◆		MATHEMATICS	◆	◆	
Office Assistant Level I			◆	MUSIC EDUCATION	◆		
Office Assistant Level II			◆	ORNAMENTAL HORTICULTURE			
Office Professional			◆	Arboriculture	◆	◆	
Office Software Specialist Level I			◆	Floristry	◆	◆	
Office Software Specialist Level II			◆	Golf Course and Sports Turf Management	◆	◆	
CADD TECHNOLOGY				Irrigation Technology	◆	◆	
Building Design Industry	◆	◆		Landscape Design	◆	◆	
Manufacturing Industry	◆	◆		Landscape Technology	◆	◆	
CHEMISTRY	◆			Nursery Technology	◆	◆	
CHILD DEVELOPMENT				PARALEGAL STUDIES	◆		
Infants and Toddlers	◆	◆		PHYSICAL SCIENCE	◆		
Preschool Children	◆	◆		PHYSICS	◆		
School Age Child Care	◆	◆		REAL ESTATE	◆	◆	
Early Childhood Intervention			◆	Escrow		◆	
Recreational Leadership–Outdoor Programs			◆	SPANISH	◆	◆	
COMMUNICATION	◆			SURVEYING	◆	◆	
COMPUTATIONAL SCIENCE	◆	◆		UNIVERSITY TRANSFER STUDIES	◆		
COMPUTER AND INFORMATION SCIENCE				WATER/WASTEWATER TECHNOLOGY			
Computer Network Administration	◆	◆		Cross Connection Control Systems	◆	◆	
Telecommunications Networking Technology	◆			Water Distribution Systems	◆	◆	
Telecommunications Networking Technician		◆		Water Treatment Plant Operator	◆	◆	
Web Development	◆	◆		Wastewater Collection Systems	◆	◆	
Cisco Systems			◆	Wastewater Treatment Operator	◆	◆	
Computer Programming			◆				
Network Servicing Technology			◆				
Operating Systems			◆				
Telecommunications Servicing Technology			◆				
Web Design			◆				
Web Programming			◆				
Web Server Management			◆				

**NOTE:** Course choices for transfer and the Associate Degree may differ between Cuyamaca and Grossmont Colleges. Each college strongly recommends that students visit the Counseling Centers for specific information if they plan to attend both campuses.

## ACCOUNTING (Major Code: 50020)

This degree program is designed to prepare students to enter the workforce as accounting technicians or tax technicians. The curriculum is supported by related business courses and a strong general education program for students interested in qualifying for responsible positions in accounting. **Designed for a two-year degree or certificate only. Students interested in pursuing a bachelor's degree in accounting should consult the catalog of the transfer institution for specific requirements.**

### CAREER OPPORTUNITIES

- \*Auditor
- \*Budgeter
- \*Bank Examiner
- Bookkeeper
- \*Cost Accountant
- \*Certified Accountant
- \*Controller
- Credit Card Clerk
- Securities Clerk
- \*Systems Analyst
- \*Tax Specialist/Accountant
- \*Treasurer

\*Bachelor Degree or higher required

### Associate in Science Degree Requirements:

Course	Title	Units
BUS 120	Financial Accounting	4
BUS 121	Managerial Accounting	4
BUS 122	Intermediate Accounting	4
BUS 124	Auditing	3
BUS 125	Business Law: Legal Environment of Business	3
BUS 128	Business Communication	3
BUS 150	Individual Income Tax Accounting	3
BUS 162	Analysis of Financial Statements	3
BUS 176	Computerized Accounting Applications	2
CIS 110	Principles of Information Systems	4
	Total Required	33
	Plus General Education Requirements	

### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Accounting. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

### BOOKKEEPING CERTIFICATE (Major Code: 50024)

This certificate is for students who need very specific training in the area of bookkeeping/accounting, either to obtain the necessary skills for an entry level office position, or to provide technical competence for advancement within the office environment. The certificate does not require completion of the "core" curriculum; it may be completed during two semesters of concentrated study.

### Certificate Requirements:

Course	Title	Units
BOT 123-125	Comprehensive Excel Levels I-III	3
BUS 109	Elementary Accounting	3
<b>or</b>		
BUS 120	Financial Accounting	4
BUS 121	Managerial Accounting	4
BUS 128	Business Communication	3
BUS 129	Payroll Accounting and Business Taxes	2
BUS 176	Computerized Accounting Applications	2
CIS 105	Introduction to Computing	3
	Total Required	20-21

NOTE: BUS 109 may be taken instead of BUS 120 for the Bookkeeping Certificate only.

### Certificate of Achievement

Students who complete the requirements above qualify for a Certificate in Bookkeeping. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

# ART

## I. ART–DRAWING AND PAINTING (Major Code: 53044)

This degree program is designed to provide a fundamental background in the two-dimensional studio arts, emphasizing both technique and aesthetic awareness. Students will develop their ability to control line, value, shape, color, perspective and composition in various mediums. The major provides preparation for transfer to a four-year college in fine art or a vocational area related to art. The curriculum consists of courses in both studio techniques and art history.

### CAREER OPPORTUNITIES

- \*Advertising Specialist
- Antique Dealer
- \*Art Conservator
- \*Art Therapist
- Arts Administration
- Cartoonist
- \*Curator
- Display Manager
- \*Fashion Designer
- Gallery Owner
- Illustrator
- Independent Artist
- \*Interior Design
- Jewelry Designer
- Museum Technician
- Painter
- Police Artist
- Set Designer
- \*Teacher/Professor

\*Bachelor Degree or higher required

### Associate in Arts Degree Requirements:

Course	Title	Units
ART 120	Two-Dimensional Design	3
ART 121	Painting I	3
ART 124	Drawing I	3
ART 125	Drawing II	3
ART 140	History of Western Art I: Prehistoric to 1250 A.D.	3
ART 141	History of Western Art II: 1250 A.D. to Present Time	3
ART 230	Figure Drawing I	3
GD 105	Fundamentals of Digital Media	3
		24

### Select six (6) units from the following:

ART 129*	Three-Dimensional Design	3
ART 135	Watercolor I	3
ART 145	Contemporary Art History: 1945-Present	3
ART 220	Painting II	3
ART 231	Figure Drawing II	3
GD 126ABCD	Photoshop Digital Imaging	3
GD 225ABCD	Digital Illustration	3
		6
Total Required		30
Plus General Education Requirements		

### Recommended Electives:

FREN 120, HIST 105, HUM 155, RELG 120

\*Offered at Grossmont College

## II. ART–GRAPHIC DESIGN (Transfer)

(Major Code: 53050)

This degree program emphasizes aesthetics, design and craft using manual and digital mediums. Students will develop their ability to think spatially in two and three dimensions and to use creative problem-solving techniques using images and letter forms. Students will develop a professional portfolio for placement at a four-year university.

**Designed for students interested in pursuing a Bachelor's degree in Graphic Design. Students should consult the catalog of the transfer institution for specific requirements. Students interested in pursuing the entry level, two-year associate degree or certificate in Graphic Design should refer to the "Graphic Design" program.**

### CAREER OPPORTUNITIES

- \*Advertising Director
- Advertising
- \*Art Director
- Desktop Publishing
- Display Designer
- Graphic Designer
- Illustrator
- \*Marketing Director
- Multimedia
- Package Designer
- Web Page Designer

\*Bachelor Degree or higher required

### Associate in Arts Degree Requirements:

Course	Title	Units
ART 120	Two-Dimensional Design	3
ART 121	Painting I	3
ART 124	Drawing I	3
ART 125	Drawing II	3
ART 129*	Three-Dimensional Design	3
ART 140	History of Western Art I: Prehistoric to 1250 A.D.	3
ART 141	History of Western Art II: 1250 A.D. to Present Time	3
ART 230	Figure Drawing I	3
GD 105	Fundamentals of Digital Media	3
GD 110	Beginning Graphic Design	3
GD 125	Typography	3
Total Required		33
Plus General Education Requirements		

### Recommended Electives:

ART 150\*, BUS 110, GD 230

\*Offered at Grossmont College

## AUTOMOTIVE TECHNOLOGY

The automotive technology curriculum provides for entry level skills in the automotive field. The program is designed to impart in-depth technical skills as required in today's highly technical automotive field. Preparation for employment in the automotive and/or transportation trades, with upgrading and specialization skills for those currently employed will be stressed. Emphasizes practical experience in actual repairs under simulated shop conditions.

### CAREER OPPORTUNITIES

Auto Electrician  
 Auto Parts Salesperson  
 Automotive Air Conditioning Technician  
 Brake and Front-End Technician  
 Computerized Engine Control Specialist  
 Engine Machinist  
 General Repair Technician  
 High Performance and Racing Specialist  
 Licensed Smog Technician  
 Manufacturer Service Engineer  
 Service Advisor  
 Service Manager  
 Technical Instructor  
 Technical Sales Representative  
 Transmission Technician  
 Tune-up Technician

### I. AUTOMOTIVE TECHNOLOGY (Major Code: 51000)

#### Associate in Science Degree Requirements:

Course	Title	Units
AUTO 120	Engine Performance I - Mechanical and Ignition Systems	5
AUTO 121	Emission Control License	5
AUTO 122	Automotive Electrical Systems	5
AUTO 123	Engine Performance II - Fuel Systems	5
AUTO 124	Engine Performance III - Drivability	5
AUTO 180	Automotive Service Advisor	1
AUTO 182	Automotive Work Experience	3
		<u>29</u>

#### Select two (2) of the following:

AUTO 129	Introduction to Alternative Fuels	3.5
AUTO 130	Automotive Brakes and Brake License	5
AUTO 140	Four-Wheel Alignment	5
AUTO 152	Drive Train Systems	4
AUTO 160	Air Conditioning and Heating Systems	3
AUTO 170	Engine Overhaul	5
		<u>6.5-10</u>

#### Select one (1) of the following:

AUTO 127	Advanced Automotive Electrical Systems	5
AUTO 135	Advanced Brakes	5
AUTO 145	Advanced Four-Wheel Alignment	5
AUTO 155	Advanced Drive Train Systems	4
AUTO 165	Advanced Air Conditioning and Heating Systems	3
AUTO 175	Advanced Engine Overhaul	5
AUTO 176	Engine Machining	5
		<u>3-5</u>
	Total Required	38.5-44
	Plus General Education Requirements	

FOR ALL CLASSES: Students are required to provide their own hand tools as required. Students are also required to provide ANSI Z-87.1 (1979) eye protection.

### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Automotive Technology. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

### II. AUTOMOTIVE TECHNOLOGY-ADVANCED ENGINE PERFORMANCE AND EMISSIONS (Major Code: 51006)

#### Certificate Requirements:

Course	Title	Units
AUTO 120	Engine Performance I - Mechanical and Ignition Systems	5
AUTO 121	Emission Control License	5
AUTO 122	Automotive Electrical Systems	5
AUTO 123	Engine Performance II - Fuel Systems	5
AUTO 124	Engine Performance III - Drivability	5
	Total Required	<u>25</u>

### Certificate of Achievement

Students who complete the requirements above qualify for a Certificate in Automotive Technology-Advanced Engine Performance and Emissions. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

### III. AUTOMOTIVE TECHNOLOGY-ASEP (Major Code: 51007)

The General Motors sponsored ASEP degree program offers a unique job training opportunity to those students who are accepted. Training includes all systems of the sponsoring manufacturers' automobiles. In addition, students will be required to further their studies in a sponsoring dealership as a paid (work experience) technician. Not offered as a certificate; all students must complete the general education requirements in addition to the requirements listed below. Candidates who successfully complete these requirements will be granted an Associate Degree.

#### NOTE:

- Grade point average of "C" (2.0) is required for the major.
- Students who test low in English, reading or math assessment scores (and are accepted into the program) will be required to take remedial courses in those areas in addition to the general education courses.
- Students who have previous college credit or an Associate Degree or higher may be exempt from all or part of the general education requirements. (Students should request an appointment with a counselor to have their General Education requirements evaluated.)

**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
AUTO 121	Emission Control License	5
AUTO 200	ASEP–Orientation	1
AUTO 201	ASEP–Electrical	6
AUTO 202	ASEP–Brakes and Alignment	7
AUTO 203	ASEP–Engine Repair	4.5
AUTO 204	ASEP–Power Train	7
AUTO 205	ASEP–Engine Performance and Air Conditioning	7
		37.5

**Work Experience:**

AUTO 206*	ASEP–Work Experience	15
	Total Required	52.5
	Plus General Education Requirements	

\*Must be repeated 5 times for a total of 15 units

**IV. AUTOMOTIVE TECHNOLOGY–ASSET**  
(Major Code: 51005)

The Ford sponsored ASSET degree program offers a unique job training opportunity to those students who are accepted. Training includes all systems of the sponsoring manufacturers' automobiles. In addition, students will be required to further their studies in a sponsoring dealership as a paid (work experience) technician. Not offered as a certificate; all students must complete the general education requirements in addition to the requirements listed below. Candidates who successfully complete these requirements will be granted an Associate Degree.

**NOTE:**

- Grade point average of "C" (2.0) is required for the major.
- Students who test low in English, reading or math assessment scores (and are accepted into the program) will be required to take remedial courses in those areas in addition to the general education courses.
- Students who have previous college credit or an Associate Degree or higher may be exempt from all or part of the general education requirements. (Students should request an appointment with a counselor to have their General Education requirements evaluated.)

**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
AUTO 121	Emission Control License	5
AUTO 190	ASSET–Orientation, PDI and Lubrication	2
AUTO 191	ASSET–Brakes and Alignment	7
AUTO 192	ASSET–Drive Train	8
AUTO 193	ASSET–Engine Repair	4.5
AUTO 195	ASSET–Electronic Engine Controls	7
AUTO 196	ASSET–Electrical, Accessories and Air Conditioning	5
		38.5

**Work Experience:**

AUTO 197*	ASSET–Work Experience	13
	Total Required	51.5
	Plus General Education Requirements	

\*Must be repeated 5 times for a total of 13 units

**V. AUTOMOTIVE TECHNOLOGY–BRAKES AND FRONT-END** (Major Code: 51003)

**Certificate Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
AUTO 130	Automotive Brakes and Brake License	5
AUTO 140	Four-Wheel Alignment	5
AUTO 145	Advanced Four-Wheel Alignment	5
AUTO 180	Automotive Service Advisor	1
AUTO 182	Automotive Work Experience	3
	Total Required	19

**Certificate of Achievement**

Students who complete the requirements above qualify for a Certificate in Automotive Technology–Brakes and Front-End. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**VI. AUTOMOTIVE TECHNOLOGY–ENGINE PERFORMANCE AND DRIVE TRAIN**  
(Major Code: 51002)

**Certificate Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
AUTO 120	Engine Performance I - Mechanical and Ignition Systems	5
AUTO 152	Drive Train Systems	4
AUTO 170	Engine Overhaul	5
AUTO 180	Automotive Service Advisor	1
AUTO 182	Automotive Work Experience	3
	Total Required	18

**Certificate of Achievement**

Students who complete the requirements above qualify for a Certificate in Automotive Technology–Engine Performance and Drive Train. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

## BIOLOGICAL SCIENCES

(Major Code: 59500)

This degree program is designed to provide a two-year transfer program with emphasis on the uniformity and diversity of life. The major fulfills the lower division requirements for majors in biology, dentistry, medicine, nursing, pharmacy, environmental health, microbiology and ecology.

### CAREER OPPORTUNITIES

- \*Aquatic Biologist
- \*Athletic Trainer
- \*Biologist
- \*Biochemical Engineer
- Biological Technician
- Biomedical Equipment Technician
- Biotechnologist
- \*Botanist
- Clinical Lab Technologist
- \*Cytologist
- \*Ecologist
- \*Environmental Engineer
- Environmental Technician
- \*Environmental Microbiologist
- Genetic Engineering Technician
- Greenhouse Assistant
- Laboratory Technician
- \*Physical Therapist
- \*Public Health Biologist
- Purification Technician
- Research Assistant
- Safety Specialist
- \*Teacher
- Technical Writer
- Waste Management Technician

\*Bachelor Degree or higher required

### Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
BIO 210	Biology II	4
BIO 215	Statistics for Life Sciences	3
BIO 220	Principles of Molecular, Cellular and Evolutionary Biology	3
BIO 221	Principles of Molecular, Cellular and Evolutionary Biology Laboratory	1
CHEM 141	General Chemistry I	5
CHEM 142	General Chemistry II	5
CHEM 231	Organic Chemistry I	5
MATH 180	Analytic Geometry and Calculus I	5
PHYC 130	Fundamentals of Physics	4
PHYC 131	Fundamentals of Physics	4
	Total Required	39
	Plus General Education Requirements	

## BUSINESS

### I. BUSINESS ADMINISTRATION (Major Code: 50041)

This degree program is designed to give students who choose to work toward a bachelor's degree a well-balanced introduction to a professional career in business. Fulfills the lower division requirements for most majors in the School of Business Administration at San Diego State University and is typical of requirements at other four-year schools. For specific requirements, transfer students should consult the catalog of their selected institution.

### CAREER OPPORTUNITIES

- \*Advertising/Marketing Manager
- \*Agricultural Marketing Specialist
- \*Banker
- \*Broker
- Consultant
- \*Computer Operations Specialist
- Credit Investigator
- \*Economic Forecaster
- \*Financial Analyst
- \*Hospital Administrator
- Import/Export Agent
- \*Market Research Analyst
- \*Personnel Manager
- Real Estate Broker/Agent
- Retail Manager
- \*Securities Analyst/Trader

\*Bachelor Degree or higher required

### Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
BUS 120	Financial Accounting	4
BUS 121	Managerial Accounting	4
BUS 125	Business Law: Legal Environment of Business	3
BUS 128	Business Communication	3
CIS 110	Principles of Information Systems	4
ECON 120	Principles of Macroeconomics	3
ECON 121	Principles of Microeconomics	3
MATH 160	Elementary Statistics	3
MATH 178	Calculus for Business, Social and Behavioral Sciences	4
	Total Required	31
	Plus General Education Requirements	

### Recommended Electives:

BUS 146, 156

### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Business Administration. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**II. BUSINESS–GENERAL (Major Code: 50010)**

This degree program is designed to develop and foster those skills and understandings which can be utilized for employment in an increasingly challenging business environment. Provides students with a broad preparation for a career in business. Business courses are included which provide a solid background for future promotion in a chosen occupational area. Designed for students who do not plan to transfer to a four-year college or university.

**CAREER OPPORTUNITIES**

- Administrative Assistant
- Bookkeeper
- \*Budget Consultant
- Buyer
- Conciliator
- \*Credit Analyst
- Employment Interviewer
- \*Hospital Administrator
- Sales Agent
- \*Trust Officer

\*Bachelor Degree or higher required

**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
BUS 109	Elementary Accounting	3
<b>or</b>		
BUS 120	Financial Accounting	4
BUS 110	Introduction to Business	3
BUS 115	Human Relations in Business	3
BUS 125	Business Law: Legal Environment of Business	3
BUS 127*	Business English and Communication	3
<b>or</b>		
BUS 128	Business Communication	3
BUS 146	Marketing	3
BUS 152*	Business Mathematics	2
BUS 195	Family Income Management	3
CIS 105	Introduction to Computing	3
<b>or</b>		
CIS 110	Principles of Information Systems	4
ECON 120	Principles of Macroeconomics	3
	Total Required	29-31
	Plus General Education Requirements	

\*Offered at Grossmont College

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Business–General. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**CERTIFICATES OF PROFICIENCY:**

Students who complete the requirements below qualify for a Certificate of Proficiency in that area of emphasis. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**I. CALL CENTER CUSTOMER SERVICE REPRESENTATIVE (Major Code: 57113)**

Designed for students seeking jobs in the expanding telephone call center industry. Provides training as recommended by the Customer Service Training Program advisory committee. The curriculum provides the basic computing and critical thinking skills that employers in the telephone call center industry are looking for.

**Certificate Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
BUS 105	Contact Center and Help Desk Procedures	2.5
BUS 106	Providing Quality Service	2
BUS 128	Business Communication	3
CIS 105	Introduction to Computing	3
	Total Required	10.5

**II. DATABASE ADMINISTRATION (Major Code: 57127)**

**Certificate Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
BUS 240	SQL for Business Applications	3
BUS 242	Data Mining	3
CIS 140	Databases	3
CIS 240	Advanced Databases	3
CIS 242	Database Design	3
	Total Required	15

## BUSINESS OFFICE TECHNOLOGY

### I. BUSINESS OFFICE TECHNOLOGY (Major Code: 59501)

This degree program prepares students for employment in today's business offices which are technology intensive. The curriculum is also appropriate for those wishing to update current skills. Emphasis is on the computerized office and development into supervisory positions.

#### CAREER OPPORTUNITIES

Account Clerk  
 Administrative Assistant  
 Bank Teller  
 Billing Clerk  
 Bookkeeper  
 Brokerage Clerk  
 Computer Operator  
 Court Clerk  
 Customer Service Representative  
 Executive Assistant  
 Executive Secretary  
 File Clerk  
 General Office Clerk  
 Hotel/Motel Desk Clerk  
 Information Clerk  
 Insurance Clerk  
 Legal Secretary  
 Loan/Credit Clerk  
 Medical Secretary  
 Office Manager  
 Personnel Clerk  
 Real Estate Clerk  
 Secretary  
 Word Processing Specialist

#### Associate in Science Degree Requirements:

Course	Title	Units
BOT 100	Basic Keyboarding	1
BOT 101AB	Keyboarding/Document Processing	3
BOT 102AB	Intermediate Keyboarding/Document Processing I-II	3
BOT 107	Office Systems and Procedures	2
BOT 120-122	Comprehensive Word Levels I-III	3
BUS 128	Business Communication	3
CIS 105	Introduction to Computing	3
<b>or</b>		
CIS 110	Principles of Information Systems	4
		18-19

#### Select at least six (6) units from the following:

BOT 108	Using Calculators to Solve Business Problems	1
BOT 123-125	Comprehensive Excel Levels I-III	3
BUS 109	Elementary Accounting	3
<b>or</b>		
BUS 120	Financial Accounting	4
BUS 156	Principles of Management	3
BUS 157	Principles of Leadership	3
BUS 176	Computerized Accounting Applications	2
CIS 140	Databases	3
		6
	Total Required	24-25
	Plus General Education Requirements	

### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Business Office Technology. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

### II. ADMINISTRATIVE ASSISTANT (Major Code: 50149)

#### Associate in Science Degree Requirements:

Course	Title	Units
BOT 102AB	Intermediate Keyboarding/Document Processing I-II	3
BOT 104	Filing and Records Management	1
BOT 107	Office Systems and Procedures	2
BOT 108	Using Calculators to Solve Business Problems	1
BOT 114	Essential Word	1
<b>or</b>		
BOT 120-122	Comprehensive Word Levels I-III	3
BOT 115	Essential Excel	1
<b>or</b>		
BOT 123-125	Comprehensive Excel Levels I-III	3
BOT 116	Essential Access	1
<b>or</b>		
BOT 126-128	Comprehensive Access Levels I-III	3
BOT 117	Essential PowerPoint	1
<b>or</b>		
BOT 129-131	Comprehensive PowerPoint Levels I-III	3
BOT 118	Integrated Office Projects	1
BOT 223-225	Office Work Experience	1-3
BUS 114	Effective Job Search	1
BUS 128	Business Communication	3
		17-27

#### Select at least three (3) units from the following:

BOT 103ABC	Building Keyboarding Skill I, II, III	.5
BOT 105	Data Entry Skills	1
BOT 150	Using Microsoft Publisher	1
BOT 151	Using Microsoft Outlook	1
BUS 109	Elementary Accounting	3
		3
	Total Required	20-30
	Plus General Education Requirements	

### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Administrative Assistant. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**III. EXECUTIVE ASSISTANT (Major Code: 50150)**

**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
BOT 120-122	Comprehensive Word Levels I-III	3
BOT 123-125	Comprehensive Excel Levels I-III	3
BOT 126-128	Comprehensive Access Levels I-III	3
<b>or</b>		
CIS 140	Databases	3
BOT 129-131	Comprehensive PowerPoint Levels I-III	3
BOT 151	Using Microsoft Outlook	1
BOT 201	Advanced Keyboarding/Document Processing	3
BOT 203	Office Project Coordination	1
BUS 128	Business Communication	3
		20

**Select at least three (3) units from the following:**

BUS 109	Elementary Accounting	3
BUS 110	Introduction to Business	3
BUS 115	Human Relations in Business	3
BUS 120	Financial Accounting	4
BUS 125	Business Law: Legal Environment of Business	3
		3

**Select at least three (3) units from the following:**

BOT 103ABC	Building Keyboarding Skill I, II, III	.5
BOT 150	Using Microsoft Publisher	1
BOT 280ABC	Preparing for Performance Examinations in Microsoft Word	.5
BOT 281ABC	Preparing for Performance Examinations in Microsoft Excel	.5
BOT 282ABC	Preparing for Performance Examinations in Microsoft Access	.5
BOT 283ABC	Preparing for Performance Examinations in Microsoft PowerPoint	.5
CIS 240	Advanced Databases	3
		3
	Total Required	26
	Plus General Education Requirements	

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Executive Assistant. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**CERTIFICATES OF PROFICIENCY:**

Students who complete the requirements below qualify for a Certificate of Proficiency in that area of emphasis. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**I. OFFICE ASSISTANT LEVEL I (Major Code: 57105)**

Prepares beginning students for work in positions that require keyboarding skills, basic knowledge of filing, and basic computer skills. Designed for students with no prior computer training and who lack general office background and experience. Upon completion of the certificate, students will qualify for positions as data entry clerks or other entry level office clerical positions.

**Certificate Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
BOT 096	Computer Basics for the Office	1
BOT 097	Windows Basics for the Office	1
BOT 100	Basic Keyboarding	1
BOT 101AB	Keyboarding/Document Processing	3
BOT 104	Filing and Records Management	1
BOT 105	Data Entry Skills	1
BUS 114	Effective Job Search	1
	Total Required	9

**II. OFFICE ASSISTANT LEVEL II (Major Code: 57106)**

Designed for students who have completed the Office Assistant Level I certificate or have the equivalent in keyboarding and computer skills. Prepares students for advancement in office careers in which knowledge of Microsoft Office applications is required.

**Certificate Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
BOT 102AB	Intermediate Keyboarding/Document Processing I-II	3
BOT 107	Office Systems and Procedures	2
BOT 114	Essential Word	1
BOT 115	Essential Excel	1
BOT 116	Essential Access	1
BOT 117	Essential PowerPoint	1
	Total Required	9

**III. OFFICE PROFESSIONAL (Major Code: 57104)**

Designed for entry-level positions in a broad spectrum of office environments. Utilizing a short-term, intensive format, students are provided with the basic skills necessary to be productive employees. The curriculum provides the foundation for further study and advancement in the clerical field, which is one of the largest employment areas in our information processing society.

**Certificate Requirements:**

Course	Title	Units
BOT 100	Basic Keyboarding	1
<b>or</b>		
BOT 101AB	Keyboarding/Document Processing	3
<b>or</b>		
BOT 102AB	Intermediate Keyboarding/Document Processing I-II	3
BOT 107	Office Systems and Procedures	2
BOT 114	Essential Word	1
BOT 115	Essential Excel	1
BOT 223	Office Work Experience	1
BUS 110	Introduction to Business	3
BUS 128	Business Communication	3
	Total Required	<u>12-14</u>

**IV. OFFICE SOFTWARE SPECIALIST LEVEL I**

(Major Code: 57107)

This certificate is designed for students who are interested in working in an administrative support capacity that need working knowledge of word processing, electronic spreadsheet, database and presentation software. These courses may also be applied to the Office Assistant Level II certificate of proficiency. *All courses must be completed with a grade of "C" or better.*

**Certificate Requirements:**

Course	Title	Units
BOT 100	Basic Keyboarding	1
BOT 114	Essential Word	1
<b>or</b>		
BOT 120-121	Comprehensive Word, Levels I-II	2
BOT 115	Essential Excel	1
<b>or</b>		
BOT 123-124	Comprehensive Excel, Levels I-II	2
BOT 116	Essential Access	1
<b>or</b>		
BOT 126-127	Comprehensive Access, Levels I-II	2
BOT 117	Essential PowerPoint	1
<b>or</b>		
BOT 129-130	Comprehensive PowerPoint, Levels I-II	2
	Total Required	<u>5-9</u>

**V. OFFICE SOFTWARE SPECIALIST LEVEL II**

(Major Code: 57108)

This certificate is designed for students who are interested in working in an administrative support capacity that need working knowledge of word processing, electronic spreadsheet, database and presentation software as well as software integration techniques. Students who complete the certificate may continue taking courses to earn the Executive Assistant Certificate of Achievement. *All courses must be completed with a grade of "C" or better.*

**Certificate Requirements:**

Course	Title	Units
BOT 100	Basic Keyboarding	1
BOT 118	Integrated Office Projects	1
BOT 120	Comprehensive Word, Level I	1
<b>or</b>		
BOT 114	Essential Word	1
BOT 121	Comprehensive Word, Level II	1
BOT 122	Comprehensive Word, Level III	1
BOT 123	Comprehensive Excel, Level I	1
<b>or</b>		
BOT 115	Essential Excel	1
BOT 124	Comprehensive Excel, Level II	1
BOT 125	Comprehensive Excel, Level III	1
BOT 126	Comprehensive Access, Level I	1
<b>or</b>		
BOT 116	Essential Access	1
BOT 127	Comprehensive Access, Level II	1
BOT 129	Comprehensive PowerPoint, Level I	1
<b>or</b>		
BOT 117	Essential PowerPoint	1
BOT 130	Comprehensive PowerPoint, Level II	1
	Total Required	<u>12</u>

## CADD TECHNOLOGY

Occupational preparation in Computer Aided Drafting and Design is the primary purpose of the CADD Technology degree program. Students are required to complete two core courses and then to select from two potential career paths: Building Design Industry or Manufacturing Industry. Adherence to industrial practices and standards is stressed with problem solving in a simulated industrial environment. Lower division requirements for transfer to the Engineering Program at SDSU may also be met.

### CAREER OPPORTUNITIES

CAD Technician in the field of Architecture and Civil, Electronic, Mechanical, Structural, and Surveying Engineering

#### Associate in Science Degree Requirements:

##### Core Curriculum

Course	Title	Units
CADD 115	Engineering Graphics	3
CADD 120ABCD	Basic CAD	3
		<u>6</u>

##### Areas of Emphasis:

#### A. BUILDING DESIGN INDUSTRY (Major Code: 53060)

CADD 127	Survey Drafting Technology	3
CADD 131	Architectural AutoCAD	3
CADD 132	3D AutoCAD	3
CADD 133	Architectural Revit	3
		<u>12</u>

#### Select two (2) of the following:

CADD/ENGR 125	3D Parametric Solid Modeling	3
CADD 126	Electronic Drafting	3
CADD 128	Dimensioning and Tolerancing	3
		<u>6</u>
	Total Required Including Core Classes	24
	Plus General Education Requirements	

#### B. MANUFACTURING INDUSTRY (Major Code: 53061)

CADD/ENGR 125	3D Parametric Solid Modeling	3
CADD 126	Electronic Drafting	3
CADD 128	Dimensioning and Tolerancing	3
		<u>9</u>

#### Select two (2) of the following:

CADD 127	Survey Drafting Technology	3
CADD 131	Architectural AutoCAD	3
CADD 132	3D AutoCAD	3
CADD 133	Architectural Revit	3
		<u>6</u>
	Total Required Including Core Classes	21
	Plus General Education Requirements	

### Certificate of Achievement

Students who complete only the courses required for the major including an area of emphasis qualify for a Certificate in CADD Technology in that area of emphasis. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

## CHEMISTRY (Major Code: 59502)

The chemistry curriculum is designed to give students who choose to work toward a bachelor's degree a well-balanced, lower division program with a strong emphasis on fundamentals and problem solving. This major fulfills the lower division requirements (except for analytical chemistry) for chemistry majors and is typical of the requirements at four-year colleges and universities.

### CAREER OPPORTUNITIES

Chemists work in a variety of fields, primarily those of the chemical, biotechnological, environmental, biomedical, pharmaceutical, electronics, forensic, agricultural and food industries. They usually work in analysis, research, development or production of materials. Management, marketing and teaching opportunities are also available.

\*Agricultural Chemist  
 \*Air Quality Control  
 \*Analytical Chemist  
 \*Biochemist  
 \*Chemistry Teacher  
 \*Dietician  
 \*Environmental Technologist  
 Fishery Specialist  
 \*Food And Drug Inspector  
 \*Forensic Specialist  
 Laboratory Technician  
 \*Materials Scientist  
 Medical Technologist  
 \*Microbiologist  
 \*Organic Chemist  
 \*Physician  
 \*Polymer Chemist  
 Sales Representative  
 Sanitarian Technician

\*Bachelor Degree or higher required

#### Associate in Science Degree Requirements:

Course	Title	Units
CHEM 141	General Chemistry I	5
CHEM 142	General Chemistry II	5
CHEM 231	Organic Chemistry I	5
MATH 180	Analytic Geometry and Calculus I	5
MATH 280	Analytic Geometry and Calculus II	4
MATH 281	Intermediate Calculus	4
PHYC 190	Mechanics and Heat	5
PHYC 200	Electricity and Magnetism	5
PHYC 210	Wave Motion and Modern Physics	5
	Total Required	<u>43</u>
	Plus General Education Requirements	

#### NOTE:

- Students pursuing an emphasis in biochemistry should also take the following courses: BIO 210, 220, 221.
- Students who intend to enroll at UCSD should take MATH 285 and check with the Counseling Center regarding program options.

## CHILD DEVELOPMENT

The child development curriculum is designed to prepare students for employment as teachers, directors and aides in preschools and child care centers, including infant/toddler and extended day facilities. Coursework meets the educational components of the Department of Social Services license regulations for child care programs. The degree meets the educational requirements of the Teacher, Master Teacher and Site Supervisor Child Development Permits. The courses are also appropriate for parents, administrators, health care professionals, and others working with children. Courses are designed to partially meet lower division course preparation for students planning a bachelor's degree in Child Development.

### CAREER OPPORTUNITIES

- \*Adoption Counselor
- Camping Guide
- Child Care Specialist
- \*Child Psychologist
- Curriculum Development
- \*Development Specialist (Child, Adolescent and Family)
- \*Educational Consultant
- Infant/Toddler Teacher
- Outdoor Education Specialist
- Preschool Director
- Preschool Teacher
- Recreation Leader
- \*Recreation Specialist
- School Age Child Care Teacher
- \*Social Service Specialist
- Special Education Assistant – Children with Special Needs

\*Bachelor Degree or higher required

### I. CHILD DEVELOPMENT

The major consists of 27 units of core curriculum; remaining units are taken in an area of emphasis. Students must choose at least one area of emphasis. *All courses must be completed with a grade of "C" or better.*

#### Associate in Science Degree Requirements:

##### Core Curriculum

Course	Title	Units
CD 123	Introduction to Programs and Curriculum for Young Children	3
CD 125	Child Growth and Development	3
CD 126	Art for Child Development	3
CD 127	Science and Mathematics for Child Development	3
CD 128	Music and Movement for Child Development	3
CD 129	Language and Literature for Child Development	3
CD 131	Child, Family and Community	3
CD 134	Health, Safety and Nutrition for Teachers of Young Children	3
CD 141	Working with Children with Special Needs	3
		27

#### Areas of Emphasis:

##### A. INFANTS AND TODDLERS (Major Code: 55031)

CD 124	Infant and Toddler Development	3
CD 132	Observation and Guidance for Child Development	2
CD 143	Infant/Toddler Curriculum	3
CD 170	Field Experience with Infants and Toddlers	2
		10
	Total Required Including Core Classes Plus General Education Requirements	37

##### B. PRESCHOOL CHILDREN (Major Code: 55030)

CD 130	Curriculum: Developmentally Appropriate Practices	3
CD 132	Observation and Guidance for Child Development	2
CD 133	Field Experience for Child Development	2
		7
	Total Required Including Core Classes Plus General Education Requirements	34

#### Recommended Electives and Continuing Education Units:

CD 124	Infant and Toddler Development	3
CD 135	Parent-Child Interaction	3
CD 139	Infant/Parent Development	2
CD 145	Child Abuse and Family Violence in our Society	3
CD 157	Food and Nutrition for Children	3

#### Certificate of Achievement

Students who complete only the courses required for the major including an area of emphasis qualify for a Certificate in Child Development in that area of emphasis. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

### II. SCHOOL AGE CHILD CARE (Major Code: 56032)

Designed to prepare students for employment in child care programs for elementary school age children. Certificate requirements meet the Title 22 licensing standards for teachers in school age child care programs. Some courses also meet prerequisites for students who wish to transfer to elementary education programs. *All courses must be completed with a grade of "C" or better.*

#### Associate in Science Degree Requirements:

Course	Title	Units
CD 125	Child Growth and Development	3
CD 131	Child, Family and Community	3
CD 132	Observation and Guidance for Child Development	2
CD 134	Health, Safety and Nutrition for Teachers of Young Children	3
CD 148	Curriculum for School Age Child Care	3
CD 149	School Age Child Care Program Planning	3
CD 150	Field Experience for School Age Child Care	2
		19

**Select one (1) of the following:**

CD 137	Administration of Child Development Programs I	3
CD 141	Working with Children with Special Needs	3
CD 145	Child Abuse and Family Violence in our Society	3
CD 157	Food and Nutrition for Children	3
ED 110	Introduction to American Education	3
ES 253	Physical Education in Elementary Schools	3
MATH 125	Structure and Concepts of Elementary Mathematics I	3
MATH 126	Structure and Concepts of Elementary Mathematics II	3
MUS 118	Introduction to Music	4
		3-4
	Total Required	22-23
	Plus General Education Requirements	

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in School Age Child Care. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**CERTIFICATES OF PROFICIENCY:****I. EARLY CHILDHOOD INTERVENTION**

(Major Code: 57128)

This certificate prepares students for entry-level positions and greater opportunities for advancement in the early childhood field. The certificate is designed to demonstrate an area of expertise in working with young children with special needs in typical early childhood programs and programs specifically designed for young children with special needs. *All courses must be completed with a grade of "C" or better.*

**Career Opportunities**

Students completing the certificate may find employment as an inclusion specialist, inclusion aide, or intervention assistant in a wide variety of programs serving young children with special needs. These programs include but are not limited to Head Start, State Preschools, special day classes, intervention programs, home visit programs, community-based programs such as park, recreation and camping programs, and faith-based early childhood programs.

**Certificate Requirements:**

Course	Title	Units
CD 125*	Child Growth and Development	3
CD 134	Health, Safety and Nutrition for Teachers of Young Children	3
CD 141	Working with Children with Special Needs	3
		9

**Select two (2) of the following:**

CD 126*	Art for Child Development	3
CD 127*	Science and Mathematics for Child Development	3
CD 128*	Music and Movement for Child Development	3
CD 129*	Language and Literature for Child Development	3
CD 131*	Child, Family and Community	3
		6
	Total Required	15

\*Meets the educational components of the Department of Social Services license regulations for child care programs.

Students who complete the requirements above qualify for a Certificate of Proficiency in Early Childhood Intervention. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**II. RECREATIONAL LEADERSHIP-****OUTDOOR PROGRAMS (Major Code: 57123)**

This certificate offers specific training for an entry-level position or for advancement in child care and outdoor programs for children and families. The certificate is designed to demonstrate an area of expertise that may be used to attain employment in outdoor recreational programs.

**Career Opportunities**

Students completing the certificate may find employment with schoolage child care programs and with public, private and commercial park and recreation agencies. They may work with agencies serving youth and families, and with leisure-related businesses and tourism agencies. Career opportunities include naturalists, outdoor education specialists, park interpreters, camping guides, arts and crafts leaders, and park and recreation class teachers and aides.

**Certificate Requirements:**

Course	Title	Units
CD 125	Child Growth and Development	3
CD 157	Food and Nutrition for Children	3
CD 200	Introduction to Outdoor Education Programs	1
CD 201	Creative Activities for Outdoor Programs	1
CD 202	Field Experience for Recreational Leadership	1
ES 253	Physical Education in Elementary Schools	3
ES 270	Cooperative Games	1
	Total Required	13

Students who complete the requirements above and hold a current First Aid/CPR certification qualify for a Certificate of Proficiency in Recreational Leadership-Outdoor Programs. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

## COMMUNICATION (Major Code: 56004)

This degree program is designed to provide the student with a broad base of communication classes that will provide training for entry into occupations in which verbal skills are important. Major requirements for the four-year degree in Communication vary from institution to institution. Students should consult the catalog of the transfer institution for specific requirements.

### CAREER OPPORTUNITIES

Advertising Assistant  
Announcer  
Arts Administrator  
College Professor  
Communication Consultant  
Journalist  
Lawyer  
Lobbyist  
Narrator  
Personnel Trainer  
Politician  
Proofreader  
Public Relations Assistant  
Researcher  
Sales Manager  
Teacher/Instructor

### Associate in Arts Degree Requirements:

Course	Title	Units
COMM 110	Introduction to Mass Communication	3
COMM 120	Interpersonal Communication	3
COMM 122	Public Speaking	3
COMM 123	Advanced Public Speaking	3
COMM 145	Argumentation	3
		15

### Select three (3) courses from the following:

COMM 124	Intercultural Communication	3
COMM 128*	Global Communication	3
COMM 135	Fundamentals of Oral Interpretation	3
COMM 136	Readers Theatre	3
COMM 137	Small Group Communication	3
COMM 144*	Interracial Communication	3
COMM 240A	Intercollegiate Forensics	3
COMM 240B	Intercollegiate Forensics	3
COMM 240C	Intercollegiate Forensics	3
COMM 240D	Intercollegiate Forensics	3
		9
	Total Required	24
	Plus General Education Requirements	

\*Offered at Grossmont College

## COMPUTATIONAL SCIENCE

(Major Code: 53130)

To meet the needs of the successful computer science, computational science or applied mathematics graduate, this degree program integrates the study of mathematical and computer sciences and prepares the student for immediate entry into a vocational field related to computer programming and/or further study in computer science, computational science or applied mathematics.

### CAREER OPPORTUNITIES

\*Actuary  
\*Computational Scientist  
\*Computer Engineer  
\*Mathematician  
\*Programmer Analyst  
Semiconductor Technician  
\*Software Engineer  
Software Technician  
\*Statistician  
†Systems Analyst  
\*Systems Engineer  
Technical Support Representative  
\*Bachelor Degree or higher required  
†Bachelor Degree normally recommended

### Associate in Science Degree Requirements:

Course	Title	Units
CS 182	Introduction to Java Programming	4
CS 282	Intermediate Java Programming and Fundamental Data Structures	4
CS 289	Computer Organization and Systems Programming	4
MATH 180	Analytic Geometry and Calculus I	5
MATH 245	Discrete Mathematics	3
MATH 280	Analytic Geometry and Calculus II	4
MATH 284	Linear Algebra	3
		27

### Select one (1) of the following:

MATH 150	Introduction to Computer Programming with FORTRAN	3
MATH 160	Elementary Statistics	3
MATH 281	Intermediate Calculus	4
		3-4

### Select one (1) of the following sequences:

BIO 130*	General Biology I	3
BIO 131*	General Biology I Laboratory	1
BIO 210	Biology II	4
<b>or</b>		
CHEM 141	General Chemistry I	5
CHEM 142	General Chemistry II	5
<b>or</b>		
PHYC 190	Mechanics and Heat	5
PHYC 200	Electricity and Magnetism	5
PHYC 210	Wave Motion and Modern Physics	5
		8-15
	Total Required	38-46
	Plus General Education Requirements	

\*BIO 220 and 221 may be substituted for BIO 130 and 131

### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Computational Science. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

# COMPUTER AND INFORMATION SCIENCE

**Students who wish to enroll in Microsoft applications (Word, Excel, PowerPoint) should refer to Business Office Technology.**

## CAREER OPPORTUNITIES

- Communications Specialist
- Computer Game Programmer
- Computer Graphics Designer
- Computer Hardware Specialist
- Computer Help Desk Technician
- Computer Maintenance Technician
- Computer Software Technician
- \*Computer Systems Engineer
- \*Computing Analyst
- Cyber Café Owner
- \*Database Manager
- GIS (Geographic Information Systems) Specialist
- Information Specialist
- \*Information Systems Programmer
- LAN/WAN Manager
- Manufacturer's Representative
- Multimedia Designer
- \*Network Administrator
- \*Network Analyst
- Network Consultant
- Network Control Technician
- Network Training and Support Specialist
- \*Programmer Analyst
- Sales and Service
- \*Scientific Programmer
- Software Consultant
- \*Software Engineer/Designer
- \*Systems Analyst
- \*Systems Programmer
- Technical Support Representative
- \*Telecommunications Programmer
- \*Telecommunications Technician
- \*Telecommunications Technical Engineer
- Training Specialist
- Virtual Reality Developer
- Web Master
- Web Page Designer
- \*Bachelor Degree or higher required

## Course Equivalencies:

The following Cuyamaca and Grossmont College courses are considered similar enough to be treated as equivalent. No Modification of Major forms will be required for the departments to accept these courses from our sister campus.

<i>Cuyamaca Course</i>	<i>Similar Grossmont Course</i>	<i>Cuyamaca Course</i>	<i>Similar Grossmont Course</i>
BOT 120	.CSIS 120	CIS 191	.CSIS 113
BOT 120+121+122	.CSIS 173	CIS 201	.*CSIS 140
BOT 121	.CSIS 121	CIS 211	.CSIS 134
BOT 122	.CSIS 122	CIS 212	.CSIS 136
BOT 123	.CSIS 123	CIS 215	.CSIS 135
BOT 123+124+125	.CSIS 175	CIS 221	.CSIS 190
BOT 124	.CSIS 124	CIS 230	.CSIS 230
BOT 125	.CSIS 125	CIS 240	.CSIS 276
BOT 126	.CSIS 126	CIS 270	.CSIS 251
BOT 127	.CSIS 127	CIS 291	.CSIS 213
BOT 128	.CSIS 128	CS 119	.CSIS 119
BOT 129	.CSIS 129	CS 180	.CSIS 115
BOT 130	.CSIS 130	CS 181	.CSIS 296
BOT 131	.CSIS 131	CS 182	.CSIS 293
CIS 105	.CSIS 172	CS 280	.CSIS 155
CIS 110	.CSIS 110	CS 281	.CSIS 297
CIS 120	.CSIS 114	CS 282	.CSIS 294
CIS 140	.CSIS 174	CS 289	.CSIS 165
CIS 170A	.CSIS 151D	GD 217	.CSIS 217
CIS 190	.CSIS 112	GD 222	.CSIS 137

\*Does not satisfy prerequisite to CIS 202

## I. COMPUTER NETWORK ADMINISTRATION

(Major Code: 51134)

This degree program prepares students for careers in computer networking and related fields. Upon completion, students may find entry-level positions as network administrators, hardware technicians, data/voice/video cabling technicians, project managers, designers/estimators or as technical support personnel. Prepares students to work as team members in an information technology group which designs, evaluates, tests, installs and maintains corporate networks. Preparation for the following industry certifications: A+, Security+ and CCNA (Cisco Certified Network Associate).

### Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
CIS 120	Computer Maintenance and A+ Certification	3
CIS 121	Network Cabling Systems	3
CIS 140	Databases	3
CIS 190	Introduction to Windows Operating Systems	3
CIS 191	Introduction to UNIX Operating System	3
CIS 201	Cisco Networking Academy I	3
CIS 202	Cisco Networking Academy II	3
CIS 263	Fundamentals of Network Security	3
		24

### Select one (1) of the following:

CIS 292	UNIX Shell Programming	2
CS 119	Program Design and Development	3
CS 180ABCD	Introduction to Visual Basic Programming	4
CS 182	Introduction to Java Programming	4
		2-4

### Select three (3) of the following:

BUS 105	Contact Center and Help Desk Procedures	2.5
CIS 203	Cisco Networking Academy III	3
CIS 204	Cisco Networking Academy IV	3
CIS 205	Cisco Networking Academy V	3
CIS 212	Introduction to Dreamweaver	3
CIS 214	Web Server Management	3
CIS 240	Advanced Databases	3
CIS 262	Fundamentals of Wireless LANs	3
CIS 290	Windows System Administration	3
CIS 291	UNIX System Administration	3

8.5-9

Total Required 34.5-37  
Plus General Education Requirements

### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Computer Network Administration. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

## II. TELECOMMUNICATIONS NETWORKING TECHNOLOGY (Major Code: 51143)

This degree program prepares students with the technical and management skills necessary to enter careers in design, application, installation, management, operation and/or maintenance of computer and telecommunications networking systems including convergent voice, data and video communications over IP networks. Graduates will have specific strengths in the building, testing, operation and maintenance of computer and telecommunications networking systems.

### Associate in Science Degree Requirements:

Course	Title	Units
CIS 120	Computer Maintenance and A+ Certification	3
CIS 121	Network Cabling Systems	3
CIS 161	Fundamentals of Telecommunications	3
CIS 162	Network Diagramming Using MS Visio	1
CIS 190	Introduction to Windows Operating Systems	3
<b>or</b>		
CIS 191	Introduction to UNIX Operating System	3
CIS 201	Cisco Networking Academy I	3
CIS 202	Cisco Networking Academy II	3
CIS 261	Telecommunications and Convergence Technologies	3
CIS 262	Fundamentals of Wireless LANs	3
CIS 263	Fundamentals of Network Security	3
ENGR 270	Digital Systems	4
ET 110	Introduction to Basic Electronics	4
MATH 180	Analytic Geometry and Calculus I	5
		41

### Select one (1) of the following:

CS 119	Program Design and Development	3
CS 180ABCD	Introduction to Visual Basic Programming	4
CS 182	Introduction to Java Programming	4
		3-4
	Total Required	44-45
	Plus General Education Requirements	

## III. TELECOMMUNICATIONS NETWORKING TECHNICIAN (Major Code: 51144)

Certificate recipients will work in areas such as research, design, field service and technical support for telephone companies, low voltage cable installers, Internet service providers, cable and wireless communications companies, and communications equipment manufacturers.

### Certificate Requirements:

Course	Title	Units
CIS 120	Computer Maintenance and A+ Certification	3
CIS 121	Network Cabling Systems	3
CIS 161	Fundamentals of Telecommunications	3
CIS 162	Network Diagramming Using MS Visio	1
CIS 190	Introduction to Windows Operating Systems	3
<b>or</b>		
CIS 191	Introduction to UNIX Operating System	3
CIS 201	Cisco Networking Academy I	3
CIS 202	Cisco Networking Academy II	3
CIS 261	Telecommunications and Convergence Technologies	3
CIS 262	Fundamentals of Wireless LANs	3
CIS 263	Fundamentals of Network Security	3
ET 110	Introduction to Basic Electronics	4
		32

### Select one (1) of the following:

CS 119	Program Design and Development	3
CS 180ABCD	Introduction to Visual Basic Programming	4
CS 182	Introduction to Java Programming	4
		3-4
	Total Required	35-36

### Certificate of Achievement

Students who complete the requirements above qualify for a Certificate in Telecommunications Networking Technician. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**IV. WEB DEVELOPMENT (Major Code: 51139)**

This degree program provides students with practical experience creating websites and preparing them for entry-level positions as web designers, web programmers or web server administrators. The curriculum uses state of the art software and hardware typically found in the field of professional web development.

**Associate in Science Degree Requirements:**

Course	Title	Units
CIS 140	Databases	3
CIS 211	Web Markup Languages	3
CIS 212	Introduction to Dreamweaver	3
CIS 213	Advanced Dreamweaver	3
		12

**Select two (2) of the following:**

CIS 110	Principles of Information Systems	4
CIS 190	Introduction to Windows Operating Systems	3
CIS 191	Introduction to Unix Operating System	3
CIS 214	Web Server Management	3
CIS 290	Windows System Administration	3
		6-7

**Select two (2) of the following:**

CIS 215	JavaScript Programming	3
CIS 216	Active Server Pages	3
CIS 219	PHP/MySQL Dynamic Web-Based Applications	3
CS 119	Program Design and Development	3
CS 180ABCD	Introduction to Visual Basic Programming	4
		6-7

**Select three (3) of the following:**

CIS 221	Digital Video Editing and DVD Production	3
CIS 240	Advanced Databases	3
GD 126ABCD	Photoshop Digital Imaging	3
GD 210	Practical Digital Photography	2
GD 217	Web Graphics	3
GD 222	Flash Web Animation	3
		8-9
	Total Required	32-35
	Plus General Education Requirements	

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Web Development. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**CERTIFICATES OF PROFICIENCY:**

These certificates offer specific training either for entry-level positions or to augment related programs such as Computer Network Administration, Web Development, Business Office Technology or Graphic Design. The certificates are designed to demonstrate a relatively narrow expertise or skill area that may be used to attain a computer industry "niche" job.

Students who complete the requirements below qualify for a Certificate of Proficiency in that area of emphasis. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**I. CISCO SYSTEMS (Major Code: 57114)****Certificate Requirements:**

Course	Title	Units
CIS 201	Cisco Networking Academy I	3
CIS 202	Cisco Networking Academy II	3
CIS 203	Cisco Networking Academy III	3
CIS 204	Cisco Networking Academy IV	3
	Total Required	12

**II. COMPUTER PROGRAMMING (Major Code: 57115)****Certificate Requirements:**

Course	Title	Units
CS 180ABCD	Introduction to Visual Basic Programming	4
CS 182	Introduction to Java Programming	4
CS 280ABCD	Intermediate Visual Basic Programming	4
CS 282	Intermediate Java Programming and Fundamental Data Structures	4
	Total Required	16

**III. NETWORK SERVICING TECHNOLOGY**

(Major Code: 57117)

**Certificate Requirements:**

Course	Title	Units
CIS 120	Computer Maintenance and A+ Certification	3
CIS 121	Network Cabling Systems	3
CIS 201	Cisco Networking Academy I	3
CIS 202	Cisco Networking Academy II	3
		12

**Select one (1) of the following:**

CIS 190	Introduction to Windows Operating Systems	3
CIS 191	Introduction to UNIX Operating System	3
		3
	Total Required	15

**IV. OPERATING SYSTEMS** (Major Code: 57118)**Certificate Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
CIS 190	Introduction to Windows Operating Systems	3
CIS 191	Introduction to UNIX Operating System	3
CIS 290	Windows System Administration	3
CIS 291	UNIX System Administration	3
CIS 292	UNIX Shell Programming	2
	Total Required	14

**V. TELECOMMUNICATIONS SERVICING TECHNOLOGY** (Major Code: 57122)**Certificate Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
CIS 120	Computer Maintenance and A+ Certification	3
CIS 121	Network Cabling Systems	3
CIS 161	Fundamentals of Telecommunications	3
CIS 201	Cisco Networking Academy I	3
CIS 202	Cisco Networking Academy II	3
	Total Required	15

**VI. WEB DESIGN** (Major Code: 57119)**Certificate Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
CIS 211	Web Markup Languages	3
CIS 212	Introduction to Dreamweaver	3
CIS 213	Advanced Dreamweaver	3
		9

**Select two (2) of the following:**

CIS 215	JavaScript Programming	3
GD 126ABCD	Photoshop Digital Imaging	3
GD 210	Practical Digital Photography	2
GD 217	Web Graphics	3
GD 222	Flash Web Animation	3
		5-6
	Total Required	14-15

**VII. WEB PROGRAMMING** (Major Code: 57120)**Certificate Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
CIS 140	Databases	3
CIS 211	Web Markup Languages	3
		6

**Select three (3) of the following:**

CIS 215	JavaScript Programming	3
CIS 216	Active Server Pages	3
CIS 219	PHP/MySQL Dynamic Web-Based Applications	3
CIS 240	Advanced Databases	3
CS 119	Program Design and Development	3
<b>and</b>		
CS 119L	Program Design and Development Lab	1
		9-10
	Total Required	15-16

**VIII. WEB SERVER MANAGEMENT** (Major Code: 57121)**Certificate Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
CIS 191	Introduction to Unix Operating System	3
CIS 211	Web Markup Languages	3
CIS 290	Windows System Administration	3
		9

**Select one (1) of the following:**

CIS 125	Network+ Certification	3
CIS 201	Cisco Networking Academy I	3
		3

**Select one (1) of the following:**

CIS 215	JavaScript Programming	3
CIS 216	Active Server Pages	3
CIS 219	PHP/MySQL Dynamic Web-Based Applications	3
		3
	Total Required	15

## ELEMENTARY EDUCATION

(Major Code: 59504)

This degree program is designed to provide lower division preparation for transfer to San Diego State University as a Liberal Studies major. Students interested in transferring to another college or university should check the requirements of that institution.

Students who complete the program will receive an Associate Degree in Elementary Education and may request certification of lower division general education coursework required by the California State University system.

Because the program emphasizes a strong general education approach, it may be an appropriate major for a variety of career options. Students are encouraged to refer to the San Diego State University catalog and/or consult with an academic advisor before selecting the various options listed below.

### CAREER OPPORTUNITIES

- \*Administrator
  - Audiovisual Specialist
  - School Clerical Worker
- \*Counselor
- \*Educational Consultant
- \*Educational Psychologist
- \*Educational Therapist
- \*Educational Writer
  - Food Service
- \*Guidance Worker
- \*Librarian
  - Library Technician
- \*Social Psychologist
- \*Speech Pathologist/Audiologist
- \*Teacher
  - Teacher's Aide
  - Tutor
- \*Bachelor Degree or higher required

### Associate in Arts Degree Requirements:

Course	Title	Units
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### COMPOSITION, ORAL COMMUNICATION, AND LITERATURE

<b>1. Composition</b> (minimum 6 units)		
ENGL 120 <b>and</b>	College Composition and Reading	3
ENGL 124* <b>or</b>	Advanced Composition: Critical Reasoning and Writing	3
PHIL 125 <b>or</b>	Critical Thinking	3
PHIL 130	Logic	3
<b>2. Communication</b> (minimum 3 units)		
COMM 120	Interpersonal Communication	3
COMM 122	Public Speaking	3
<b>3. Literature</b> (minimum 3 units)		
ENGL 122	Introduction to Literature	3
ENGL 270	World Literature I	3
ENGL 271	World Literature II	3

### MATHEMATICS AND SCIENCES

<b>4. Mathematics</b> (minimum 7.5 units)		
MATH 125	Structure and Concepts of Elementary Mathematics I	3
MATH 126	Structure and Concepts of Elementary Mathematics II	3
MATH 128	Children's Mathematical Thinking	1.5

<b>5. Biological Sciences</b> (minimum 4 units)		
BIO 128 <b>or</b>	Principles of Biology for Future Educators	4
BIO 130 <b>and</b>	General Biology I	3
BIO 131	General Biology I Laboratory	1

<b>6. Physical Sciences</b> (minimum 3 units)		
GEOL 104	Earth Science	3

### SOCIAL SCIENCE AND HISTORY

<b>7. Global Perspective</b> (minimum 3 units)		
GEOG 106	World Regional Geography	3

<b>8. American Institutions</b> (minimum 6 units)		
HIST 108 <b>and</b>	Early American History	3
HIST 109	Modern American History	3
<i>For other options, see a counselor</i>		

<b>9. Civilizations</b> (minimum 3 units)		
HIST 100	Early World History	3

### VISUAL AND PERFORMING ARTS/HUMANITIES

<b>10. Music</b> (minimum 4 units)		
MUS 001	Rudiments of Music and Musicianship	4
MUS 118	Introduction to Music	4

<b>11. Art/Humanities</b> (minimum 3 units)		
ART 100	Art Appreciation	3

<b>12. Human Growth and Development</b> (choose one option):		
<u>Option I:</u>		
CD 125	Child Growth and Development	3
<u>Option II:</u>		
PSY 120 <b>and</b>	Introductory Psychology	3
PSY 165	Developmental Psychology	3

<b>13. General Education/Humanities</b> (choose one option):		
<u>Option I:</u> 3rd semester of a foreign language: FREN 220, SPAN 220, ARBC 220 or ASL 220.		

Option II: If 3rd or 4th year foreign language in high school has been completed, choose 3 units from RELG 120, 130 or PHIL 140.

Option III: If 3rd or 4th year foreign language in high school has been completed, choose 1st semester of a *different* foreign language (FREN 120, SPAN 120, ARBC 120 or ASL 120.)

<b>14. Additional Requirements</b> (minimum 6 units)		
ES 253	Physical Education in Elementary Schools	3
HED 120	Personal Health and Lifestyles	3
ES Activity**	(At least two courses)	2-3
Total Required		59.5-65.5

\*Preferred

\*\*To fulfill a major requirement, all courses, including Exercise Science (ES) activity courses, must be taken for a letter grade. Courses taken for Credit/No Credit will not fulfill major requirements.

## ENGINEERING

This degree program is designed to cover the first two years of a four-year program leading to the Bachelor's Degree in Engineering at most four-year colleges and universities. While the bachelor's degree is usually the minimum needed to practice as an engineer, the associate degree will permit an individual to find work in most engineering firms as an engineering aide. The certificate will permit an individual to work as an engineering technician.

### CAREER OPPORTUNITIES

- \* Aerospace Engineer
  - \* Agricultural Engineer
  - \* Architectural Engineer
  - \* Biomedical Engineer
  - \* CAD/CAM Engineer
  - \* Chemical Engineer
  - \* Civil Engineer
    - Civil Engineering Technician
  - \* Computer Engineer
  - \* Electrical Engineer
    - Electrical Engineering Technician
  - \* Environmental Engineer
  - \* Geological Engineer
  - \* Industrial Engineer
    - Industrial Engineering Technician
  - \* Manufacturing Engineer
  - \* Marine Engineer
  - \* Materials Engineer
  - \* Mechanical Engineer
    - Mechanical Engineering Technician
  - \* Mining Engineer
  - \* Nuclear Engineer
  - \* Petroleum Engineer
  - \* Structural Engineer
  - \* Systems Engineer
  - \* Robotics Engineer
- \* Bachelor's degree or higher required

### I. CIVIL ENGINEERING (Major Code: 53132)

#### Associate in Science Degree Requirements:

Course	Title	Units
CHEM 141	General Chemistry I	5
ENGR 100	Introduction to Engineering and Engineering Graphics	2
<b>or</b>		
CADD 115	Engineering Graphics	3
ENGR 119	Basic Engineering CAD	3
<b>or</b>		
CADD 120ABCD	Basic CAD	3
ENGR 120	Engineering Computer Applications	3
ENGR 200	Engineering Mechanics–Statics	3
ENGR 218	Plane Surveying	4
ENGR 220	Engineering Mechanics–Dynamics	3
ENGR 260	Engineering Materials	3
MATH 160	Elementary Statistics	3
MATH 180	Analytic Geometry and Calculus I	5
MATH 280	Analytic Geometry and Calculus II	4
MATH 281	Intermediate Calculus	4
MATH 285	Differential Equations	3
PHYC 190	Mechanics and Heat	5
PHYC 200	Electricity and Magnetism	5
Total Required		55-56
Plus General Education Requirements		

### II. CIVIL ENGINEERING (Major Code: 53133)

#### Certificate Requirements:

Course	Title	Units
CADD 127	Survey Drafting Technology	3
CHEM 141	General Chemistry I	5
ENGR 100	Introduction to Engineering and Engineering Graphics	2
<b>or</b>		
CADD 115	Engineering Graphics	3
ENGR 119	Basic Engineering CAD	3
<b>or</b>		
CADD 120ABCD	Basic CAD	3
ENGR 120	Engineering Computer Applications	3
ENGR 200	Engineering Mechanics–Statics	3
ENGR 218	Plane Surveying	4
ENGR 220	Engineering Mechanics–Dynamics	3
ENGR 260	Engineering Materials	3
MATH 180	Analytic Geometry and Calculus I	5
MATH 280	Analytic Geometry and Calculus II	4
PHYC 190	Mechanics and Heat	5
Total Required		43-44

#### CERTIFICATE OF ACHIEVEMENT

Students who complete the certificate requirements above qualify for a Certificate in Civil Engineering. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**III. ELECTRICAL AND COMPUTER ENGINEERING**

(Major Code: 53134)

**Associate in Science Degree Requirements:**

Course	Title	Units
CHEM 141	General Chemistry I	5
CS 181	Introduction to C++ Programming	4
<b>or</b>		
CS 182	Introduction to Java Programming	4
CS 281	Intermediate C++ Programming	4
<b>or</b>		
CS 282	Intermediate Java Programming and Fundamental Data Structures	4
ENGR 100	Introduction to Engineering and Engineering Graphics	2
<b>or</b>		
CADD 115	Engineering Graphics	3
ENGR 210	Electric Circuits	3
ENGR 270	Digital Systems	4
MATH 180	Analytic Geometry and Calculus I	5
MATH 280	Analytic Geometry and Calculus II	4
MATH 281	Intermediate Calculus	4
MATH 285	Differential Equations	3
PHYC 190	Mechanics and Heat	5
PHYC 200	Electricity and Magnetism	5
PHYC 210	Wave Motion and Modern Physics	5
<b>or</b>		
ENGR 200	Engineering Mechanics–Statics	3
<b>and</b>		
ENGR 220	Engineering Mechanics–Dynamics	3
Total Required		53-55
Plus General Education Requirements		

**IV. ELECTRICAL AND COMPUTER ENGINEERING**

(Major Code: 53135)

**Certificate Requirements:**

Course	Title	Units
CADD 126	Electronic Drafting	3
CS 181	Introduction to C++ Programming	4
<b>or</b>		
CS 182	Introduction to Java Programming	4
CS 281	Intermediate C++ Programming	4
<b>or</b>		
CS 282	Intermediate Java Programming and Functional Data Structures	4
ENGR 100	Introduction to Engineering and Engineering Graphics	2
<b>or</b>		
CADD 115	Engineering Graphics	3
ENGR 119	Basic Engineering CAD	3
<b>or</b>		
CADD 120ABCD	Basic CAD	3
ENGR 210	Electric Circuits	3
ENGR 270	Digital Systems	4
ET 110	Introduction to Basic Electronics	4
MATH 180	Analytic Geometry and Calculus I	5
MATH 280	Analytic Geometry and Calculus II	4
PHYC 190	Mechanics and Heat	5
PHYC 200	Electricity and Magnetism	5
Total Required		46-47

**CERTIFICATE OF ACHIEVEMENT**

Students who complete the certificate requirements above qualify for a Certificate in Electrical and Computer Engineering. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**V. MECHANICAL AND AEROSPACE ENGINEERING**

(Major Code: 53136)

**Associate in Science Degree Requirements:**

Course	Title	Units
CHEM 141	General Chemistry I	5
ENGR 100	Introduction to Engineering and Engineering Graphics	2
<b>or</b>		
CADD 115	Engineering Graphics	3
ENGR 119	Basic Engineering CAD	3
<b>or</b>		
CADD 120ABCD	Basic CAD	3
ENGR 120	Engineering Computer Applications	3
ENGR 200	Engineering Mechanics–Statics	3
ENGR 210	Electric Circuits	3
ENGR 220	Engineering Mechanics–Dynamics	3
ENGR 260	Engineering Materials	3
MATH 180	Analytic Geometry and Calculus I	5
MATH 280	Analytic Geometry and Calculus II	4
MATH 281	Intermediate Calculus	4
MATH 285	Differential Equations	3
PHYC 190	Mechanics and Heat	5
PHYC 200	Electricity and Magnetism	5
PHYC 210	Wave Motion and Modern Physics	5
Total Required		56-57
Plus General Education Requirements		

**VI. MECHANICAL AND AEROSPACE ENGINEERING**

(Major Code: 53137)

**Certificate Requirements:**

Course	Title	Units
CHEM 141	General Chemistry I	5
ENGR 100	Introduction to Engineering and Engineering Graphics	2
<b>or</b>		
CADD 115	Engineering Graphics	3
ENGR 119	Basic Engineering CAD	3
<b>or</b>		
CADD 120ABCD	Basic CAD	3
ENGR 120	Engineering Computer Applications	3
ENGR 125	3D Parametric Solid Modeling	3
<b>or</b>		
CADD 125	3D Parametric Solid Modeling	3
ENGR 200	Engineering Mechanics–Statics	3
ENGR 220	Engineering Mechanics–Dynamics	3
ENGR 260	Engineering Materials	3
MATH 180	Analytic Geometry and Calculus I	5
MATH 280	Analytic Geometry and Calculus II	4
PHYC 190	Mechanics and Heat	5
Total Required		39-40

**CERTIFICATE OF ACHIEVEMENT**

Students who complete the certificate requirements above qualify for a Certificate in Mechanical and Aerospace Engineering. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

## ENGLISH (Major Code: 51037)

This major fulfills lower division requirements at most four-year colleges and universities and thus provides a broad-based foundation for transfer. For particular requirements, transfer students should consult the appropriate four-year college or university catalog.

The study of English gives lifelong pleasure to students in exploring and understanding how language works to express human ideas and feelings. English course work also helps people succeed in such diverse fields as teaching, writing, editing, journalism, advertising, public relations, law, film and video work, politics, business and medicine.

### CAREER OPPORTUNITIES

- Actor/Actress
- \* College English Professor
- \* Copywriter
- \* Editor
  - Fiction/Nonfiction Writer
  - Foreign Service Officer
- †Freelance Writer
- \* Lawyer
- \* Librarian
- \* Media Planner
- \* Museum Curator
- †Newscaster
- †Playwright
- \* Publisher
- \* Reporter
- \* Researcher
- \* Secondary School Teacher
  
- \* Bachelor Degree or higher required
- †Bachelor Degree normally recommended

### Associate in Arts Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
ENGL 120	College Composition and Reading	3
ENGL 122	Introduction to Literature	3
ENGL 124	Advanced Composition: Critical Reasoning and Writing	3
ENGL 126	Creative Writing	3
ENGL 270	World Literature I	3
ENGL 271	World Literature II	3
		18

### Select two (2) of the following:

ENGL 221	British Literature I	3
ENGL 222	British Literature II	3
ENGL 231	American Literature I	3
ENGL 232	American Literature II	3
ENGL 275	Literary Period	3
ENGL 276	Major Author	3
ENGL 277	Literary Theme	3
		6

### Select one (1) of the following:

ENGL 201	Introduction to Images of Women in Literature	3
ENGL 202	Introduction to Film as Literature	3
ENGL 207	Romantic Fiction	3
ENGL 214	Masterpieces of Drama	3
ENGL 217	Fantasy and Science Fiction Survey	3
		3

### Select one (1) of the following:

ANTH 120	Cultural Anthropology	3
HIST 100	Early World History	3
HIST 101	Modern World History	3
HIST 105	Early Western Civilization	3
HIST 106	Modern Western Civilization	3
HUM 120	European Humanities	3
HUM 140	American Humanities	3
HUM 155	Mythology	3
PHIL 115	History of Philosophy I	3
PHIL 117	History of Philosophy II	3
RELG 215	Introduction to the New Testament	3
		3
	Total Required	30
	Plus General Education Requirements	

### Recommended Electives:

Students planning to transfer to four-year institutions to complete a bachelor's degree in English are STRONGLY urged to take the following courses, depending on the requirements at those schools:

Two (2) sequential semesters of a single foreign language	10
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### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in English. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

## ENTREPRENEURSHIP–SMALL BUSINESS MANAGEMENT

(Major Code: 50047)

This curriculum provides a course of study for students who are interested in working toward an associate degree or certificate while developing an appreciation and understanding of the functional areas within the small business environment. This degree program provides a working knowledge of small business operations to both the prospective business person as well as the owner/manager of an existing business, and is co-sponsored by the Small Business Administration.

### CAREER OPPORTUNITIES

Administrative Assistant  
Assistant Manager  
Bookkeeper  
Small Business Owner/Manager

### Associate in Science Degree Requirements:

Course	Title	Units
BUS 106	Providing Quality Service	2
BUS 109	Elementary Accounting	3
<b>or</b>		
BUS 120	Financial Accounting	4
BUS 110	Introduction to Business	3
BUS 111	Entrepreneurship: Starting and Developing a Business	3
BUS 125	Business Law: Legal Environment of Business	3
BUS 128	Business Communication	3
		17-18

### Select two (2) of the following:

BUS 112	Entrepreneurship: Successful Marketing	3
BUS 141	Entrepreneurship: Managing a New Business	3
BUS 146	Marketing	3
BUS 156	Principles of Management	3
BUS 176	Computerized Accounting Applications	2
CIS 212	Introduction to Dreamweaver	3
		5-6

### Select at least three (3) units from the following:

BOT 095	Keyboarding Skill Reinforcement	1
BOT 096	Computer Basics for the Office	1
BOT 097	Windows Basics for the Office	1
BOT 100	Basic Keyboarding	1
BOT 101AB	Keyboarding/Document Processing	1.5
BOT 102AB	Intermediate Keyboarding/Document Processing I-II	3
BOT 114	Essential Word	1
BOT 115	Essential Excel	1
BOT 116	Essential Access	1
BOT 117	Essential PowerPoint	1
CIS 105	Introduction to Computing	3
CIS 110	Principles of Information Systems	4
		3
Total Required		25-27
Plus General Education Requirements		

### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Entrepreneurship–Small Business Management. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

## ENVIRONMENTAL HEALTH AND SAFETY TECHNOLOGY

This degree and certificate program provides entry level skills as well as upgrading/refining existing skills of individuals employed in the field of Environmental Technology. The curriculum prepares students for transfer to four-year institutions in an Environmental Technology or related major. Courses are designed for students pursuing careers in Environmental Management and Occupational Safety and Health with an emphasis on training, regulatory compliance and program development, consulting, pollution prevention, recycling, remediation, conservation and program management.

### CAREER OPPORTUNITIES

\*Air Quality Engineer  
Asbestos Materials Building Remover  
Associate Toxic Waste Specialist  
Chemical Handler  
\*Environmental Engineer  
Environmental Hazardous Material Technician  
Environmental Health and Safety Specialist  
\*Environmental Journalist  
\*Environmental Lawyer  
Environmental Manager  
\*Environmental Protection Specialist  
Environmental Research – Test Technician  
Game or Fishery Technician  
\*Geologist  
Health and Safety Technician  
Industrial Hygiene Technician  
Land Use and Planning Technician  
Mold Remediation Technician  
Occupational Health and Safety Technician  
Pollution Control Technician  
Recycling Coordinator  
Risk Management Officer  
Risk Management Technician  
Safety Officer  
Safety Specialist  
\*Soils Analyst  
Solar Energy Installer  
Wastewater Treatment Operator  
Water Treatment Operator  
\*Bachelor Degree or higher required

**I. ENVIRONMENTAL MANAGEMENT**

(Major Code: 51046)

**Associate in Science Degree Requirements:**

Course	Title	Units
BIO 112	Contemporary Issues in Environmental Resources	3
BIO 130	General Biology I	3
BIO 131	General Biology I Laboratory	1
CHEM 115	Fundamentals of Chemistry	4
ENVT 100	Introduction to Environmental and Occupational Safety and Health (OSH) Technology	4
ENVT 110	Pollution Prevention	3
ENVT 150	Hazardous Waste Management Applications	4
ENVT 200	Hazardous Materials Management (HMM) Applications	4
ENVT 210	Industrial Wastewater and Stormwater Management	4
ENVT 215	Air Quality Management	3
ENVT 230	Safety and Emergency Response	4
ENVT 240*	Cooperative Work Experience	1-4
		<u>38-41</u>

**Select one (1) of the following:**

CIS 110	Principles of Information Systems	4
COMM 122	Public Speaking	3
SPAN 120	Spanish I	5
		<u>3-5</u>
	Total Required	41-46
	Plus General Education Requirements	

\*Student must complete ENVT 100 to be eligible for this course

**II. ENVIRONMENTAL TECHNICIAN**

(Major Code: 51047)

**Certificate Requirements:**

Course	Title	Units
ENVT 100	Introduction to Environmental and Occupational Safety and Health (OSH) Technology	4
ENVT 110	Pollution Prevention	3
ENVT 150	Hazardous Waste Management Applications	4
ENVT 200	Hazardous Materials Management (HMM) Applications	4
ENVT 210	Industrial Wastewater and Stormwater Management	4
ENVT 215	Air Quality Management	3
ENVT 230	Safety and Emergency Response	4
ENVT 240*	Cooperative Work Experience	1-3
	Total Required	<u>27-29</u>

\*Student must complete ENVT 100 to be eligible for this course

**Certificate of Achievement**

Students who complete the requirements above qualify for a Certificate in Environmental Technician. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**III. OCCUPATIONAL SAFETY AND HEALTH****(OSH) MANAGEMENT** (Major Code: 51048)**Associate in Science Degree Requirements:**

Course	Title	Units
BIO 130	General Biology I	3
BIO 131	General Biology I Laboratory	1
CHEM 115	Fundamentals of Chemistry	4
ENVT 100	Introduction to Environmental and Occupational Safety and Health (OSH) Technology	4
ENVT 130	Environmental/Occupational Health Effects of Hazardous Materials	3
ENVT 135	General Industry Safety Standards	3
ENVT 145	Construction Safety Standards	3
ENVT 200	Hazardous Materials Management (HMM) Applications	4
ENVT 201	Introduction to Industrial Hygiene and Occupational Health	4
ENVT 205	Safety and Risk Management Administration	4
ENVT 230	Safety and Emergency Response	4
ENVT 240*	Cooperative Work Experience	1-4
		<u>38-41</u>

**Select one (1) of the following:**

CIS 110	Principles of Information Systems	4
COMM 122	Public Speaking	3
SPAN 120	Spanish I	5
		<u>3-5</u>
	Total Required	41-46
	Plus General Education Requirements	

\*Student must complete ENVT 100 to be eligible for this course

**IV. OCCUPATIONAL SAFETY AND HEALTH (OSH)****TECHNICIAN** (Major Code: 51049)**Certificate Requirements:**

Course	Title	Units
ENVT 100	Introduction to Environmental and Occupational Safety and Health (OSH) Technology	4
ENVT 130	Environmental/Occupational Health Effects of Hazardous Materials	3
ENVT 135	General Industry Safety Standards	3
ENVT 200	Hazardous Materials Management (HMM) Applications	4
ENVT 201	Introduction to Industrial Hygiene and Occupational Health	4
ENVT 240*	Cooperative Work Experience	1-4
		<u>19-22</u>

**Select two (2) of the following:**

ENVT 145	Construction Safety Standards	3
ENVT 205	Safety and Risk Management Administration	4
ENVT 230	Safety and Emergency Response	4
		<u>7-8</u>
	Total Required	26-30

\*Student must complete ENVT 100 to be eligible for this course

**Certificate of Achievement**

Students who complete the requirements above qualify for a Certificate in Occupational Safety and Health (OSH) Technician. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

## EXERCISE SCIENCE (Major Code: 52001)

This degree program is designed to prepare students for a variety of careers including education, physical therapy, coaching, personal training and other allied health professions by providing classes oriented toward fitness, wellness and health promotion throughout the lifespan. The major also provides preparation for transfer to a four-year college in physical education, exercise physiology, kinesiology, nutrition or athletic training, as well as teacher credentialing programs.

### CAREER OPPORTUNITIES

- Aerobics Instructor
- Athletics Coach
- \*Athletics Trainer
- \*Cardiovascular Rehabilitation
- \*College Professor
- \*Elementary School Teacher
- \*Exercise Physiologist
- \*Health Club Manager
- Personal Trainer
- \*Physical Therapist/ Assistant
- \*Registered Dietician
- \*Secondary School Teacher
- \*Teaching

\*Bachelor Degree or higher required

### Associate in Science Degree Requirements:

Course	Title	Units
BIO 130	General Biology I	3
BIO 131	General Biology I Laboratory	1
BIO 140	Human Anatomy	5
CHEM 115	Fundamentals of Chemistry	4
COMM 122	Public Speaking	3
ES 014ABC	Body Building	1.5
ES 250	Introduction to Physical Education	2
ES 255	Care and Prevention of Athletic Injuries	3
HED 158	Nutrition for Athletes	3
PSY 120	Introductory Psychology	3
SOC 120	Introductory Sociology	3
		31.5

### Select one (1) of the following:

BIO 215	Statistics for Life Sciences	3
MATH 160	Elementary Statistics	3
PSY 215	Statistics for the Behavioral Sciences	3
		3

### Select two (2) of the following (fulfills the activity requirement for the Associate Degree):

ES 001	Adapted Physical Exercise	1
ES 009	Aerobic Dance Exercise	1
ES 019ABC	Physical Fitness	1.5
ES 060ABC	Badminton	1
ES 076ABC	Tennis	1
ES 125ABC	Golf	1
ES 155ABC	Basketball	1
ES 170ABC	Soccer	1
ES 171ABC	Softball	1
ES 175ABC	Volleyball	1
		2-2.5
Total Required		36.5-37
Plus General Education Requirements		

### CERTIFICATE OF PROFICIENCY:

#### RECREATIONAL LEADERSHIP–SCHOOL-BASED PROGRAMS (Major Code: 57124)

This certificate offers specific training for an entry-level position or for advancement in child care and outdoor programs for children and families. It is designed to demonstrate an area of expertise that may be used to attain employment in areas of school-based recreation and fitness programs.

### CAREER OPPORTUNITIES

The certificate is designed to prepare an individual for a position in an elementary or middle school, YMCA, recreation center, day or residential camp, or after school day care program. This is great “stepping-stone” training for anyone who wants to major in Exercise Science, Recreation Elementary Education or Child Development, providing the student with the expertise to enter the entry-level job market with knowledge of sound principles of fitness and developmentally appropriate recreation.

### Certificate Requirements:

Course	Title	Units
CD 125	Child Growth and Development	3
CD 157	Food and Nutrition for Children	3
ES 253	Physical Education in Elementary Schools	3
ES 270	Cooperative Games	1
ES 271	Fitness Walking with Children	1
ES 272	Issues in Childhood Obesity	1
ES 273	Field Experience in School-Based Recreational Leadership	1
Total Required		13

Students who complete the requirements above and hold a current First Aid/CPR certification qualify for a Certificate of Proficiency in Recreational Leadership–School-Based Programs. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

## GENERAL MAJOR

The primary purpose of the General Major is to meet the needs of students who have not decided on a specific career path or who wish to transfer to a four-year institution as an undeclared major while earning an associate degree. Outlined below are the requirements for the General Major degrees in both the Associate in Arts and Associate in Science.

### GENERAL MAJOR FOR THE ASSOCIATE IN ARTS DEGREE (Major Code: 59301)

The program of study consists of 18 or more units in a single discipline or related discipline designed to meet the student's individual needs. Courses in which a "CR" has been earned may not be applied toward the above requirements. Students should consult a counselor for aid in developing this program of study.

The General Major might consist of courses in preparation for transfer to a specific major in another institution or groupings of general, occupational and technical courses which would best prepare students for employment.

### GENERAL MAJOR FOR THE ASSOCIATE IN SCIENCE DEGREE (Major Code: 59302)

The program of study consists of 18 or more units in MATH 103 or higher and/or natural science courses. Courses in which a "CR" has been earned may not be applied toward the above requirement.

## GRAPHIC DESIGN (Major Code: 50127)

Students in this degree program develop entry level skills in design aesthetics, typography, illustration, digital imaging, page layout, web design and professional business practices. Courses provide training with state of the art computer hardware and software used in the graphic design profession. Students develop a professional portfolio for job interviews.

**Designed for a two-year degree or certificate only. Students interested in pursuing a bachelor's degree in Graphic Design should refer to "Art-Graphic Design (Transfer)." Students should also consult the catalog of the transfer institution for specific requirements.**

### CAREER OPPORTUNITIES

Graphic Designer  
Illustrator  
Web Page Designer  
Technical Illustrator  
Package Designer  
Display Designer  
Cartoonist  
Desktop Publisher  
\*Advertising Director  
\*Art Director  
\*Marketing Director  
Multimedia Designer

\*Bachelor Degree or higher required

### Associate in Science Degree Requirements:

Course	Title	Units
ART 120	Two-Dimensional Design	3
ART 124	Drawing I	3
CIS 212	Introduction to Dreamweaver	3
GD 105	Fundamentals of Digital Media	3
GD 110	Beginning Graphic Design	3
GD 125	Typography	3
GD 126ABCD	Photoshop Digital Imaging	3
GD 129	Page Layout	3
GD 130	Professional Business Practices	3
GD 225ABCD	Digital Illustration	3
		<hr/> 30

### Select two (2) of the following:

GD 210	Practical Digital Photography	2
GD 211	Commercial Digital Photography	3
GD 217	Web Graphics	3
GD 222	Flash Web Animation	3
		<hr/> 5-6
	Total Required	35-36
	Plus General Education Requirements	

### Recommended Electives:

ART 129\*, 141, 150\*; BUS 110; GD 230

\*Offered at Grossmont College

### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Graphic Design. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**CERTIFICATES OF PROFICIENCY:**

These certificates offer specific training either for an entry-level position or to augment related programs such as Web Development or Graphic Design. The certificates are designed to demonstrate a relatively narrow expertise or skill area that may be used to attain a graphic design "niche" job.

Students who complete the requirements below qualify for a Certificate of Proficiency in that area of emphasis. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**I. DIGITAL PHOTOGRAPHY (Major Code: 57125)****Certificate Requirements:**

Course	Title	Units
GD 110	Beginning Graphic Design	3
GD 126ABCD	Photoshop Digital Imaging	3
GD 130	Professional Business Practices	3
GD 210	Practical Digital Photography	2
GD 211	Commercial Digital Photography	3
	Total Required	14

**II. WEB GRAPHICS (Major Code: 57126)****Certificate Requirements:**

Course	Title	Units
CIS 212	Introduction to Dreamweaver	3
GD 110	Beginning Graphic Design	3
GD 126ABCD	Photoshop Digital Imaging	3
GD 210	Practical Digital Photography	2
GD 217	Web Graphics	3
GD 222	Flash Web Animation	3
	Total Required	17

**HISTORY (Major Code: 54060)**

This major prepares students to transfer to four-year institutions for continued study in the field of history. The degree program fulfills the lower division requirements for most majors in the History Department at San Diego State University and is typical of requirements at other four-year schools. For special requirements, transfer students should consult the catalog of the college or university of their choice. History classes provide useful background for students in such fields as history, education, political science and law.

**CAREER OPPORTUNITIES**

\*Anthropologist  
 \*Archaeologist  
 Attorney  
 \*Cartographer  
 \*College History Professor  
 \*Historian  
 \*Intelligence Analyst  
 \*Journalist  
 Legislative Assistant  
 Politician  
 \*Research Historian  
 \*Secondary School Teacher  
 Travel Advisor  
 Technical Writer  
 \*Textbook Writer/Editor

\*Bachelor Degree or higher required

**Associate in Arts Degree Requirements:**

**Select twelve (12) units from any two (2) of the following sequences:**

Course	Title	Units
HIST 100	Early World History	
HIST 101	Modern World History	6
HIST 105	Early Western Civilization	
HIST 106	Modern Western Civilization	6
HIST 108	Early American History	
HIST 109	Modern American History	6
		12

**Select six (6) units from the following:**

HIST 118	U.S. History: Chicano/Chicana Perspectives I	3
HIST 119	U.S. History: Chicano/Chicana Perspectives II	3
HIST 122	Women in Early American History	3
HIST 123	Women in Modern American History	3
HIST 124	History of California	3
HIST 180	U.S. History: Black Perspectives I	3
HIST 181	U.S. History: Black Perspectives II	3
HIST 210	Women in Western Civilization	3
		6

**Foreign Language Requirement:**

Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. NOTE: One year of a high school foreign language is equivalent to one semester of a college foreign language.

Total Required 33  
 Plus General Education Requirements

**Recommended Electives:**

ART 140, 141; ENGL 221, 222, 231, 232; GEOG 130; POSC 121, 124, 140; RELG 120, 130

## MANAGEMENT (Major Code: 53047)

This degree program is designed to provide students with the skills necessary to be successful as a manager in today's demanding organizational climate. The curriculum is beneficial to men or women who aspire to a mid-level or higher management position in any type of organization including business, government and service organizations.

### CAREER OPPORTUNITIES

- \*Bank Officer
- Claim Adjuster
- †Computer Operations Supervisor
- \*Director, Research and Development
- Employment Interviewer
- Financial Planner
- \*Hospital Administrator
- Import-Export Agent
- Management Trainee
- †Management Consultant
- Office Manager
- Stock Broker
- \*Teacher, College

\*Bachelor Degree or higher required

†Bachelor Degree normally recommended

### Associate in Science Degree Requirements:

Course	Title	Units
BUS 115	Human Relations in Business	3
BUS 120	Financial Accounting	4
BUS 125	Business Law: Legal Environment of Business	3
BUS 128	Business Communication	3
BUS 155	Human Resources Management	3
BUS 156	Principles of Management	3
COMM 122	Public Speaking	3
		22

### Select two (2) of the following:

BOT 123-125	Comprehensive Excel Levels I-III	3
BUS 176	Computerized Accounting Applications	2
CIS 105	Introduction to Computing	3
CIS 110	Principles of Information Systems	4
		5-7

### Select one (1) of the following:

BUS 110	Introduction to Business	3
BUS 121	Managerial Accounting	4
BUS 146	Marketing	3
BUS 154	Diversity in the Workplace	3
BUS 157	Principles of Leadership	3
BUS 159	Management Internship	3
BUS 195	Family Income Management	3
ECON 120	Principles of Macroeconomics	3
		3-4

Total Required 30-33  
Plus General Education Requirements

### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Management. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

## MATHEMATICS (Major Code: 50035)

Since jobs requiring mathematical skills such as data analysis, problem solving, pattern recognition, statistics, and probability are growing at nearly double the rate of overall employment, the mathematics major may benefit both educationally and economically from developing and pursuing an interest in mathematics. Mathematical skills and statistical methods are employed regularly by researchers testing hypotheses, by workers applying quality control in manufacturing, and by informed citizens who must evaluate information from the media in tabular, graphical, and report form in order to reach solutions. This major offers a foundation in these necessary skills. The emphasis is to prepare students for transfer to a four-year institution and/or for career preparation in a vocational or professional field.

### CAREER OPPORTUNITIES

- \*Accountant
- \*Actuary
- Air Traffic Controller
- \*Auditor
- †Bank Officer
- \*Budget Analyst
- Computer Operator
- \*Computer Programmer
- †Cost Estimator
- †Credit and Collection Manager
- Data Processing Manager
- \*Economist
- \*Engineer
- \*Financial Planner
- Insurance Agent/Broker
- Insurance Claim Examiner
- Laboratory Examiner
- Loan Officer
- \*Market Research Analyst
- \*Mathematician
- \*Mathematics Teacher
- \*Securities Trader
- Semiconductor Technician
- \*Statistician
- \*Systems Analyst
- Surveyor

\*Bachelor Degree or higher required

†Bachelor Degree normally recommended

### Associate in Science Degree Requirements:

Course	Title	Units
MATH 180	Analytic Geometry and Calculus I	5
MATH 280	Analytic Geometry and Calculus II	4
MATH 281	Intermediate Calculus	4
MATH 284	Linear Algebra	3
		16

### Select one (1) of the following:

MATH 245	Discrete Math	3
MATH 285	Differential Equations	3
		3

### Select one (1) of the following:

ENGR 120	Engineering Computer Applications	3
MATH 160	Elementary Statistics	3
PHYC 190	Mechanics and Heat	5
PHYC 200	Electricity and Magnetism	5
PHYC 210	Wave Motion and Modern Physics	5
		3-5

Total Required 22-24  
Plus General Education Requirements

(continued on next page)

**Recommended Electives:**

Students planning to transfer to a four-year institution to complete a bachelor's degree in Pure Mathematics, Applied Mathematics, or Statistics should emphasize in an applied discipline such as Accounting, Chemistry, Computer Science, Economics, Engineering, or Physics. In particular, transfer students are STRONGLY urged to elect the following Physics courses: PHYC 190, 200, 210. Students preparing for a vocational or professional career are strongly encouraged to emphasize in a vocational/professional discipline such as Business, Computer and Information Science, CADD Technology, Electronics Technology, or Environmental Technology.

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Mathematics. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**Select four (4) units from the following:**

MUS 108	Instrumental Music Ensemble	1
MUS 109	Instrumental Music Ensemble	1
MUS 136	Chamber Singers	1
MUS 137	Chamber Singers	1
MUS 156	Jazz Ensemble	1
MUS 157	Jazz Ensemble	1
MUS 158	Chorus	1
MUS 159	Chorus	1
MUS 208	Instrumental Music Ensemble	1
MUS 209	Instrumental Music Ensemble	1
MUS 236	Chamber Singers	1
MUS 237	Chamber Singers	1
MUS 256	Jazz Ensemble	1
MUS 257	Jazz Ensemble	1
MUS 258	Chorus	1
MUS 259	Chorus	1
	Total Required	38
	Plus General Education Requirements	

**MUSIC EDUCATION** (Major Code: 59404)

This degree program offers lower division preparation for students who want to pursue a bachelor's degree in music education and a California teaching credential in music. The primary emphasis is to prepare students for transfer to four-year music education programs.

**CAREER OPPORTUNITIES**

- \*Arranger
- \*Choral Director
- \*Composer
- \*Conductor
- Copyist
- \*Critic
- Instrumentalist
- \*Music Instructor/Professor
- \*Music Librarian
- \*Music Therapist
- Music Typographer
- Performer, Vocalist
- Radio Programmer
- Recording Company Representative
- \*Teacher
- \*Bachelor Degree or higher required

**Associate in Arts Degree Requirements:**

Course	Title	Units
MUS 105	Music Theory and Practice I	4
MUS 106	Music Theory and Practice II	4
MUS 110	Great Music Listening	3
MUS 116	Introduction to World Music	3
MUS 126	Class Guitar I	2
MUS 132	Class Piano I	3
MUS 133	Class Piano II	3
MUS 170	Class Voice	2
MUS 190	Performance Studies	1
MUS 191	Performance Studies	1
MUS 232	Class Piano III	3
MUS 233	Class Piano IV	3
MUS 290	Performance Studies	1
MUS 291	Performance Studies	1
		<hr/> 34

**ORNAMENTAL HORTICULTURE**

This degree program provides for entry level skills, upgrading of existing skills, and preparation for further training. Designed for students interested in careers in nursery and greenhouse management, landscape design and construction, grounds management, retail nursery operations, irrigation system design, installation and maintenance of interior plantscaping, arboriculture and other related fields. Emphasis is on hands-on experience with student participation in labs. Students learn modern horticultural methods and procedures as well as the use of tools and equipment common to the field.

**CAREER OPPORTUNITIES**

- †Agricultural Inspector
- \*Agricultural Researcher
- †Arboretum/Park Director
- Arboriculture Technician
- Botanical Illustrator
- †County/State Agricultural Advisor
- \*Environmental Designer
- Floral Designer
- Flower Shop Manager
- Golf Course Superintendent
- Golf Course Worker
- Greenhouse Manager
- Grounds Maintenance Manager
- Grower/Production Manager
- †Horticultural Journalist
- Irrigation Consultant
- \*Landscape Architect
- Landscape Design
- Landscape Technician
- Nursery/Garden Center Manager
- †Park Planner/Manager
- Plant Breeder/Propagator
- Sports Field Manager
- Turf Manager
- Water Auditor
- †Water Conservationist
- \*Bachelor Degree or higher required.
- †Bachelor Degree normally recommended.

**I. ARBORICULTURE (Major Code: 59515)**

This major encompasses urban forestry, professional tree care and tree trimming. Students will learn care and pruning of landscape trees, palms and related plants as well as common fruit trees. Coursework includes skill development in tree climbing and pruning techniques, basic tree maintenance and principles of urban forestry. Graduates are employed by private tree care companies, public agencies or may be self-employed.

**Associate in Science Degree Requirements:**

Course	Title	Units
OH 120	Fundamentals of Ornamental Horticulture	3
OH 130	Plant Pest Control	3
OH 140	Soils	3
OH 170	Plant Materials: Trees and Shrubs	3
OH 260	Arboriculture	3
OH 261	Tree Surgery and Specialized Pruning Techniques	1
OH 262	Arboriculture: Palms and Related Plants	1
OH 263	Urban Forestry	1
OH 275	Diagnosing Horticultural Problems	1.5
OH 290*	Cooperative Work Experience Education	3
		<u>22.5</u>

**Select eleven (11) units from the following:**

OH 102	Xeriscape: Water Conservation in the Landscape	2
OH 172	Introduction to Landscape Design	3
OH 235	Principles of Landscape Irrigation	4
OH 276	Horticultural Equipment Repair and Maintenance	3
OH 278	Business Management for Ornamental Horticulture	3
SPAN 120	Spanish I	5
		<u>11</u>
	Total Required	33.5
	Plus General Education Requirements	

\*Student must complete 6 units within the major at Cuyamaca College to be eligible for this course

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Arboriculture. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**II. FLORISTRY (Major Code: 59505)**

This degree program is designed as an emphasis in the ornamental horticulture major for those individuals seeking careers in the floral industry, or to upgrade their existing skills and prepare for further training. Coursework is directed toward skills, concepts, and practices used in the commercial floral industry with an emphasis on hands-on training.

**Associate in Science Degree Requirements:**

Course	Title	Units
OH 114	Floral Design I	3
OH 116	Floral Design II	3
OH 117	Wedding Design I	3
OH 120	Fundamentals of Ornamental Horticulture	3
OH 180	Plant Materials: Annuals and Perennials	3
OH 240	Greenhouse Plant Production	3
OH 290*	Cooperative Work Experience Education	3
		<u>21</u>

**Select one (1) of the following:**

OH 118	Special Occasion Floristry	3
OH 119	Wedding Design II	3
		<u>3</u>

**Select nine (9) units from the following:**

ART 120	Two-Dimensional Design	3
ART 124	Drawing I	3
ART 141	History of Western Art II: 1250 A.D. to Present Time	3
OH 118**	Special Occasion Floristry	3
OH 119**	Wedding Design II	3
OH 121	Plant Propagation	3
OH 140	Soils	3
OH 170	Plant Materials: Trees and Shrubs	3
OH 278	Business Management for Ornamental Horticulture	3
		<u>9</u>
	Total Required	33
	Plus General Education Requirements	

\* Student must complete 6 units within the major at Cuyamaca College to be eligible for this course

\*\* May not be used for credit as both an elective and as required in previous section

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Floristry. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

### III. GOLF COURSE AND SPORTS TURF MANAGEMENT (Major Code: 53016)

Students in this major pursue careers as golf course superintendents or sports turf managers. The program is intended for those wishing to enter the field as well as those that desire upgrading of existing skills. Students may also transfer to a four-year degree program in agronomy, turf management or related field. Coursework is designed to study environmentally sound solutions for the efficient production and management of golf and sports turf.

#### Associate in Science Degree Requirements:

Course	Title	Units
BUS 156	Principles of Management	3
OH 120	Fundamentals of Ornamental Horticulture	3
OH 130	Plant Pest Control	3
OH 140	Soils	3
OH 170	Plant Materials: Trees and Shrubs	3
OH 174	Turf and Ground Cover Management	3
OH 220	Landscape Construction: Concrete and Masonry	3
OH 235	Principles of Landscape Irrigation	4
OH 265	Golf Course and Sports Turf Management	3
OH 276	Horticultural Equipment Repair and Maintenance	3
OH 290*	Cooperative Work Experience Education	5
	Total Required	36
	Plus General Education Requirements	

\*Student must complete 6 units within the major at Cuyamaca College to be eligible for this course

#### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Golf Course and Sports Turf Management. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

### IV. IRRIGATION TECHNOLOGY (Major Code: 53011)

This specialized field focuses on the design, installation and management of landscape irrigation systems. The program is designed for entry level students, those seeking to upgrade existing skills, or those wishing to transfer to a four-year degree program at Cal Poly or other institution. The use of current design theory, installation techniques and management programs form the heart of the curriculum. Graduates are employed by landscape architects, irrigation consultants, landscape contractors, public agencies or are may be self-employed.

#### Associate in Science Degree Requirements:

Course	Title	Units
OH 102	Xeriscape: Water Conservation in the Landscape	2
OH 120	Fundamentals of Ornamental Horticulture	3
OH 140	Soils	3
OH 174	Turf and Ground Cover Management	3
OH 221	Landscape Construction: Irrigation and Carpentry	3
OH 235	Principles of Landscape Irrigation	4
OH 238	Irrigation System Design	3
OH 290*	Cooperative Work Experience Education	3
		24

#### Select nine (9) units from the following:

ENGR 218	Plane Surveying	4
OH 130	Plant Pest Control	3
OH 172	Introduction to Landscape Design	3
OH 200**	Introduction to Computer Aided Landscape Design	3
OH 225	Landscape Contracting	3
OH 276	Horticultural Equipment Repair and Maintenance	3
SPAN 120	Spanish I	5
		9
	Total Required	33
	Plus General Education Requirements	

\*Student must complete 6 units within the major at Cuyamaca College to be eligible for this course

\*\*May also be offered at Southwestern College as LA 200

#### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Irrigation Technology. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**V. LANDSCAPE DESIGN (Major Code: 59516)**

Courses in this major will provide students with a systematic, process oriented approach to landscape design for residential landscapes. Coursework is designed for entry level skills, upgrading of existing skills and for transfer to a four-year degree program. The curriculum is designed to investigate the current trends in landscape design with the technologies used in the construction of the projects. Graduates are employed by landscape architects, landscape contractors, public agencies or may be self-employed.

**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
OH 102	Xeriscape: Water Conservation in the Landscape	2
OH 170	Plant Materials: Trees and Shrubs	3
OH 172	Introduction to Landscape Design	3
OH 173	Intermediate Landscape Design	3
OH 175	Advanced Landscape Design	3
OH 180	Plant Materials: Annuals and Perennials	3
OH 200*	Introduction to Computer Aided Landscape Design	3
OH 201**	Advanced Computer Aided Landscape Design	3
OH 220	Landscape Construction: Concrete and Masonry	3
OH 235	Principles of Landscape Irrigation	4
OH 278	Business Management for Ornamental Horticulture	3
OH 290***	Cooperative Work Experience Education	3
	Total Required	36
	Plus General Education Requirements	

\*May also be offered at Southwestern College as *LA 200*

\*\*May also be offered at Southwestern College as *LA 201*

\*\*\*Student must complete 6 units within the major at Cuyamaca College to be eligible for this course

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Landscape Design. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**VI. LANDSCAPE TECHNOLOGY (Major Code: 53001)**

Landscape installation and management forms the focus of this program. Students learn the latest methods, materials and techniques in the landscape industry. Students seeking careers in Landscape Technology are entering a challenging career field that requires knowledge of plant material, turfgrass, landscape and irrigation design, soils, pest control and landscape construction. A professional in the field has the opportunity to be involved in working with people as well as plants as the manager must direct and supervise employees, deal with clients and suppliers, and may become involved in professional organizations. Students entering the landscape industry, those already employed but seeking upgraded skills, and those wishing to transfer to Cal Poly or other four-year degree programs will benefit from the curriculum. Graduates are employed by landscape contractors, public agencies or are self-employed.

**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
OH 120	Fundamentals of Ornamental Horticulture	3
OH 130	Plant Pest Control	3
OH 140	Soils	3
OH 170	Plant Materials: Trees and Shrubs	3
OH 172	Introduction to Landscape Design	3
OH 180	Plant Materials: Annuals and Perennials	3
OH 220	Landscape Construction: Concrete and Masonry	3
OH 235	Principles of Landscape Irrigation	4
OH 290*	Cooperative Work Experience Education	3
		<u>28</u>

**Select five (5) units from the following:**

OH 102	Xeriscape: Water Conservation in the Landscape	2
OH 173	Intermediate Landscape Design	3
OH 174	Turf and Ground Cover Management	3
OH 221	Landscape Construction: Irrigation and Carpentry	3
OH 225	Landscape Contracting	3
OH 276	Horticultural Equipment Repair and Maintenance	3
OH 278	Business Management for Ornamental Horticulture	3
SPAN 120	Spanish I	5
		<u>5</u>
	Total Required	33
	Plus General Education Requirements	

\*Student must complete 6 units within the major at Cuyamaca College to be eligible for this course

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Landscape Technology. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**VII. NURSERY TECHNOLOGY** (Major Code: 53002)

Students enrolled in this major pursue careers in the wholesale production and retail sales of horticultural crops. Coursework will focus on plant propagation, greenhouse plant production, and horticultural practices related to production and sales of landscape and greenhouse plant material. Students entering the nursery industry, those already employed but seeking upgraded skills, and those wishing to transfer to Cal Poly or other four-year degree programs will benefit from the curriculum. Graduates are employed by wholesale and retail nurseries, public agencies or may be self employed.

**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
OH 120	Fundamentals of Ornamental Horticulture	3
OH 121	Plant Propagation	3
OH 130	Plant Pest Control	3
OH 140	Soils	3
OH 170	Plant Materials: Trees and Shrubs	3
OH 180	Plant Materials: Annuals and Perennials	3
OH 240	Greenhouse Plant Production	3
OH 290*	Cooperative Work Experience Education	3
		24

**Select nine (9) units from the following:**

BIO 122	Plant Structures and Functions	4
OH 114	Floral Design I	3
OH 172	Introduction to Landscape Design	3
OH 276	Horticultural Equipment Repair and Maintenance	3
OH 278	Business Management for Ornamental Horticulture	3
SPAN 120	Spanish I	5
		9
	Total Required	33
	Plus General Education Requirements	

\*Student must complete 6 units within the major at Cuyamaca College to be eligible for this course

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Nursery Technology. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**PARALEGAL STUDIES**

(Major Code: 59507)

The legal profession has evolved, like the medical profession, into a profession of specialties. Based on this recent development, lawyers need qualified assistants to better help them provide legal services to their clients. Paralegals are trained, professional technicians able to provide this needed legal assistance.

This degree program is specifically designed to prepare and provide students with the analytical skills and written abilities necessary to assist attorneys in the practice of law. The technical curriculum goals and objectives emphasize three primary areas:

1. Legal Research, Analysis and Writing
2. Ethics and the Mechanics of Law
3. Cooperative Work Experience

The successful paralegal degree candidate will possess a broad educational background with an opportunity to gain specialized skills in specific areas of law. The large curriculum offering also allows practicing paralegals to attend college refresher or new skills development courses.

This program does not prepare students for law school or the practice of law.

**CAREER OPPORTUNITIES**

- Claim Examiner
- Compensation and Benefits Manager
- Compliance and Enforcement Inspector
- †Contract Consultant
- Forms and Procedures Specialist
- Freelance Paralegal
- \*Labor Relations Specialist
- Law Clerk
- Legal Aide
- Legal Assistant
- Legal Research Assistant
- Legal Technician
- Occupational Safety and Health Worker
- †Paralegal
- Patent Agent
- Title Examiner

\*Bachelor Degree or higher required

†Bachelor Degree normally recommended

**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
BOT 120-122	Comprehensive Word Levels I-III	3
BUS 125	Business Law: Legal Environment of Business	3
PARA 100	Introduction to Paralegal Studies	3
PARA 110	Civil Litigation Practice and Procedures	3
PARA 125	Business Organization	3
PARA 130	Legal Research and Writing	3
PARA 132	Computer Assisted Legal Research (CALR)	3
		21

**Select at least six (6) units from the following:**

PARA 120	Administrative Law	3
PARA 135	Bankruptcy Law	1
PARA 140	Criminal Law and Procedures	3
PARA 145	Estate Planning	3
PARA 150	Family Law	3
PARA 155	Insurance Law	3
PARA 160	Personal Injury	1
PARA 165	Probate Law	3
PARA 170	Worker's Compensation	1
PARA 180	Government and Public Contracts	3
PARA 250*	Internship	1-3
		6
	Total Required	27
	Plus General Education Requirements	

**Recommended Electives:**

BUS 128, ENGL 120

\*Student must complete 18 units within the major to be eligible for this course.

To fulfill G.E. requirements for the Paralegal Studies degree, select from the following:

**AREA A—LANGUAGE AND RATIONALITY**

(Minimum of 6 semester units)

This requirement is met by taking one course from each of the two areas:

**1. Written Communication:**

ENGL 110, 120

**2. Oral Communication and Analytical Thinking:**

COMM 120, 122, 137

MATH 103, 110, 120, 125, 150, 160, 170, 175, 176, 178, 180, 245, 280, 281, 284

PHIL 125, 130

PSY 215

**AREA B—NATURAL SCIENCES**

(Minimum of 4 semester units)

This requirement is met by taking a course that includes a laboratory (laboratory courses are underlined):

ANTH 130

ASTR 110, 112

BIO 112, 115, 122, 126, 128, 130, 131, 140, 210, 220, 221

CHEM 115, 116, 120, 141

GEOG 120, 121

GEOL 104, 110

OCEA 112

PHYC 110, 120, 121, 130, 131, 190, 200, 210

**AREA C—HUMANITIES**

(Minimum of 3 semester units)

This requirement is met by taking one of the following courses:

ARAM 120, 121, 220

ARBC 120, 121, 220, 221, 250, 251

ART 100, 120, 140, 141, 144, 145

ASL 120

COMM 124, 145

ENGL 122, 201, 202, 207, 214, 217, 221, 222, 231, 232, 270, 271, 275, 276, 277

FREN 120, 121, 220, 221, 250, 251

HIST 100, 101, 105, 106, 210

HUM 110, 120, 140, 155

MUS 110, 111, 115, 116

PHIL 110, 115, 117, 140, 160

RELG 100, 120, 130, 140, 150, 200, 210, 215

SPAN 120, 120A & 120B\*, 121, 141, 145, 220, 221, 250, 251

THTR 110

**AREA D—SOCIAL AND BEHAVIORAL SCIENCES**

(Minimum of 3 semester units)

This requirement is met by taking one of the following courses:

ANTH 120

CD 125

ECON 110, 120, 121

GEOG 106, 130

HED 120, 122

HIST 108, 109, 114, 115, 118, 119, 122, 123, 124, 130, 131, 180, 181

POSC 120, 121, 124, 130, 140

PSY 120, 125, 134, 138, 140, 165, 170, 220

SOC 120, 125, 130

**ADDITIONAL REQUIREMENTS:**

(Minimum 6 semester units)

This requirement is met by selecting two additional courses. The two courses must come from two different areas:

- Area B, Natural Sciences
- Area C, Humanities
- Area D, Social and Behavioral Sciences

\*Will receive general education credit for SPAN 120B only after completion of SPAN 120A.

NOTE: General Education course choices for transfer and the Associate Degree may differ between Cuyamaca College and Grossmont College. Each college strongly recommends that students visit the Counseling Centers for specific information if they plan to attend both campuses.

**DEGREE REQUIREMENTS:**

Cuyamaca College will confer the Degree of Associate in Science or Associate in Arts upon students who successfully complete the following requirements:

1. A minimum of 60 semester units of college work. English composition course credit: Students may receive credit for only one English composition course below transferable freshman composition (ENGL 120) toward degree requirements.
2. Competency Requirements
  - A. Completion of ENGL 110 with a grade of "C" or better, or a grade of "CR".
  - B. Completion of MATH 103 or a higher numbered mathematics class with a grade of "C" or better, or a grade of "CR" or completion of MDTP assessment placing into a class higher than MATH 103 or 110.
3. Exercise Science Degree Requirements  
 With the exception of the University Transfer Studies degree, two activity courses in exercise science are required for graduation from Cuyamaca College. These courses are marked with an asterisk in the "Course Descriptions" section.
  - A. If medical reasons necessitate exclusion from exercise science, a medical statement must be on file with the Admissions and Records Office. Adaptive exercise science classes are available.
  - B. Veterans who have completed at least one year of honorable active service will receive two units of credit for exercise science which will satisfy the activity requirement for graduation. To receive credit for military service, a DD-214 or appropriate military records must be submitted to the Admissions and Records Office.
4. Achievement of a "C" average (2.0 GPA) in all college work counted toward degree requirements.
5. A maximum of 12 "CR" semester units taken in regular course work at this institution may be counted toward the 60 semester units required for graduation but shall not be included as part of the requirements for the major.
6. A minimum of 12 semester units of Legal Specialty courses must be completed at Cuyamaca College.

\*A grade of "CR" (Credit) represents a "C" grade or better. For more information regarding degree requirements, see "Transfer" section.

**PHYSICAL SCIENCE** (Major Code: 59508)

The physical science curriculum is designed to give students working toward a bachelor's degree a well-balanced, lower division program. Emphasizes fundamental concepts and problem solving. The degree requirements are typical of what other four-year colleges and universities require, and satisfy the requirements of San Diego State University.

**CAREER OPPORTUNITIES**

This major trains students for a wide variety of diverse professions such as teaching science, technical administration in industry and government, legal work with patents, scientific librarianship and scientific journalism.

- \*Astronomer
- Cartographic Technician
- \*Chemist
- Geodetic Technician
- \*Geologist
- \*Meteorologist
- Meteorological Technician
- \*Oceanographer
- \*Patent Lawyer
- \*Physical Science Teacher
- Physical Science Technician
- \*Physicist
- Range Technician
- Soil Conservation Technician

\*Bachelor Degree or higher required

**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
ASTR 110	Descriptive Astronomy	3
CHEM 141	General Chemistry I	5
CHEM 142	General Chemistry II	5
CHEM 231	Organic Chemistry I	5
GEOL 110	General Geology	3
MATH 180	Analytical Geometry and Calculus I	5
MATH 280	Analytical Geometry and Calculus II	4
MATH 281	Intermediate Calculus	4
PHYC 190	Mechanics and Heat	5
PHYC 200	Electricity and Magnetism	5
PHYC 210	Wave Motion and Modern Physics	5
	Total Required	49
	Plus General Education Requirements	

## PHYSICS (Major Code: 59509)

Physics is the study of the relationship between matter and energy in the universe. The curriculum is designed to give students working toward a bachelor's degree a well-balanced, lower division program. Emphasizes fundamental concepts and problem solving. The degree requirements are typical of what other four-year colleges and universities require, and satisfy the requirements of San Diego State University.

### CAREER OPPORTUNITIES

- Air Pollution Operating Specialist
- \*Astronomer
- \*Astrophysicist
- \*Biomedical Engineer
- \*Biophysicist
- \*Chemical Physicist
- Consumer Safety Officer
- \*Cryogenic Engineer
- Electrician
- Food and Drug Inspector
- \*Fusion Engineer
- \*Geophysicist
- Government Claims Representative
- Health Program Representative
- \*High Energy Physicist
- Laser Specialist
- \*Metallurgist
- \*Meteorologist
- \*Nuclear Physicist
- \*Physical Oceanographer
- \*Physicist
- \*Plasma Physicist
- Quality Control Technician
- \*Quantum Physicist
- \*Seismologist

\*Bachelor Degree or higher required

### Associate in Science Degree Requirements:

Course	Title	Units
CHEM 141	General Chemistry I	5
CHEM 142	General Chemistry II	5
MATH 180	Analytical Geometry and Calculus I	5
MATH 280	Analytical Geometry and Calculus II	4
MATH 281	Intermediate Calculus	4
PHYC 190	Mechanics and Heat	5
PHYC 200	Electricity and Magnetism	5
PHYC 210	Wave Motion and Modern Physics	5
	Total Required	38
	Plus General Education Requirements	

## REAL ESTATE

### I. REAL ESTATE (Major Code: 50043)

This degree program is designed to prepare students for employment in real estate or related fields. It also meets the educational requirements for the California Real Estate Broker's License and helps prepare both the salesperson and broker for the state examination. Most real estate classes also meet educational requirements for appraisal licensing.

### CAREER OPPORTUNITIES

- Agent
- †Appraiser
- Broker
- Builder/Developer
- \*Economist
- Escrow Officer/Trust Manager
- Investor
- Lender/Financial Institution
- Property Manager
- Salesperson
- Title Officer

\*Bachelor Degree or higher required

†Office of Real Estate Appraisal License required

### Associate in Science Degree Requirements:

Course	Title	Units
RE 190	Real Estate Principles	3
RE 191	Real Estate Practice	3
RE 192	Real Estate Finance	3
RE 193	Real Estate Legal Aspects	3
RE 194	Real Estate Appraisal	3
		15

### Select three (3) of the following including one Accounting or Economics course:

BUS 110*	Introduction to Business	3
BUS 120	Financial Accounting	4
ECON 110	Economic Issues and Policies	3
	<b>or</b>	
ECON 120	Principles of Macroeconomics	3
	<b>or</b>	
ECON 121	Principles of Microeconomics	3
	<b>or</b>	
RE 197	Real Estate Economics	3
RE 201	Real Estate Property Management	3
RE 250*	Real Estate Internship	1-4
RE 294	Advanced Real Estate Appraisal	3
	Elective (select one Elective from below)	3
		7-11

### Electives:

BUS 125	Business Law: Legal Environment of Business	3
RE 125	Escrow Procedures I	3
RE 202*	Business Opportunities Sales	3
RE 204	Real Estate Office Administration	3
RE 230*	Commercial Real Estate	3
RE 292	Mortgage Loan Brokering and Lending	3

Total Required 22-26  
Plus General Education Requirements

\*Non-Department of Real Estate Licensing course

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Real Estate. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**BROKER'S LICENSE**

Students may satisfy the California State Education requirement for a Broker's License by completing the following:

<i>Course</i>	<i>Title</i>	<i>Units</i>
RE 190	Real Estate Principles	3
RE 191	Real Estate Practice	3
RE 192	Real Estate Finance	3
RE 193	Real Estate Legal Aspects	3
RE 194	Real Estate Appraisal	3
	One Accounting or Economics Course	3
	Electives* (select two electives from previous column)	6
	<b>Total Required</b>	<b>24</b>

**II. ESCROW (Major Code: 50045)**

**Certificate Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
RE 125	Escrow Procedures I	3
RE 126	Escrow Procedures II	3
RE 127	Escrow Procedures III	3
RE 190	Real Estate Principles	3
RE 192	Real Estate Finance	3
RE 193	Real Estate Legal Aspects	3
	<b>Total Required</b>	<b>18</b>

**Select two (2) of the following:**

BUS 120	Financial Accounting	4
BUS 121	Managerial Accounting	4
BUS 125	Business Law: Legal Environment of Business	3
ECON 120	Principles of Macroeconomics	3
ECON 121	Principles of Microeconomics	3
RE 191	Real Estate Practice	3
RE 194	Real Estate Appraisal	3
RE 197	Real Estate Economics	3
RE 201	Real Estate Property Management	3
RE 202	Business Opportunities Sales	3
RE 204	Real Estate Office Administration	3
	<b>Total Required</b>	<b>24-26</b>

**Certificate of Achievement**

Students who complete the requirements above qualify for a Certificate in Escrow. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**SPANISH** (Major Code: 54049)

This degree program is designed to provide students with communicative skills in understanding, speaking, reading, and writing Spanish. It also gives students a greater understanding of Spanish culture and civilization, and prepares them for greater international and domestic career opportunities. For the suggested sequence of courses to be taken and/or assistance in transferring to a four-year institution, students should consult the Counseling Center or the Department of Foreign Languages.

**CAREER OPPORTUNITIES**

- Bilingual Aide
- Border Patrol Officer
- Buyer
- Court Interpreter
- Counseling
- Customs Agent/Inspector
- Foreign Exchange Clerk
- \*Foreign Student Advisor
- Interpreter
- \*Journalist
- \*Museum Curator
- \*Physician
- \*Scientific Linguist
- Tour Guide
- Tutor

\*Bachelor Degree or higher required

**Associate in Arts Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
SPAN 120	Spanish I	5
<b>or</b>		
SPAN 120A	Spanish I	2.5
<b>and</b>		
SPAN 120B	Spanish I	2.5
SPAN 121	Spanish II	5
SPAN 220	Spanish III	5
SPAN 221	Spanish IV	5
SPAN 250	Conversational Spanish	3
SPAN 251	Conversational Spanish	3
	<b>Total Required</b>	<b>26</b>

**Select one (1) of the following:**

HIST 118	U.S. History: Chicano/Chicana Perspectives I	3
HIST 119	U.S. History: Chicano/Chicana Perspectives II	3
SPAN 141	Spanish and Latin American Cultures	3
SPAN 145	Hispanic Civilizations	3
	<b>Total Required</b>	<b>3</b>
	<b>Total Required</b>	<b>29</b>
	Plus General Education Requirements	

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Spanish. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

## SURVEYING (Major Code: 53091)

This degree program prepares students to enter the civil engineering field. Competency in care and operation of field instruments, solution of problems in the laboratory, drafting of land survey maps and civil engineering plans, and application of studies to field practice are thoroughly explored.

### CAREER OPPORTUNITIES

Geodetic Surveyor  
 Geophysical Prospecting Surveyor  
 Instruments Surveyor Assistant  
 Land Surveyor  
 Marine Surveyor  
 Mine Surveyor  
 Oil-Well Directional Surveyor

### Associate in Science Degree Requirements:

Course	Title	Units
CADD 115	Engineering Graphics	3
<b>or</b>		
ENGR 100	Introduction to Engineering and Engineering Graphics	2
CADD 120ABCD	Basic CAD	3
CADD 127	Survey Drafting Technology	3
ENGR 218	Plane Surveying	4
ENGR 240	Advanced Surveying	4
MATH 110	Intermediate Algebra for Business, Mathematics, Science and Engineering	5
MATH 170	Analytic Trigonometry	3
PHYC 110	Introductory Physics	4
	Total Required	28-29
	Plus General Education Requirements	

### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Surveying. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

## UNIVERSITY TRANSFER STUDIES

This degree is designed for students who plan to transfer to the California State University or the University of California. To receive the University Studies Transfer Associate Degree, a student must complete ONE of four General Education transfer patterns: the CSU General Education Breadth, the Intersegmental General Education Transfer Curriculum (IGETC) for CSU or UC, **or** the Transfer Admission Guarantee (TAG) requirements for the University of California, San Diego. Although the degree recognizes the completion of lower division general education requirements, it does not guarantee admission to a four-year institution. Some majors and schools require a higher GPA than is necessary for the Associate Degree.

### I. CSU General Education Breadth (Major Code: 58501)

To meet requirements of the CSU General Education Breadth program, students must:

1. Complete CSU General Education Breadth for Certification pattern (see Transfer Information and Degree Requirements).
2. Earn a grade of "C" or better (or CR) in 30 semester units of general education to include all courses in Area A and the Mathematical/Quantitative Reasoning course in Area B.
3. Complete a minimum of 60 degree applicable CSU transferable semester units.
4. Earn a cumulative GPA of 2.0 in all college coursework completed.
5. Meet Cuyamaca College residency requirements for graduation (see Admission Information).

### II. Intersegmental General Education Transfer Curriculum (IGETC) for CSU (Major Code: 58502)

To meet requirements of the IGETC for CSU program, students must:

1. Complete the IGETC Certification pattern (see Transfer Information and Degree Requirements).
2. Earn a grade "C" or better (or CR) in all IGETC courses.
3. Complete a minimum of 60 degree applicable CSU transferable semester units.
4. Earn a cumulative GPA of 2.0 in all college coursework completed.
5. Meet Cuyamaca College residency requirements for graduation (see Admission Information).

**III. Intersegmental General Education Transfer Curriculum (IGETC) for UC (Major Code: 58503)**

To meet requirements of the IGETC for UC program, students must:

1. Complete the IGETC Certification pattern (see Transfer Information and Degree Requirements).
2. Earn a grade of "C" or better (or CR) in all IGETC courses.
3. Complete a minimum of 60 degree applicable UC transferable semester units.
4. Earn a cumulative GPA of 2.0 in all college coursework completed.
5. Meet Cuyamaca College residency requirements for graduation (see Admission Information).

**IV. Transfer Admission Guarantee (TAG) Requirements for the University of California, San Diego (Major Code: 58504)**

To meet requirements of the UCSD TAG program, students must:

1. Complete the TAG core requirements (see Transfer Information and Degree Requirements).
2. Complete a minimum of 60 degree applicable UC transferable semester units.
3. Meet minimum grade standards of the UCSD TAG agreement.
4. Meet Cuyamaca College residency requirements for graduation (see Admission Information).

It is STRONGLY recommended that lower division preparation for the major be completed at the community college prior to transfer and be incorporated into the 60 unit degree plan. Please meet with a counselor to determine lower division major preparation since requirements change and can be complex.

## WATER/WASTEWATER TECHNOLOGY

This degree program is designed to prepare students for employment by municipal drinking water and wastewater treatment departments or industrial treatment facilities. Careers in Water/Wastewater Technology generally involve the administration, operation and maintenance of both drinking water and wastewater treatment facilities as well as distribution and collection systems.

**CAREER OPPORTUNITIES**

- Backflow Program Manager
- \*Chemist
- Construction Inspector
- Cross Connection Control Specialist
- Electronic Technician
- \*Engineer, Civil
- \*Engineer, Electrical
- Engineer Technician
- Equipment Maintenance Operator
- Field Operations Supervisor
- GIS/Mapping Specialist
- Inspector
- Instrumentation and Control Technician
- Instrumentation and Control Supervisor
- Laboratory Analyst
- Machinist
- Mechanical Systems Technician
- Meter Maintenance Technician
- Plant Operator
- Plant Process Control Electrician
- Plant Process Control Supervisor
- Recycled Water Inspector
- \*Safety and Risk Manager
- Survey Technician
- Utility Worker
- Wastewater Plant Operator
- Wastewater Treatment Superintendent
- \*Water Distribution Operator
- \*Water Quality and Treatment Manager
- Water Systems Technician

\*Bachelor Degree recommended

**I. CROSS CONNECTION CONTROL SYSTEMS (Major Code: 51063)**

**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
WWTR 101	Fundamentals of Water/Wastewater Technology	3
WWTR 102	Calculations in Water/Wastewater Technology	3
WWTR 104	Applied Hydraulics	3
WWTR 130	Water Distribution Systems	3
WWTR 280	Backflow Tester Training	2
WWTR 282	Cross Connection Control Specialist	3
WWTR 284	Cross Connection Control Specialist– Recycled Water	3
		20

**Select eight to ten (8-10) units from the following:**

ENVT 100	Introduction to Environmental and Occupational Safety and Health (OSH) Technology	4
ENVT 110	Pollution Prevention	3
ENVT 210	Industrial Wastewater and Stormwater Management	4
WWTR 110	Laboratory Analysis for Water/Wastewater	3
WWTR 290	Cooperative Work Experience	3
		8-10
	Total Required	28-30
	Plus General Education Requirements	

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Cross Connection Control Systems. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**II. WATER DISTRIBUTION SYSTEMS**

(Major Code: 51064)

**Associate in Science Degree Requirements:**

Course	Title	Units
WWTR 101	Fundamentals of Water/Wastewater Technology	3
WWTR 102	Calculations in Water/Wastewater Technology	3
WWTR 104	Applied Hydraulics	3
WWTR 106	Introduction to Electrical and Instrumentation Processes	3
WWTR 130	Water Distribution Systems	3
WWTR 134	Mechanical Maintenance	3
WWTR 265	Water Distribution Systems II	3
		21

**Select eight to nine (8-9) units from the following:**

ENVT 100	Introduction to Environmental and Occupational Safety and Health (OSH) Technology	4
ENVT 110	Pollution Prevention	3
ENVT 210	Industrial Wastewater and Stormwater Management	4
WWTR 112	Basic Plant Operations: Water Treatment	3
WWTR 270	Public Works Supervision	3
WWTR 280	Backflow Tester Training	2
WWTR 282	Cross Connection Control Specialist	3
WWTR 284	Cross Connection Control Specialist-Recycled Water	3
WWTR 290	Cooperative Work Experience	3
		8-9
	Total Required	29-30
	Plus General Education Requirements	

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Water Distribution Systems. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**III. WATER TREATMENT PLANT OPERATOR**

(Major Code: 51060)

**Associate in Science Degree Requirements:**

Course	Title	Units
WWTR 101	Fundamentals of Water/Wastewater Technology	3
WWTR 102	Calculations in Water/Wastewater Technology	3
WWTR 104	Applied Hydraulics	3
WWTR 106	Introduction to Electrical and Instrumentation Processes	3
WWTR 110	Laboratory Analysis for Water/Wastewater	3
WWTR 112	Basic Plant Operations: Water Treatment	3
WWTR 117	Advanced Plant Operations: Water Treatment	3
		21

**Select one (1) of the following:**

WWTR 114	Basic Plant Operations: Wastewater Treatment	3
WWTR 130	Water Distribution Systems	3
WWTR 132	Wastewater Collection Systems	3
WWTR 134	Mechanical Maintenance	3
WWTR 270	Public Works Supervision	3
WWTR 290	Cooperative Work Experience	3
		3

**Select two (2) of the following:**

ENVT 100	Introduction to Environmental and Occupational Safety and Health (OSH) Technology	4
ENVT 110	Pollution Prevention	3
ENVT 210	Industrial Wastewater and Stormwater Management	4
WWTR 280	Backflow Tester Training	2
WWTR 282	Cross Connection Control Specialist	3
		5-8
	Total Required	29-32
	Plus General Education Requirements	

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Water Treatment Plant Operator. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**IV. WASTEWATER COLLECTION SYSTEMS**  
(Major Code: 51065)

**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
WWTR 101	Fundamentals of Water/Wastewater Technology	3
WWTR 102	Calculations in Water/Wastewater Technology	3
WWTR 104	Applied Hydraulics	3
WWTR 106	Introduction to Electrical and Instrumentation Processes	3
WWTR 132	Wastewater Collection Systems	3
WWTR 134	Mechanical Maintenance	3
WWTR 267	Wastewater Collection Systems II	3
		21

**Select eight to nine (8-9) units from the following:**

ENVT 100	Introduction to Environmental and Occupational Safety and Health (OSH) Technology	4
ENVT 110	Pollution Prevention	3
ENVT 210	Industrial Wastewater and Stormwater Management	4
WWTR 114	Basic Plant Operations: Wastewater Treatment	3
WWTR 270	Public Works Supervision	3
WWTR 280	Backflow Tester Training	2
WWTR 282	Cross Connection Control Specialist	3
WWTR 284	Cross Connection Control Specialist-Recycled Water	3
WWTR 290	Cooperative Work Experience	3
		8-9
	Total Required	29-30
	Plus General Education Requirements	

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Wastewater Collection Systems. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**V. WASTEWATER TREATMENT OPERATOR**  
(Major Code: 51061)

**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
WWTR 101	Fundamentals of Water/Wastewater Technology	3
WWTR 102	Calculations in Water/Wastewater Technology	3
WWTR 104	Applied Hydraulics	3
WWTR 106	Introduction to Electrical and Instrumentation Processes	3
WWTR 110	Laboratory Analysis for Water/Wastewater	3
WWTR 114	Basic Plant Operations: Wastewater Treatment	3
WWTR 120	Advanced Plant Operations: Wastewater Treatment	3
		21

**Select one (1) of the following:**

WWTR 112	Basic Plant Operations: Water Treatment	3
WWTR 130	Water Distribution Systems	3
WWTR 132	Wastewater Collection Systems	3
WWTR 134	Mechanical Maintenance	3
WWTR 270	Public Works Supervision	3
WWTR 290	Cooperative Work Experience	3
		3

**Select two (2) of the following:**

ENVT 100	Introduction to Environmental and Occupational Safety and Health (OSH) Technology	4
ENVT 110	Pollution Prevention	3
ENVT 210	Industrial Wastewater and Stormwater Management	4
WWTR 280	Backflow Tester Training	2
WWTR 282	Cross Connection Control Specialist	3
		5-8
	Total Required	29-32
	Plus General Education Requirements	

**Certificate of Achievement**

Students who complete only the major requirements above qualify for a Certificate in Wastewater Treatment Operator. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

# COURSE DESCRIPTIONS

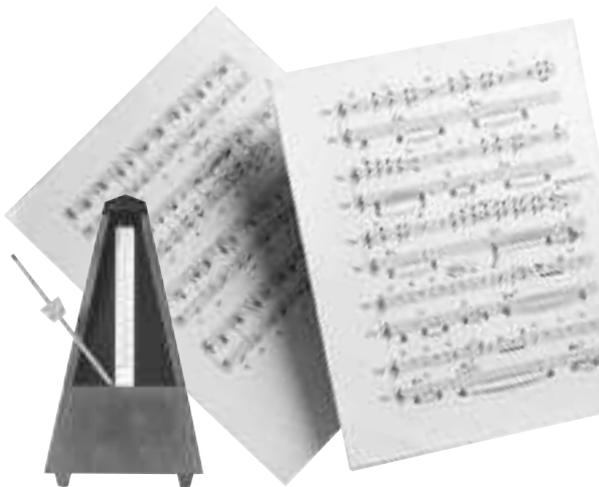
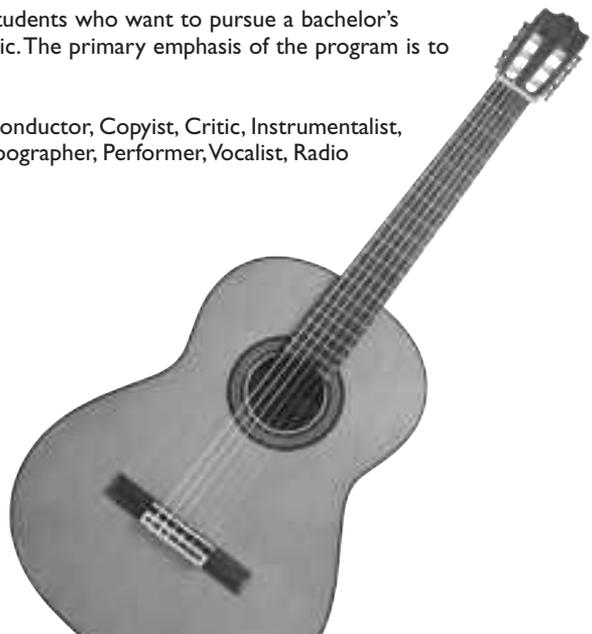
## Music Education

The music education program offers lower division preparation for students who want to pursue a bachelor's degree in music education and a California teaching credential in music. The primary emphasis of the program is to prepare students for transfer to four-year music education programs.

**CAREER OPPORTUNITIES:** Arranger, Choral Director, Composer, Conductor, Copyist, Critic, Instrumentalist, Music Instructor/Professor, Music Librarian, Music Therapist, Music Typographer, Performer, Vocalist, Radio Programmer, Recording Company Representative, Teacher.



Martha Heminger,  
Piano Instructor



G r o w i n g F o r Y o u r F u t u r e

## EXPLANATION OF ABBREVIATIONS AND COURSE NOTES

Courses which meet the requirements for General Education for the Associate Degree, CSU Certification and the Intersegmental General Education Transfer Curriculum (IGETC) are identified after each course description. The California Articulation Number (CAN) is included below the course title. The CSU and UC indicators are also included after the course description and mean that these courses transfer for at least elective credit to these two public systems of higher education in California.

If you would like more information on how courses meet your specific Associate Degree or transfer objectives, please see a counselor.

<b>AA/AS GE</b>	= Meets general education for the Associate degree.
<b>CAN</b>	= Identifies many transferable, lower division, preparation courses commonly taught on California college and university campuses. Verify the status of all CAN # courses with the Counseling Center.
<b>CSU</b>	= Transfers to the CSU for at least elective credit.
<b>CSU GE</b>	= Meets general education requirements for the California State University system.
<b>IGETC</b>	= Meets Intersegmental General Education Transfer Curriculum requirements.
<b>UC</b>	= Course is transferable to the University of California campuses.
<b>UC credit limit</b>	= Limits the total amount of credit awarded for a series or sequence of courses in the same discipline.

## ACCOUNTING

### BUSINESS (ACCOUNTING) COURSES

<b>109</b>	<b>ELEMENTARY ACCOUNTING</b>	<b>3 UNITS</b>
	Prerequisite: None Corequisite: None Recommended Preparation: None 3 hours lecture	
	One-semester introduction to elementary accounting principles. Includes journals, ledgers, worksheets and financial statements for the single proprietorship. Designed for the clerical employee or for those who do not intend further study of accounting. <i>(May not be substituted for BUS 120, where required. Not open to students with credit in BUS 120.)</i>	
	<b>CSU</b>	
<b>120</b>	<b>FINANCIAL ACCOUNTING</b>	<b>4 UNITS</b>
	<i>(CAN BUS 2; CAN BUS SEQ A = BUS 120+121)</i> Prerequisite: None Corequisite: None Recommended Preparation: None 4 hours lecture	
	Introduces students to the accounting function and how it is used within our economic society. Views accounting as an information-generating system that communicates financial data to support end users in their economic decision-making. Includes the theory and concepts of accounting, as well as their application to the recording of financial information for the three types of business organizations: sole proprietorship, partnership and corporation. Emphasis on the corporate form of organization.	
	<b>CSU, UC</b>	
<b>121</b>	<b>MANAGERIAL ACCOUNTING</b>	<b>4 UNITS</b>
	<i>(CAN BUS 4; CAN BUS SEQ A = BUS 120+121)</i> Prerequisite: BUS 120 with a grade of "C" or better or "CR" or equivalent Corequisite: None Recommended Preparation: None 4 hours lecture	
	Introduces students to the concepts, methods and procedures for the development and use of accounting information to support and assist management in their internal cost accounting processes and financial decision-making. Includes the theory and concepts of cost accounting, use of financial and accounting information for planning, budgeting and control of operations, and methods and analysis to assist managerial accountants in decision-making activities.	
	<b>CSU, UC</b>	
<b>122</b>	<b>INTERMEDIATE ACCOUNTING</b>	<b>4 UNITS</b>
	Prerequisite: BUS 120 Corequisite: None Recommended Preparation: None 4 hours lecture	
	In-depth study of accounting theories and principles underlying financial statements and the determination of net income. Survey of basic accounting principles. Study of corporate balance sheet items and the analytical processes of statement preparation which include funds-flow and cash-flow reporting.	
	<b>CSU, UC</b>	

**124 AUDITING 3 UNITS**

Prerequisite: BUS 120  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Study of the role of the auditor in the American economy including the general principles and concepts of auditing duties, ethics, liability and responsibilities of the auditor, and procedures for verification of financial statements including EDP statements.

**CSU**

**129 PAYROLL ACCOUNTING AND BUSINESS TAXES 2 UNITS**

Prerequisite: BUS 120  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture

Provides students with an in-depth understanding of payroll accounting. Includes calculations of gross to net pay, coverage of federal and state withholdings and deductions, recording of payroll transactions into the accounting records, and filing of federal and state payroll tax forms. Also includes consideration of factors which determine employee versus independent contractor status, and coverage of business taxes such as sales and property taxes and their filing requirements.

**CSU**

**150 INDIVIDUAL INCOME TAX ACCOUNTING 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Introduces students to federal taxation and focuses on tax preparation as applied to the individual taxpayer. Includes an overview of the income tax environment. Topics include filing status, personal and dependency exemption, itemized and standard deductions, and solving specific problems related to the filing of the Federal Form 1040.

**CSU**

**162 ANALYSIS OF FINANCIAL STATEMENTS 3 UNITS**

Prerequisite: BUS 120  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Designed to explore the characteristics of financial statements, to analyze the reported results, and to place the findings from such an analysis in proper perspective. Students will learn how to apply ratios to financial statements, and to interpret their outcomes in order to draw various inferences and/or conclusions from their results.

**CSU**

**176 COMPUTERIZED ACCOUNTING APPLICATIONS 2 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture, 3 hours laboratory

Beginning course in small business accounting using QuickBooks software. Especially beneficial to students, teachers and professionals who are using, or plan to use, personal computers to create a chart of accounts, record customer and vendor transactions, process payroll, and print reports.

**CSU**

**AMERICAN SIGN LANGUAGE****120 AMERICAN SIGN LANGUAGE I 4 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture

The beginning course in a series of four American Sign Language courses. Introduction to American Sign Language as used within the Deaf culture. Instruction in the basic structure of the language and development of its use. Introduction to the Deaf culture and history of the language.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**121 AMERICAN SIGN LANGUAGE II 4 UNITS**

Prerequisite: ASL 120 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture

The second course in a series of four American Sign Language (ASL) courses. Students are provided an opportunity to progress and enhance their ability to communicate in American Sign Language. Students will continue the study of cultural analysis and comparisons, receptive skill comprehension, expressive skill production and ASL linguistics.

**CSU, CSU GE, IGETC, UC**

**199 SPECIAL STUDIES OR PROJECTS IN AMERICAN SIGN LANGUAGE 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours

Individual study, research or projects in American Sign Language under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**220 AMERICAN SIGN LANGUAGE III 4 UNITS**

Prerequisite: ASL 121 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture

The third course in a series of four American Sign Language (ASL) courses. Students are provided an opportunity to increase their receptive skill comprehension and expressive skill production. Cultural analysis and comparisons will focus on American Deaf cultural processes, practices, and products of Deaf culture.

**CSU, CSU GE, IGETC, UC**

**221 AMERICAN SIGN LANGUAGE IV 4 UNITS**

Prerequisite: ASL 220 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture

The last course in a series of four American Sign Language (ASL) courses. The course is taught using American Sign Language. This course is designed to increase receptive and expressive skills, increase literal and inferential comprehension as well as critical analysis of ASL communication. Cross-cultural issues are examined and discussed.

**298 SELECTED TOPICS IN AMERICAN SIGN LANGUAGE 1-4 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours

Selected topics in American Sign Language not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN AMERICAN SIGN LANGUAGE 1-4 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours

Selected topics in American Sign Language not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

## ANTHROPOLOGY

**120 CULTURAL ANTHROPOLOGY 3 UNITS  
(CAN ANTH 4)**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

The nature of culture; cultural growth and history; survey of the range of cultural phenomena including material culture, social organization, kinship systems, religion, language and other topics; systematic study of similarities and differences among cultures through investigation of selected societies.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**130 INTRODUCTION TO PHYSICAL ANTHROPOLOGY 3 UNITS  
(CAN ANTH 2)**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

People's place in nature; physical and behavioral characteristics of primates; principles of evolution and basic outline of human genetics; description of the record of early humans and discussion of explanation of fossils; present day variability among human populations.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**199 SPECIAL STUDIES OR PROJECTS IN ANTHROPOLOGY 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours

Individual study, research or projects in Anthropology under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**298 SELECTED TOPICS IN ANTHROPOLOGY 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Anthropology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN ANTHROPOLOGY 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Anthropology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

## ARABIC

### 120 ARABIC I 5 UNITS

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture

Introductory course to the Arabic language and the culture of its speakers. Facilitates the practical application of the language in everyday oral and written communication at the beginning novice level. Since the focus will be on basic communication skills, the class will be conducted in modern standard Arabic as much as possible. While becoming familiar with the Arabic speaking world, students will learn structures that will enable them to function in Arabic in everyday contexts.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

### 121 ARABIC II 5 UNITS

Prerequisite: ARBC 120 with a grade of "C" or better or "CR" or two years of high school Arabic or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture

Continuation of ARBC 120. Continues to develop oral and written skills based on practical everyday needs. Students with three years of high school Arabic should enroll in ARBC 220.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

### 199 SPECIAL STUDIES OR PROJECTS IN ARABIC 1-3 UNITS

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours

Individual study, research or projects in Arabic under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

### 220 ARABIC III 5 UNITS

Prerequisite: ARBC 121 with a grade of "C" or better or "CR" or three years of high school Arabic or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture

Continuation of ARBC 121. Continues to develop oral, listening, reading and writing skills in order to acquire proficiency in Arabic. Students with four years of high school Arabic should enroll in ARBC 221.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

### 221 ARABIC IV 5 UNITS

Prerequisite: ARBC 220 with a grade of "C" or better or "CR" or four years of high school Arabic or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture

Continuation of ARBC 220. Continues to develop oral, reading, writing and listening skills in order to improve proficiency in Arabic.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

### 250 CONVERSATIONAL ARABIC I 3 UNITS

Prerequisite: ARBC 121 or three years of high school Arabic or equivalent

Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Continues to develop oral, reading, writing and listening skills, but with an emphasis in oral proficiency.

**AA/AS GE, CSU, CSU GE, UC**

### 251 CONVERSATIONAL ARABIC II 3 UNITS

Prerequisite: ARBC 250 or four years of high school Arabic or equivalent

Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Continues to develop oral, reading, writing and listening skills, but with an emphasis in oral proficiency.

**AA/AS GE, CSU, CSU GE, UC**

### 298 SELECTED TOPICS IN ARABIC 1-5 UNITS

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-15 hours

Selected topics in Arabic not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

### 299 SELECTED TOPICS IN ARABIC 1-5 UNITS

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-15 hours

Selected topics in Arabic not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

## ARAMAIC

### 120 ARAMAIC I 5 UNITS

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture

Acquaints students with the classical-modern Aramaic alphabet, essentials of grammar and pronunciation and the Chaldean-Assyrian culture and civilization. The origin of the Semitic languages will be surveyed through selected readings and discussions.

**AA/AS GE, CSU, CSU GE, UC**

### 121 ARAMAIC II 5 UNITS

Prerequisite: ARAM 120  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture

Helps students to further their knowledge of classical-modern Aramaic grammar. Students will study nouns, pronouns, adjectives and basic verb forms.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**199 SPECIAL STUDIES OR PROJECTS IN ARAMAIC 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours

Individual study, research or projects in Aramaic under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**220 ARAMAIC III 5 UNITS**

Prerequisite: ARAM 121  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture

Helps students to further their knowledge of classical-modern Aramaic grammar. Primary emphasis on the conjugation of verbs, introduction to Aramaic literature and the translation of ancient and modern text materials. Students will also learn how to compose and write essays in modern Aramaic (Chaldean).

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**298 SELECTED TOPICS IN ARAMAIC 1-5 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-15 hours

Selected topics in Aramaic not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN ARAMAIC 1-5 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-15 hours

Selected topics in Aramaic not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

**120 TWO-DIMENSIONAL DESIGN 3 UNITS**

**(CAN ART 14)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory

Develops an understanding of how humans communicate with the visual language. Provides the concepts and vocabulary necessary to analyze and build designs that emphasize unity or diversity and teaches how to make and use patterns, gradients, balance, proportions, focal points, eye movements, major divisions, formats, subtractive color mixing and color harmony. This course is important for anyone who designs with an aesthetic component, i.e., drawing, painting, photography, film, video, theater, illustration, graphic design, cartooning, animation, architecture, sculpture, ceramics, jewelry design, crafts, engineering, interior design, landscape design, flower arranging, etc.

**AA/AS GE, CSU, CSU GE, UC**

**121 PAINTING I 3 UNITS**

**(CAN ART 10)**  
 Prerequisite: ART 120  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory

Emphasizes painting tools, materials, techniques and color principles. Students will develop skill in handling form, space, and plastic aspects of acrylic and/or oil paints.

**CSU, UC**

**124 DRAWING I 3 UNITS**

**(CAN ART 8)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory

Forms the physical and intellectual skills necessary to think visually. Develops an understanding of the fundamental drawing tools and techniques used by old and new master artists alike. Line and shape making strategies will be explored through a variety of right and left brain techniques. The use of scientific perspective, modeling and texture will be integrated into the drawing process. This course is important for anyone who must think and organize visually, i.e. drawing, painting, photography, film, video, theater, illustration, graphic design, cartooning, animation, architecture, sculpture, ceramics, jewelry design, crafts, interior design, landscape design, etc.

**AA/AS GE, CSU, CSU GE, UC**

**125 DRAWING II 3 UNITS**

Prerequisite: ART 124  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory

Builds on the drawing techniques and composition concepts covered in ART 124. Introduces brush, pen and ink into the drawing process with an emphasis on line quality and modeling using washes, hatching and stippling. Colored pencil and pastel mediums are explored using a variety of linear and tonal techniques. Scientific perspective is extended from ART 124 to include measuring, inclining planes, circles, shadows and reflections. This course is important for anyone wanting to learn new mediums to address creative problem solving and to refine drawing skills.

**CSU, UC**

**ART****100 ART APPRECIATION 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

In this introductory course students learn how to examine, compare, analyze, evaluate, interpret, and discuss works of visual art within their cultural contexts. Art media for study will include drawing, painting, printmaking, photography, sculpture, ceramics, textiles, film, architecture, etc. Works for examination will encompass representative artistic styles from western and other major world cultures, and will also include the artistic contributions of women and minority cultures.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

- 129 THREE-DIMENSIONAL DESIGN 3 UNITS**  
**(CAN ART 16)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 Introduction to the fundamental principles of three-dimensional composition emphasizing the formal elements and language of design. Basic visual, tactile and conceptual methods of defining space are examined in a series of compositional exercises. A variety of materials are used to explore the elements of line, shape, mass, texture and volume through the application of design principles such as balance, emphasis, rhythm, harmony, contrast, repetition, proportion, scale and unity. The historical development of design and aesthetics is studied along with how social, political and cultural beliefs have influenced artists and design professionals. Assignments are non-technical and do not require prior knowledge of tools and equipment. Three-dimensional design is a comprehensive introductory course that could lead to future study in a diverse range of art and design professions.  
**AA/AS GE, CSU, CSU GE, UC**
- 135 WATERCOLOR I 3 UNITS**  
 Prerequisite: ART 124  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 Introduction to basic watercolor tools, materials and techniques. Emphasizes color principles and skill development in handling form, space and the plastic aspects of paint.  
**CSU, UC**
- 140 HISTORY OF WESTERN ART I: PREHISTORIC TO 1250 A.D. 3 UNITS**  
**(CAN ART 2; CAN ART SEQ A = ART 140+141)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Historical survey of the major art forms (primarily architecture, sculpture, ceramics, painting) of the western world from prehistory to circa 1250 A.D.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 141 HISTORY OF WESTERN ART II: 1250 A.D. TO PRESENT TIME 3 UNITS**  
**(CAN ART 4; CAN ART SEQ A = ART 140+141)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Historical survey of the major art forms (primarily architecture, sculpture, ceramics, painting, printmaking, photography) of the western world from the late Gothic era to the present.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 144 ARCHITECTURE OF THE 20TH CENTURY 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Meet the 20th Century masters of the giant movements in architecture and environment. Global politics and social economics as the influential factors for the concepts, styles, philosophy and artistic expressions. Experience the landmark sites around the world via film and slide projections, independent studies and field trips.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 145 CONTEMPORARY ART HISTORY: 1945-PRESENT 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Survey of the major artists and art movements from 1945 to the present. Includes such major topics as the analysis and summary of Modernism, the transition from Modern to Post-Modern art, the emergence of non-traditional art media, and the analysis of the influence of global multiculturalism in art. Specific art practices such as painting, sculpture, earthworks, photography, performance, installation, printmaking and architecture will be discussed in relation to the cultural dialogue they establish or to which they respond.  
**AA/AS GE, CSU, IGETC, UC**
- 199 SPECIAL STUDIES OR PROJECTS IN ART 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Art under instructor guidance. Written reports and periodic conferences are required. Content and unit credit to be determined by student/ instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 220 PAINTING II 3 UNITS**  
 Prerequisite: ART 121  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 Continuation of Painting I with emphasis on creative problem-solving skills. Student will develop a personal style of expression.  
**CSU, UC**
- 221 PAINTING III 3 UNITS**  
 Prerequisite: ART 220  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 Offers a wider selection of painting mediums to include acrylic, oil, egg tempera, casein and encaustic. Students will continue developing a personal style of expression.  
**CSU, UC**

- 222 PAINTING IV 3 UNITS**  
 Prerequisite: ART 221  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 Focuses on a series of paintings that develop a personal theme or statement. Advanced painting techniques will be combined with advanced compositional devices.  
**CSU**
- 224 DRAWING III 3 UNITS**  
 Prerequisite: ART 125  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 The drawing mediums, skills, techniques and composition concepts used in ART 124 and 125 will be applied to a variety of subject matters. Students will draw different subject matters including but not limited to animals, plants, still life, landscapes, seascapes, cityscapes, etc. Emphasis is on making effective compositions with good craft.  
**CSU, UC**
- 225 DRAWING IV 3 UNITS**  
 Prerequisite: ART 224  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 Focuses on drawing-based artwork that results in artwork that has a personal theme or statement. Students will explore several advanced compositional devices while pursuing their themes. This class also emphasizes portfolio preparation.  
**CSU, UC**
- 230 FIGURE DRAWING I 3 UNITS**  
**(CAN ART 24)**  
 Prerequisite: ART 124  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 Utilizes the skills and concepts developed in ART 124 to address the drawing of the nude human figure. Students will learn how articulation, standard proportion, bones and muscles influence the rendering of the human form. Drawing will be done from live models with studio lighting. Emphasis on representational drawing with line and value. This course is important for anyone dealing with the human figure, i.e., drawing, painting, sculpture, photography, illustration, graphic design, fashion design, etc.  
**CSU, UC**
- 231 FIGURE DRAWING II 3 UNITS**  
 Prerequisite: ART 230  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 Builds on the concepts and skills developed in ART 230. Surface anatomy related to the bone and muscle structure of the human form is studied along with the proportions and anatomy of the human head. Students will work with achromatic and chromatic drawing mediums.  
**CSU, UC**
- 232 FIGURE DRAWING III 3 UNITS**  
 Prerequisite: ART 231  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 Concentrates on integrating the human figure into a compositional environment. Figure drawing techniques from ART 230 and 231 will be integrated into the design process.  
**CSU, UC**
- 233 FIGURE DRAWING IV 3 UNITS**  
 Prerequisite: ART 232  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 Focuses on figurative artwork that develops a personal theme or statement. Students will be asked to explore several advanced compositional devices while pursuing their themes. This class emphasizes portfolio preparation.  
**CSU**
- 235 WATERCOLOR II 3 UNITS**  
 Prerequisite: ART 135  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 Continuation of Watercolor I techniques with emphasis on creative problem solving and aesthetic compositions.  
**CSU, UC**
- 236 WATERCOLOR III 3 UNITS**  
 Prerequisite: ART 235  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 Continuation of Watercolor II skill and composition techniques. Students will develop a personal style of expression.  
**CSU, UC**
- 298 SELECTED TOPICS IN ART 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Art not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN ART 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Art not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## ASTRONOMY

- 110 DESCRIPTIVE ASTRONOMY 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Covers the development of modern astronomy and its techniques. Emphasis on the vocabulary of astronomy and the current understanding of our solar system, stellar evolution, our galaxy, and the structure of the universe.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 112 GENERAL ASTRONOMY LABORATORY 1 UNIT**  
 Prerequisite: ASTR 110 or concurrent enrollment  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours laboratory  
 Planet, stellar and lunar studies; acquaintance with constellations and astronomical coordinates; use of astronomical instruments.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 199 SPECIAL STUDIES OR PROJECTS IN ASTRONOMY 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Astronomy under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 298 SELECTED TOPICS IN ASTRONOMY 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Astronomy not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN ASTRONOMY 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Astronomy not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## AUTOMOTIVE TECHNOLOGY

- 099 INTRODUCTION TO AUTOMOTIVE TECHNOLOGY 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to present basic information about automotive systems. Taught with the consumer in mind, but also serves as an excellent introductory course for those interested in the automotive technology major.  
**CSU**
- 100 INTRODUCTION TO AUTOMOTIVE TECHNOLOGY LAB 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours laboratory  
 Basic laboratory environment designed to prepare students for entry into the Automotive Technology major. Covers repairing, servicing and basic diagnostic procedures of a typical passenger car or light truck.  
**CSU**
- 111 INTRODUCTORY TOW TRUCK OPERATOR 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture, 3 hours laboratory  
 Detailed study of tow truck operations including: vehicle and equipment operation and terminology, clearing accident scenes, working with law enforcement, reports and documentation, public safety and law enforcement calls, laws pertaining to towing, radio communication, hazardous materials and vehicle recovery operations.
- 114 ADVANCED TOW TRUCK OPERATOR 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture  
 Advanced refresher study of tow truck operations including: vehicle and equipment operation and terminology, clearing accident scenes, working with law enforcement, reports and documentation, public safety and law enforcement calls, laws pertaining to towing, radio communication, hazardous materials and vehicle recovery operations. Designed to meet CHP (TSA) certification standards effective July 1, 2003.
- 120 ENGINE PERFORMANCE I - MECHANICAL AND IGNITION SYSTEMS 5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 6 hours laboratory  
 First in a three course series dealing with engine performance. Begins with a review of basic engine mechanical systems and an introduction to vehicle emissions and computer scanners, followed by a detailed study of current ignition systems. Students will be required to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Initial preparation for ASE Engine Performance (A-8) Certification.  
**CSU**

- 121 EMISSION CONTROL LICENSE 5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 6 hours laboratory  
 Theory of operation, repair and maintenance of emission control devices with strong emphasis on laws and regulations required for licensing. Additional training covers: loaded mode dyno testing, NOx failure analysis and diagnostics, OBD II, catalytic converter testing and Oxygen sensor diagnosis with a digital storage oscilloscope (DSO). This course is approved by the State of California Bureau of Automotive Repair (BAR) and includes the Basic and Advanced clean air car courses. Designed to prepare students to take the BAR Advanced Emission Specialist Technician (EA) License test.  
**CSU**
- 122 AUTOMOTIVE ELECTRICAL SYSTEMS 5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 6 hours laboratory  
 Basic principles of electricity as applied to automobiles. Comprehensive investigation of automotive electrical systems including periodic maintenance, diagnosis, component servicing and adjustment. Students will be expected to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Preparation for ASE A-6 Certification.  
**CSU**
- 123 ENGINE PERFORMANCE II - FUEL SYSTEMS 5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: AUTO 120  
 3 hours lecture, 6 hours laboratory  
 Second in a three course series dealing with engine performance. Emphasizes the use of computers for the control of fuel and air delivery to the engine. Topics include: input and output devices, basic computer operation, closed loop fuel control, computer-assisted carburetion, computer-controlled fuel injection, turbochargers and superchargers, scan tool diagnostics, digital lab scope diagnostics, OBD II diagnostic. Students will be required to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Final preparation for ASE Engine Performance (A-8) Certification.  
**CSU**
- 124 ENGINE PERFORMANCE III - DRIVABILITY 5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: AUTO 123  
 3 hours lecture, 6 hours laboratory  
 The capstone course in a three course engine performance series. Students will utilize skills developed in the first two courses to perform drivability diagnostics on all related engine systems. Emphasis on advanced application of scan tools and digital storage oscilloscopes (DSO) in the diagnosis of hard to find system problems, especially intermittent concerns. Students will be required to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Preparation for ASE Advanced Engine Performance (L-1) Certification.  
**CSU**
- 127 ADVANCED AUTOMOTIVE ELECTRICAL SYSTEMS 5 UNITS**  
 Prerequisite: AUTO 122  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 6 hours laboratory  
 Advanced course in electrical systems designed to develop greater student performance under simulated industry conditions. Students will be expected to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Preparation for ASE A-6 Certification.  
**CSU**
- 129 INTRODUCTION TO ALTERNATIVE FUELS 3.5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 1.5 hours laboratory  
 Introductory course in the study of alternative fuels and their delivery systems for automotive and light truck application. The main focus will be centered around Compressed Natural Gas (CNG) and Liquefied Petroleum Gas (LPG) systems. Additionally, electric, hybrid and fuel cell technologies will be discussed. Topics include: environmental concerns, pros and cons of various alternative fuel options, properties and chemical structure of various alternative fuels, safety aspects of each fuel, fuel storage, fuel metering control, retrofitting, installation, and diagnosis and troubleshooting. Recommended that students have a working knowledge of automotive electricity, automotive tune-up and diagnosis, and automotive computer systems.  
**CSU**
- 130 AUTOMOTIVE BRAKES AND BRAKE LICENSE 5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 6 hours laboratory  
 Detailed study of automotive brake system service procedures. Laboratory experience covers drum and disc brake system inspection, adjustment and repair procedures. Antilock brake systems. Students will be required to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Preparation for State of California Official Brake Adjusters License and ASE A-5 Certification.  
**CSU**

- 135 ADVANCED BRAKES 5 UNITS**  
Prerequisite: AUTO 130  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture, 6 hours laboratory  
Advanced course in automotive brake systems emphasizing diagnosis. Designed to develop greater student performance under simulated industry conditions. Students will be required to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Preparation for State of California Official Brake Adjusters License and ASE A-5 Certification.  
**CSU**
- 140 FOUR WHEEL ALIGNMENT 5 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture, 6 hours laboratory  
Four wheel alignment principles as applied to checking and correcting alignment settings. Repair and replacement of suspension components, computerized steering and ride controls. Additional training in wheel balancing. Emphasis on practical experience on "live" automobiles. Students will be required to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Preparation for ASE A-4 Certification.  
**CSU**
- 145 ADVANCED FOUR WHEEL ALIGNMENT 5 UNITS**  
Prerequisite: AUTO 140  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture, 6 hours laboratory  
Advanced course in four wheel alignment emphasizing diagnosis and complete suspension system repair. Designed to develop greater student performance under simulated industry conditions. Students will be required to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Preparation for ASE A-4 Certification.  
**CSU**
- 152 DRIVE TRAIN SYSTEMS 4 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
2.5 hours lecture, 4.5 hours laboratory  
In-depth study of hydraulic power transmission and control systems used in automatic transmissions including diagnosis and overhaul of actual transmissions to precise industry standards. Plus, theory of operation, diagnosis, repair and overhaul of manual transmissions, clutches, drivelines and differentials including four wheel drive and front wheel drive. Students will be required to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Preparation for ASE A-2 and A-3 Certification.  
**CSU**
- 155 ADVANCED DRIVE TRAIN SYSTEMS 4 UNITS**  
Prerequisite: AUTO 152  
Corequisite: None  
Recommended Preparation: None  
2.5 hours lecture, 4.5 hours laboratory  
Advanced course in power drive systems emphasizing advanced diagnosis and repair of drive train systems and components. Designed to develop greater student performance under simulated industry conditions. Students will be required to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Preparation for ASE A-2 and A-3 Certification.  
**CSU**
- 160 AIR CONDITIONING AND HEATING SYSTEMS 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
2 hours lecture, 3 hours laboratory  
Study of refrigeration principles with emphasis on servicing, diagnosing, testing and repair or replacement of components. Emphasis on practical experience performing actual repairs. Students will be required to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Preparation for ASE A-7 Certification and EPA-approved CFC Technician Certification.  
**CSU**
- 165 ADVANCED AIR CONDITIONING AND HEATING SYSTEMS 3 UNITS**  
Prerequisite: AUTO 160  
Corequisite: None  
Recommended Preparation: None  
2 hours lecture, 3 hours laboratory  
Advanced course in automotive environmental control systems emphasizing advanced diagnosis and repair. Designed to develop greater student performance under simulated industry conditions. Students will be required to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Preparation for ASE A-7 Certification.  
**CSU**
- 170 ENGINE OVERHAUL 5 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture, 6 hours laboratory  
Diagnosis of engine failures, engine removal and disassembly techniques, engine cleaning and measuring practices, machining principles and assembly procedures. Emphasis on practical experience through actual shop training. Students are required to provide an auto engine for overhaul. Students will be required to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Preparation for ASE A-1 Certification.  
**CSU**

- 175 ADVANCED ENGINE OVERHAUL 5 UNITS**  
 Prerequisite: AUTO 170  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 6 hours laboratory  
 Advanced course in engine overhaul designed to develop greater student performance under simulated industry conditions. Students will be required to complete associated tasks in the shop as specified by NATEF (National Automotive Training Educational Foundation). Preparation for ASE A-1 Certification.  
**CSU**
- 176 ENGINE MACHINING 5 UNITS**  
 Prerequisite: AUTO 175  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 6 hours laboratory  
 Third course in the engine repair sequence. Student must have credit in engine overhaul and advanced engine overhaul prior to enrolling in this course. Topics include cylinder boring and honing, rod resizing, replacing valve guides and seats, thread repair, king-pin fitting, replacing wheel studs, pressing bearings, etc. Designed to prepare students for employment in the automotive machine shop field. Preparation for ASE Engine Machinist exams.  
**CSU**
- 180 AUTOMOTIVE SERVICE ADVISOR 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture  
 Prepares the student for working as a service advisor for a large independent garage or dealership. Covers service procedures, customer relations, repair orders and warranty policies.  
**CSU**
- 182 AUTOMOTIVE WORK EXPERIENCE 1-3 UNITS**  
 Prerequisite: Completion of a minimum of 10 units in Automotive Program. Must meet State guidelines for work experience.  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours paid or 4 hours unpaid work experience per week per unit  
 Students who are employed in the automotive trade full-time or part-time (paid or unpaid) and able to work the minimum required hours during the semester are eligible to enroll in this course. Assessment of student will be performed by instructor in discussion with appropriate supervisor at place of employment. Allows students to further develop skills attained in the classroom setting. *May be repeated up to 5 times for a maximum of 15 units.*  
**CSU**
- 190 ASSET-ORIENTATION, PDI AND LUBRICATION 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture, 3 hours laboratory  
 Introduction to the Ford sponsored ASSET program. Students will become familiar with dealership operations, vehicle pre-delivery inspection, and proper lubrication of the various systems of the modern automobile. Complemented by required work experience in the dealership.  
**CSU**
- 191 ASSET-BRAKES AND ALIGNMENT 7 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture, 6 hours laboratory  
 Ford ASSET course to include a detailed study of modern automotive braking systems and service procedures. The laboratory will cover drum and disc brake systems inspection, adjustment and repair procedures. Also covers four wheel alignment principles as applied to checking and correcting alignment settings. Repair and replacement of suspension components. Additional training in wheel balancing. Emphasis on practical experience on "live" automobiles. Preparation for ASE Certification. Complemented by required work experience in the dealership.  
**CSU**
- 192 ASSET-DRIVE TRAIN 8 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 5.5 hours lecture, 7.5 hours laboratory  
 Ford ASSET course encompassing the study of modern drive train systems. Includes theory of operation, diagnosis, repair and overhaul of manual transmissions, clutches, drivelines and differentials including four wheel drive and front wheel drive. The course also includes the theory of operation, diagnosis, repair and overhaul of automatic transmissions and transaxles. Current computerized control system operation and diagnosis of the drive train will be emphasized. Includes Ford Motor Company certification and preparation for ASE Certification. Complemented by work experience in the dealership.  
**CSU**
- 193 ASSET-ENGINE REPAIR 4.5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 4.5 hours laboratory  
 Ford ASSET course to include diagnosis of engine failures, engine removal and disassembly techniques, engine cleaning and measuring practices, machining principles, assembly procedures and in-car repairs. Engine design theory will be discussed. Preparation for ASE Certification. Complemented by required work experience in the dealership.  
**CSU**
- 194 ASSET-TUNE-UP AND EMISSIONS 7 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture, 6 hours laboratory  
 Ford ASSET course to include an in-depth study of tune-up and emission systems, beginning with a review of basic engine systems followed by a detailed study of tune-up and emission system diagnostic and repair procedures utilizing state of the art equipment. Includes the State of California Bureau of Automotive "120 Hour Clean Air Car Course," which fulfills requirements to enable students to take the State of California test for smog technicians. Preparation for ASE Certification. Complemented by required work experience in the dealership.  
**CSU**

- 195 ASSET–ELECTRONIC ENGINE CONTROLS 7 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
5 hours lecture, 6 hours laboratory  
Ford ASSET course to include an in-depth study of engine drivability and electronic engine controls on modern automobiles and trucks. Includes the study of basic and electronic ignition systems, early and modern fuel systems, and the repair and diagnosis of these systems. Emphasis on electronic engine control system theory of operation and repair to include discussion of sensors, processors and actuators, and system diagnosis and repair. On-board computer logic and strategies will also be presented. Preparation for ASE Certification. Students who successfully complete this course will receive Ford Motor Company certification in Electronic Engine Control and Diesel Engine Performance Diagnosis.  
**CSU**
- 196 ASSET–ELECTRICAL, ACCESSORIES AND AIR CONDITIONING 5 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
4 hours lecture, 3 hours laboratory  
Ford ASSET course to include electrical systems, theory, diagnosis and repair procedures utilizing state of the art equipment. Systems covered will be storage, generating and starting. Coverage of accessory systems such as lighting, power seats, power door locks, cruise controls, electric windows, electronic dashboards, radios, windshield wipers, etc. Also covered are all major topics dealing with automotive air conditioning including refrigeration theory, system evacuation and recovery, leak repair, compressor repair, component replacement, and manual and automatic temperature control. Preparation for ASE Certification. Complemented by required work experience in the dealership.  
**CSU**
- 197 ASSET–WORK EXPERIENCE 1-3 UNITS**  
Prerequisite: Admission to the ASSET program  
Corequisite: None  
Recommended Preparation: None  
75 hours paid work experience per unit  
Ford ASSET work experience. Students will be placed with sponsoring dealer at start of training program. The course is based on paid work experience at the sponsoring dealership. Assessment of student will be performed by ASSET coordinator in discussion with appropriate dealership personnel. Student is expected to work in the area of emphasis that is concurrent with area of training most recently completed at the college. Allows students to further develop skills attained in classroom setting. *Must be repeated 5 times for a total of 13 units.*  
**CSU**
- 199 SPECIAL STUDIES OR PROJECTS IN AUTOMOTIVE TECHNOLOGY 1-3 UNITS**  
Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
3-9 hours  
Individual study, research or projects in Automotive Technology under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 200 ASEP–ORIENTATION 1 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
1 hour lecture  
Introduction to the General Motors sponsored ASEP program. Students will become familiar with dealer operations. Complemented by required work experience in a dealership.  
**CSU**
- 201 ASEP–ELECTRICAL 6 UNITS**  
Prerequisite: AUTO 200  
Corequisite: None  
Recommended Preparation: None  
4 hours lecture, 6 hours laboratory  
General Motors ASEP course to include electrical systems, theory, diagnosis and repair procedures utilizing state of the art equipment. Major topics include electrical laws, batteries, starting and charging systems, wiring diagrams, and introduction to computer controls. Coverage of accessory systems such as lighting, power seats, power door locks, cruise controls, electric windows, electronic dashboards, radios, windshield wipers, etc. Preparation for ASE and GM certification. Complemented by required work experience in a dealership.  
**CSU**
- 202 ASEP–BRAKES AND ALIGNMENT 7 UNITS**  
Prerequisite: AUTO 200  
Corequisite: None  
Recommended Preparation: None  
5 hours lecture, 6 hours laboratory  
General Motors ASEP course to include a detailed study of modern automotive braking systems and service procedures, including two and four wheel electronic anti-lock brake system operation and repair. Laboratory experience will cover drum and disc brake system inspection, adjustment and repair procedures. Also covers modern suspension and steering systems including electronic ride control, steering, and four wheel alignment principles as applied to checking and correcting alignment settings. Repair and replacement of suspension components. Additional training in wheel balancing. Emphasis on practical experience on "live" automobiles. Preparation for ASE and GM certification. Complemented by required work experience in a dealership.  
**CSU**

- 203 ASEP–ENGINE REPAIR 4.5 UNITS**  
 Prerequisite: AUTO 200  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 4.5 hours laboratory  
 General Motors ASEP course to include diagnosis of engine failures, engine removal and disassembly techniques, engine cleaning and measuring practices, machining principles, and assembly procedures in car repairs. Engine design theory will be discussed. Preparation for ASE and GM certification. Complemented by required work experience in a dealership.  
**CSU**
- 204 ASEP–POWER TRAIN 7 UNITS**  
 Prerequisite: AUTO 200  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture, 6 hours laboratory  
 General Motors ASEP course to include an in-depth study of hydraulic power transmission and control systems used in automatic transmissions, including diagnosis and overhaul of actual transmissions to precise industry standards. Plus, theory of operation, diagnosis, repair and overhaul of manual transmissions, clutches, drivelines and differentials including four wheel drive and front wheel drive. Preparation for ASE and GM certification. Complemented by required work experience in a dealership.  
**CSU**
- 205 ASEP–ENGINE PERFORMANCE AND AIR CONDITIONING 7 UNITS**  
 Prerequisite: AUTO 200  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture, 6 hours laboratory  
 General Motors ASEP course to include a detailed study of electronic engine controls on modern automobiles. Emphasis on electronic engine control system theory of operation and repair to include discussion of sensors, processors and actuators, and system diagnosis and repair. On-board computer logic and strategies will be presented. Also covers all major topics dealing with automotive air conditioning including refrigeration theory, system evacuation and recovery, leak repair, compressor repair, component replacement, and manual and automatic temperature control. Preparation for ASE and GM certification. Complemented by required work experience in a dealership.  
**CSU**
- 206 ASEP–WORK EXPERIENCE 1-4 UNITS**  
 Prerequisite: AUTO 200  
 Corequisite: None  
 Recommended Preparation: None  
 75 hours paid work experience per unit  
 General Motors ASEP work experience. Students will be placed with sponsoring dealer at start of training program. This course is based on paid work experience at the sponsoring dealership. Assessment of student will be performed by ASEP coordinator in discussion with appropriate dealership personnel. Student is expected to work in the area of emphasis that is concurrent with area of training most recently completed at the college. Allows students to further develop skills attained in the classroom setting. *Must be repeated for a total of 15 units.*  
**CSU**
- 298 SELECTED TOPICS IN AUTOMOTIVE TECHNOLOGY 1-8 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-24 hours  
 Selected topics in Automotive Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN AUTOMOTIVE TECHNOLOGY 1-8 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-24 hours  
 Selected topics in Automotive Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## BIOLOGICAL SCIENCES

- 112 CONTEMPORARY ISSUES IN ENVIRONMENTAL RESOURCES 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Through the scientific study of basic concepts in ecology, students apply their knowledge and scientific reasoning to the study of contemporary problems dealing with renewable and nonrenewable resources. Environmental resource problems involving air, water, energy, human population growth, and plant and animal diversity are examined in context of their scientific, political, economic and social implications. Alternatives for resolving existing problems and preventing future ones will be examined.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 115 BIOLOGY OF ALCOHOL AND OTHER DRUGS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Study of the biological principles underlying the effects of the major legal and illegal drugs on the human body. Survey of the commonly abused drugs with regard to their chemical nature, where and how they act and the factors that modify their effects.  
**AA/AS GE, CSU, CSU GE**
- 122 PLANT STRUCTURES AND FUNCTIONS 4 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 3 hours laboratory  
 Structural and functional aspects of plants with emphasis on seed producers and applications to horticulture. Includes fundamentals of plant biology, primary and secondary body plan, photosynthesis and respiration, growth and development, water relations and phloem transport, cellular and organismic reproduction, plant heredity and evolution.  
**AA/AS GE, CSU, CSU GE**
- 126 INTRODUCTION TO BIOTECHNOLOGY 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Comprehensive look at how the use of living organisms or their products can enhance our lives and impact society. Fundamentals of molecular biology and immunology, historical review of the developments leading to modern biotechnology, studies of the development and manufacturing of biotechnology products based on the isolation, analysis and manipulation of genes, and applications of the technological developments will be evaluated in their social, legal and ethical contexts  
**AA/AS GE, CSU, UC**
- 128 PRINCIPLES OF BIOLOGY FOR FUTURE EDUCATORS 4 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 3 hours laboratory  
 This course addresses the major principles underlying all of biology with an emphasis on evolution, inheritance, cellular life, biodiversity, ecology, and behavior of living organisms. Designed to prepare prospective educators to evaluate their own learning strategies while gaining biological content knowledge, and to explore ways to incorporate biology content into K-12 curricula. Incorporates some of the National Science Education Standards (NSES) for undergraduate professional preparation of teachers. *Not open to students with credit in BIO 130 and 131 or BIO 210, 220 and 221.*  
**AA/AS GE, CSU, CSU GE, IGETC, UC, UC credit limit**
- 130 GENERAL BIOLOGY I 3 UNITS**  
**(CAN BIOL 2 = BIO 130+131)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Survey of basic biological principles with particular emphasis on the molecular and cellular aspects of the organism. The unifying concepts of biology such as organization, metabolism, genetics and evolution are discussed. *Meets transfer requirements for non-majors.*  
**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**
- 131 GENERAL BIOLOGY I LABORATORY 1 UNIT**  
**(CAN BIOL 2 = BIO 130+131)**  
 Prerequisite: BIO 130 or concurrent enrollment  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours laboratory  
 Laboratory experiments on the basic biological principles with particular emphasis on the molecular and cellular aspects of the organism. *Meets transfer requirements for non-majors.*  
**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**
- 140 HUMAN ANATOMY 5 UNITS**  
 Prerequisite: BIO 130 and 131 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 6 hours laboratory  
 Students will embark on a study of the systems of the human body. This is accomplished through a study of the organization of the body's systems from a microscopic level of organization to the gross anatomy level. In addition, the relationship between structure and function will be examined through the study of histological slides, photomicrographs, anatomical models and charts, and mammalian (cat) dissection.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 141 HUMAN PHYSIOLOGY 3 UNITS**  
 Prerequisite: BIO 130, 131  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Study of the function and interrelationships of the nervous, endocrine, muscular, circulatory, respiratory, digestive, exocrine and reproductive systems of the human body. Emphasizes the homeostatic nature of these systems with some reference to human disease states.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

- 198 SUPERVISED TUTORING 0 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 TBA hours  
 Uses a variety of educational tools to assist students with various learning needs. Can be used to strengthen prerequisite skills prior to enrolling in a specific course or to receive supplemental assistance while concurrently enrolled in another course. *May be repeated with different content.*  
**No fee/no credit course.**
- 199 SPECIAL STUDIES OR PROJECTS IN BIOLOGY 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Biology under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 210 BIOLOGY II 4 UNITS**  
 Prerequisite: MATH 103 or 110 with a grade of "C" or better or "CR" or an equivalent intermediate algebra course  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 3 hours laboratory  
 Study of the origin and nature of the different forms of life utilizing evolution as a unifying theme and presenting organismal diversity within a phylogenetic framework. The relationships of environment and lifestyles to form and function will be explored through examination of comparative structure and the physiology, nutrition, circulation, gas exchange, reproduction and development of organisms found in the three domains of life.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 215 STATISTICS FOR LIFE SCIENCES 3 UNITS**  
 Prerequisite: MATH 110 or equivalent and BIO 130 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Methods and experience in defining and solving quantitative problems in the life sciences. Emphasis on the design of experiments and the application of a variety of parametric and nonparametric techniques to the analysis of data.  
**CSU, CSU GE, IGETC, UC, UC credit limit**
- 220 PRINCIPLES OF MOLECULAR, CELLULAR AND EVOLUTIONARY BIOLOGY 3 UNITS**  
 Prerequisite: CHEM 141 or equivalent  
 Corequisite: BIO 221  
 Recommended Preparation: None  
 3 hours lecture  
 Study of the unifying principles of life manifested by cellular structures, functions and evolutionary history. Emphasis on the following topics: cellular processes including energy metabolism, membrane transport and cell division; classical and molecular genetics including recombinant DNA; communication between cells; population genetics and the mechanism of evolution; and the evolutionary basis of species classification. This course, along with BIO 210, is the recommended two-semester sequence for biology majors (BIO 210 is NOT a prerequisite for this course).  
**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**
- 221 PRINCIPLES OF MOLECULAR, CELLULAR AND EVOLUTIONARY BIOLOGY LABORATORY 1 UNIT**  
 Prerequisite: CHEM 141 or equivalent  
 Corequisite: BIO 220  
 Recommended Preparation: None  
 3 hours laboratory  
 Investigates some of the general principles of biology presented in BIO 220, allowing students to observe examples of the phenomena using live materials where possible and providing the opportunity to apply concepts learned in BIO 220. Students conduct laboratory exercises which involve observations, demonstrations, experiments, data analyses, computer laboratory simulations and written reports.  
**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**
- 298 SELECTED TOPICS IN BIOLOGY 1-5 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-15 hours  
 Selected topics in Biology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN BIOLOGY 1-5 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-15 hours  
 Selected topics in Biology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## BUSINESS

- 105 CONTACT CENTER AND HELP DESK PROCEDURES 2.5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 2 hours laboratory  
 Many entry-level Information Technology (IT) positions are in customer service and support, providing new employees with an understanding of the company's organization, products and customers. This class introduces students to general troubleshooting and customer service procedures along with the basic skills required to become employed as a Help Desk and/or Contact Center Representative. Students will practice typing at least 25 words per minute with 90% accuracy. Topics include telephone procedures, troubleshooting over the telephone or via e-mail, greeting customers, handling difficult customers, effective communication, teamwork, finding solutions, effective time management, and basic business e-mail polices. Utilizes multiple customer simulation software applications to replicate a customer service help desk environment. Includes attendance guidelines, basic e-mail skills, basic business etiquette, effective troubleshooting procedures, and upgrade selling when appropriate to solve computer and networking problems. Basic keyboard and computer skills are helpful but not mandatory. This class is NOT outbound telemarketing.  
**CSU**
- 106 PROVIDING QUALITY SERVICE 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture  
 Provides an overview of the major components of providing quality client service in government, business and non-profit sectors. Topics include developing client profiles, setting quality service objectives, and acquiring a customer service perspective. Case studies and role playing situations will be experienced.  
**CSU**
- 109 ELEMENTARY ACCOUNTING 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 One-semester introduction to elementary accounting principles. Includes journals, ledgers, worksheets and financial statements for the single proprietorship. Designed for the clerical employee or for those who do not intend further study of accounting. *(May not be substituted for BUS 120 where required. Not open to students with credit in BUS 120.)*  
**CSU**
- 110 INTRODUCTION TO BUSINESS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Provides a comprehensive view of today's dynamic American business and the global economy. Topics include starting a small business, satisfying customers, managing operations, motivating employees and building self-managed teams, developing and implementing customer-oriented marketing plans, managing information, managing financial resources, and exploring ethical and social responsibilities of American business.  
**CSU, UC**
- 111 ENTREPRENEURSHIP: STARTING AND DEVELOPING A BUSINESS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to provide the prospective small business manager with the most up-to-date skills necessary in the planning function of opening one's own business. Emphasis on sources of financing, site locations, legal problems, marketing surveys, organizational structure, and self-analysis to determine one's personal readiness for entrepreneurship.  
**CSU**
- 112 ENTREPRENEURSHIP: SUCCESSFUL MARKETING 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to provide the small business owner with the necessary skills to market a product or service. Examines the essential elements of a marketing strategy, the four P's: Product, Place (Distribution), Price and Promotion. Also examines the relationship between sales and marketing and how they function together in the small business environment.  
**CSU**
- 114 EFFECTIVE JOB SEARCH 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture  
 Provides comprehensive and valuable skills that are needed to successfully secure employment. Designed to examine the continuous process of career/life planning through effective, well-planned and efficiently organized job search procedures.  
**CSU**
- 115 HUMAN RELATIONS IN BUSINESS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Covers the human aspects of the organization and the role of the individual within the organization. Emphasis on the role of the individual in the formal and informal structure of the organization, leadership and group dynamics, motivation, job enrichment, organizational change and communications—both verbal and nonverbal—within the organization.  
**CSU**

- 119 ENTREPRENEURSHIP: FINANCING AND WRITING A BUSINESS PLAN 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to provide prospective small business owners or managers with the knowledge required to write a business plan and to understand and control the cash management function of their business. Emphasis on the types of financing, understanding debt vs. equity financing, cash flow analysis, borrowing and investment, forecasting and budgeting.  
**CSU**
- 120 FINANCIAL ACCOUNTING 4 UNITS**  
**(CAN BUS 2; CAN BUS SEQ A = BUS 120+121)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture  
 Introduces students to the accounting function and how it is used within our economic society. Views accounting as an information-generating system that communicates financial data to support end users in their economic decision-making. Includes the theory and concepts of accounting, as well as their application to the recording of financial information for the three types of business organizations: sole proprietorship, partnership and corporation. Emphasis is on the corporate form of organization.  
**CSU, UC**
- 121 MANAGERIAL ACCOUNTING 4 UNITS**  
**(CAN BUS 4; CAN BUS SEQ A = BUS 120+121)**  
 Prerequisite: BUS 120 with a grade of "C" or better or "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture  
 Introduces students to the concepts, methods and procedures for the development and use of accounting information to support and assist management in their internal cost accounting processes and financial decision-making. Includes the theory and concepts of cost accounting, use of financial and accounting information for planning, budgeting and control of operations, and methods and analysis to assist managerial accountants in decision-making activities.  
**CSU, UC**
- 122 INTERMEDIATE ACCOUNTING 4 UNITS**  
 Prerequisite: BUS 120  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture  
 In-depth study of accounting theories and principles underlying financial statements and the determination of net income. Survey of basic accounting principles. Study of corporate balance sheet items and the analytical processes of statement preparation which include funds-flow and cash-flow reporting.  
**CSU, UC**
- 124 AUDITING 3 UNITS**  
 Prerequisite: BUS 120  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Study of the role of the auditor in the American economy including the general principles and concepts of auditing duties, ethics, liability and responsibilities of the auditor, and procedures for verification of financial statements including EDP statements.  
**CSU**
- 125 BUSINESS LAW: LEGAL ENVIRONMENT OF BUSINESS 3 UNITS**  
**(CAN BUS 12)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Legal environment of business, sources of law, constitutional bases of regulation, social and ethical influences, corporate responsibility, judicial and administrative systems, contracts, torts, agency, business organizations, bankruptcy, securities regulation, regulation of property and protection of intellectual property interests, consumer protection, regulation of business to prevent market failures.  
**CSU, UC**
- 128 BUSINESS COMMUNICATION 3 UNITS**  
 Prerequisite: ENGL 110 or ESL 106  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Development of the ability to analyze, organize, and compose various types of written and oral business communications with emphasis on the writing of clear, concise and persuasive letters, memos and reports. Note: All assignments must be typed.  
**CSU**
- 129 PAYROLL ACCOUNTING AND BUSINESS TAXES 2 UNITS**  
 Prerequisite: BUS 120  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture  
 Provides students with an in-depth understanding of payroll accounting. Includes calculations of gross to net pay, coverage of federal and state withholdings and deductions, recording of payroll transactions into the accounting records, and filing of federal and state payroll tax forms. Also includes consideration of factors which determine employee versus independent contractor status, and coverage of business taxes such as sales and property taxes and their filing requirements.  
**CSU**
- 141 ENTREPRENEURSHIP: MANAGING A NEW BUSINESS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to help students apply theories of marketing, management, personnel, finance and production to problems encountered daily in managing a business. Focuses on practical solutions to common business management problems.  
**CSU**

- 146 MARKETING 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Focuses on the function of marketing in an organization. Examines the essential elements of a marketing strategy: product, promotion, distribution, price, the effect of the business environment on marketing decisions, consumer behavior, identification of markets and current issues in marketing.  
**CSU**
- 150 INDIVIDUAL INCOME TAX ACCOUNTING 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introduces students to federal taxation and focuses on tax preparation as applied to the individual taxpayer. Includes an overview of the income tax environment. Topics include filing status, personal and dependency exemption, itemized and standard deductions, and solving specific problems related to the filing of the Federal Form 1040.  
**CSU**
- 154 DIVERSITY IN THE WORKPLACE 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Teaches students about the historical perspective of diversity in the workplace; motivates them in defining and developing a manager's responsibilities as it relates to diversity in the workplace; explores and sensitizes students to the unique problems of diversity in the workplace; and assists them in developing effective solutions to problems.  
**CSU**
- 155 HUMAN RESOURCES MANAGEMENT 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introduction to the management of human resources and an understanding of the impact and accountability to the organization of human resource activities. Global human resource strategies; social and organizational realities; legal implications affecting people at work; union/non-union practices; employee compensation and benefits; employee rights; safety issues.  
**CSU**
- 156 PRINCIPLES OF MANAGEMENT 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Planning, organizing, directing and controlling for management. Interaction of the functions includes setting objectives, MBO, decision-making tools, alternative organization structures, leadership, motivation, communication, group dynamics, management of stress and change, time management, and women in management. Survey of the quantitative tools available to the manager.  
**CSU**
- 157 PRINCIPLES OF LEADERSHIP 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Develops insight into the multiplicity of roles and responsibilities which the leader must fulfill, focusing on personal, work and social environments. Deals with leadership as a function of selecting, motivating and directing others toward an agreed upon goal.  
**CSU**
- 159 MANAGEMENT INTERNSHIP 3 UNITS**  
**ABCD** Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 225 hours paid or 180 hours unpaid work experience  
 Field work in management. Students will be required to maintain a diary of their weekly activities and submit a comprehensive report of their observations upon completion. Students will meet at least once during the semester to compare field experiences and submit paperwork.  
**CSU**
- 162 ANALYSIS OF FINANCIAL STATEMENTS 3 UNITS**  
 Prerequisite: BUS 120  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to explore the characteristics of financial statements, to analyze the reported results, and to place the findings from such an analysis in proper perspective. Students will learn how to apply ratios to financial statements, and to interpret their outcomes in order to draw various inferences and/or conclusions from their results.  
**CSU**
- 176 COMPUTERIZED ACCOUNTING APPLICATIONS 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture, 3 hours laboratory  
 Beginning course in small business accounting using QuickBooks software. Especially beneficial to students, teachers and professionals who are using, or plan to use, personal computers to create a chart of accounts, record customer and vendor transactions, process payroll, and print reports.  
**CSU**
- 195 FAMILY INCOME MANAGEMENT 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Management of personal income and expenditures for the individual and the family throughout the life cycle, through awareness of values, goals and the decision-making process. Advertising, consumer protection, purchasing skills and consumer laws will be covered as they apply to use of credit, housing, risk protection, health care, food, clothing and transportation. Money management and financial planning will include budgeting, institutional savings and checking services, investments, taxes and estate planning. The impact of inflation, business cycle and other current issues will be included.  
**CSU**

**199 SPECIAL STUDIES OR PROJECTS IN BUSINESS 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours

Individual study, research or projects in Business under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**240 SQL FOR BUSINESS APPLICATIONS 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 140 or equivalent  
 2 hours lecture, 3 hours laboratory

This course covers Structured Query Language (SQL) that provides a unified language that lets you query, manipulate or control data in a business applications environment. This hands-on course provides basic knowledge of how to extract data from databases including Oracle and Microsoft SQL Server using SQL, Transact-SQL, SQL\*Plus, and PL/SQL. It covers topics necessary to query data for use in typical business applications analysis from an Oracle9i/10g or Microsoft SQL Server database.

**242 DATA MINING 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 140 or equivalent  
 2 hours lecture, 3 hours laboratory

This class provides an introduction to the fundamental concepts of data mining. The class will explore motivation for and applications of data mining and survey current techniques and models used in data mining. Data mining development cycle and potential pitfalls of machine learning will also be covered.

**298 SELECTED TOPICS IN BUSINESS 1-4 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours

Selected topics in Business not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN BUSINESS 1-4 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours

Selected topics in Business not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

**BUSINESS OFFICE TECHNOLOGY****095 KEYBOARDING SKILL REINFORCEMENT 1 UNIT**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours laboratory

Designed for students who have completed BOT 100 and want to reinforce their skills before advancing to the next level of keyboarding. Begins with a keyboard review, then progresses to practice and timings designed to improve keyboarding speed and accuracy. **Credit/No Credit only. Non-associate degree applicable.**

**096 COMPUTER BASICS FOR THE OFFICE 1 UNIT**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: BOT 100 or equivalent and ENGL 098R or ESL 105 or equivalent reading level  
 .5 hour lecture, 1.5 hours laboratory

Designed to give students with little or no computer experience the basic information and skills needed to operate a computer efficiently in an office environment. Includes overview of the components of a computer system hardware and software, proficiency in using a mouse, storing information, using the Internet, and purchasing and maintaining a computer. Recommended that students complete a basic keyboarding course prior to enrolling in this course. **Credit/No Credit only. Non-associate degree applicable.**

**097 WINDOWS BASICS FOR THE OFFICE 1 UNIT**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: BOT 100 or equivalent, BOT 096 or concurrent enrollment or equivalent, and ENGL 098R or ESL 105 or equivalent reading level  
 .5 hour lecture, 1.5 hours laboratory

Designed for students with little or no computer experience. Students will learn to use the Windows operating system efficiently to create and manage files and folders. **Credit/No Credit only. Non-associate degree applicable.**

**100 BASIC KEYBOARDING 1 UNIT**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: ENGL 098R or ESL 105 or equivalent reading level  
 3 hours laboratory

Beginning keyboarding techniques for students who wish to use keyboarding skills for inputting information on computers. Taught on computers using appropriate software. Emphasis on the development of speed and accuracy by use of touch keyboarding methods, development of touch skills on the 10-key pad, understanding of basic vocabulary and concepts used in keyboarding operations for inputting and retrieving information, and composition at the keyboard. For students with physical disabilities that may impair proficiency, emphasis will be on the quality of output instead of speed, and on the use of alternative input devices.

**CSU**

- 101A KEYBOARDING/DOCUMENT PROCESSING** **1.5 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: BOT 100 with a grade of "C" or better or "CR" or equivalent, and ENGL 098R or ESL 105 or equivalent reading level  
1 hour lecture, 1.5 hours laboratory  
Equivalent to the first half of BOT 101. Focuses on learning or reviewing the alphabetic and numeric keyboard including the 10-key pad for numeric data entry. Students will learn basic features of Microsoft Word to produce simple memos, letters and reports. Keyboarding software will be used to build speed and accuracy. Students wishing to progress to BOT 102AB should also complete BOT 101B. *Not open to students with credit in BOT 101.*  
**CSU**
- 101B KEYBOARDING/DOCUMENT PROCESSING** **1.5 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: BOT 101A or equivalent and ENGL 098R or ESL 105 or equivalent reading level  
.5 hour lecture, 3 hours laboratory  
Equivalent to the second half of BOT 101. Students will use Microsoft Word to produce correctly formatted and accurate business documents including letters, reports and tables. Students will also use keyboarding software to build speed and accuracy. *Not open to students with credit in BOT 101.*  
**CSU**
- 102A INTERMEDIATE KEYBOARDING/ DOCUMENT PROCESSING I** **1.5 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: BOT 101 or 101AB with a grade of "C" or "CR" or equivalent  
1 hour lecture, 1.5 hours laboratory, 1.5 units  
Equivalent to the first half of BOT 102. Students review and create business documents to apply formatting skills taught in BOT 101 or 101AB, and then are introduced to new formatting and report styles options including agendas, formal reports and multipage tables. This course begins with intermediate Microsoft Word functions so entering students should be proficient in using basic Word features and should key a minimum of 30 net words per minute on a 5-minute timed writing. *Not open to students with credit in BOT 102.*  
**CSU**
- 102B INTERMEDIATE KEYBOARDING/ DOCUMENT PROCESSING II** **1.5 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: BOT 102A with a grade of "C" or "CR"  
.5 hour lecture, 3 hours laboratory  
Equivalent to the second half of BOT 102. Students continue to create business documents, applying new formatting skills including using templates, designing letterheads and office forms, and learning specialized applications such as medical and legal forms. This course begins with intermediate Microsoft Word functions so entering students should be proficient in using basic Word features and should key a minimum of 35 net words per minute on a 5-minute timed writing. *Not open to students with credit in BOT 102.*  
**CSU**
- 103A BUILDING KEYBOARDING SKILL I** **.5 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: BOT 100 or equivalent  
1.5 hours laboratory  
Designed for students who have completed a keyboarding course but wish to work further on developing speed and accuracy. Students should know the alphabetic keyboard by touch and key at a minimum rate of 20 net words per minute on a 5-minute timed writing. Students keying at a lower rate should enroll in BOT 095.  
**CSU**
- 103B BUILDING KEYBOARDING SKILL II** **.5 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: BOT 103A or equivalent  
1.5 hours laboratory  
Continuation course in building keyboarding speed and accuracy. Students should be keying by touch at a minimum rate of 30 net words per minute on a 5-minute timed writing. Students keying at a lower rate should enroll in BOT 103A.  
**CSU**
- 103C BUILDING KEYBOARDING SKILL III** **.5 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: BOT 103B or equivalent  
1.5 hours laboratory  
Continuation course in building keyboarding speed and accuracy. Entering students should be keying by touch at a minimum rate of 40 net words per minute on a 5-minute timed writing. Students keying at a lower rate should enroll in BOT 103B.  
**CSU**
- 104 FILING AND RECORDS MANAGEMENT** **1 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: ENGL 098R or ESL 105 or equivalent reading level  
.5 hour lecture, 1.5 hours laboratory  
Instruction in the Association of Records Managers and Administrators (ARMA) filing rules and techniques which are widely used in business to create and maintain files. Alphabetic, numeric, geographic and subject filing rules are included. Also includes instruction in records management including rules for retention, transfer and disposition of records. Students use a microcomputer software package to learn basic filing rules.  
**CSU**
- 105 DATA ENTRY SKILLS** **1 UNIT**  
Prerequisite: BOT 100 with a grade of "C" or better or "CR" or equivalent  
Corequisite: None  
Recommended Preparation: BOT 096  
.5 hour lecture, 1.5 hours laboratory  
Designed for students who wish to prepare for employment in the data entry field. Emphasis on development of speed and accuracy in the use of the microcomputer alphabetic keyboard and numeric keypad to reach employable levels of skill. Students will complete assignments, drills, and timed speed and accuracy tests.  
**CSU**

**107 OFFICE SYSTEMS AND PROCEDURES 2 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: BOT 096 and 097, 101AB or equivalent or concurrent enrollment, and ENGL 098R or ESL 105 or equivalent reading level

2 hours lecture

Includes office ethics and professionalism; prioritizing and productivity; human relations; working in teams; customer service skills; telephone skills; scheduling appointments; using email, copiers, fax machines and scanners; handling office mail; and using the Internet for common office functions such as travel reservations and ordering supplies.

**CSU****108 USING CALCULATORS TO SOLVE BUSINESS PROBLEMS 1 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: ENGL 098R or ESL 105 or equivalent reading level

.5 hour lecture, 1.5 hours laboratory

Introduces the 10-key, digital display electronic calculator. Students will build skill in performing fundamental arithmetic operations using a calculator. Topics include use of decimals, fractions, constants, discounts, percentages and memory keys.

**CSU****114 ESSENTIAL WORD 1 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: BOT 096 and 097, 101AB or equivalent, and ENGL 098R or ESL 105 or equivalent reading level

.5 hour lecture, 1.5 hours laboratory

Designed for students who want to learn the most commonly used features of a current popular word processing software package. Upon completion, students will be proficient in using text editing and formatting commands to produce typical business documents, and in using the mail merge feature to produce form letters, labels and envelopes. Students who wish to study word processing software in more depth should consider enrolling in BOT 120, 121, 122. (Specific software versions to be identified in class schedule.) *Not open to students with credit in BOT 121 or 122.*

**CSU****115 ESSENTIAL EXCEL 1 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: BOT 096, 097 and 100 or equivalent, and ENGL 098R or ESL 105 or equivalent reading level

.5 hour lecture, 1.5 hours laboratory

Designed for students who want to become proficient in the most commonly used features of Microsoft Excel. Basic spreadsheet concepts and terms will be introduced. Students will learn how to create, format and revise spreadsheets and charts, and to create basic formulas and templates. The use of simple macros will be introduced. Students who desire more in-depth coverage of these and additional topics should consider enrolling in BOT 123, 124, 125. *Not open to students with credit in BOT 124 or 125.*

**CSU****116 ESSENTIAL ACCESS 1 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: BOT 096, 097 and 100 or equivalent, and ENGL 098R or ESL 105 or equivalent reading level

.5 hour lecture, 1.5 hours laboratory

Designed for students who want to become proficient in the most commonly used features of Microsoft Access. Basic database concepts and terms will be introduced. Students will learn how to create, format, edit and revise simple databases, to sort and filter records, to use queries, and to create forms, reports and labels. Students who desire more in-depth coverage of these and additional topics should consider enrolling in CIS 140 or BOT 126, 127, 128. *Not open to students with credit in BOT 127 or 128.*

**CSU****117 ESSENTIAL POWERPOINT 1 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: BOT 096, 097 or equivalent, BOT 114 or equivalent, and ENGL 098R or ESL 105 or equivalent reading level

.5 hour lecture, 1.5 hours laboratory

Designed for students who want to become proficient in the most commonly used features of Microsoft PowerPoint. Basic concepts and terms will be introduced. Students will learn how to create, format and revise PowerPoint presentations, including animation effects. Students who desire more in-depth coverage of these and additional topics should consider enrolling in BOT 129, 130, 131. *Not open to students with credit in BOT 130 or 131.*

**CSU****118 INTEGRATED OFFICE PROJECTS 1 UNIT**

Prerequisite: BOT 102AB, 107, 115, 116, 117 with a grade of "C" or better or "CR" or equivalent

Corequisite: None

Recommended Preparation: ENGL 098R or ESL 105 or equivalent reading level

3 hours laboratory

Capstone course designed for BOT majors who have completed prerequisite courses in all applications of the Microsoft Office suite (Word, Excel, Access, PowerPoint) and have keyboarding skills of a minimum 40 net words per minute. Students will apply their skills to complete projects that integrate these applications. Students will also use the Internet to complete projects.

**CSU****120 COMPREHENSIVE WORD, LEVEL I 1 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: BOT 096, 097 or equivalent, BOT 101AB or equivalent, and ENGL 098R or ESL 105 or equivalent reading level

.5 hour lecture, 1.5 hours laboratory

First in a three-level course sequence designed to give students thorough coverage of most features of Microsoft Word. Students who complete all three levels will be prepared to take the Microsoft Office User Specialist (MOUS) certification examination or similar examinations. Students wishing less comprehensive coverage of Word should consider enrolling in BOT 114.

**CSU**

- 121 COMPREHENSIVE WORD, LEVEL II 1 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: BOT 120 or equivalent  
.5 hour lecture, 1.5 hours laboratory  
Second in a three-level course sequence designed to give students thorough coverage of most features of Microsoft Word. Students who complete all three levels will be prepared to take the Microsoft Office User Specialist (MOUS) certification examination or similar examinations.  
**CSU**
- 122 COMPREHENSIVE WORD, LEVEL III 1 UNIT**  
Prerequisite: BOT 121 with a grade of "C" or better or "CR" or equivalent  
Corequisite: None  
Recommended Preparation: None  
.5 hour lecture, 1.5 hours laboratory  
Third in a three-level course sequence designed to give students thorough coverage of most features of Microsoft Word. Students who complete all three levels will be prepared to take the Microsoft Office User Specialist (MOUS) certification examination or similar examinations. Students should consider enrolling in BOT 280 prior to taking the examination.  
**CSU**
- 123 COMPREHENSIVE EXCEL, LEVEL I 1 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: BOT 096, 097, 100 or equivalent  
.5 hour lecture, 1.5 hours laboratory  
First in a three-level course sequence designed to give students thorough coverage of most features of Microsoft Excel. Students who complete all three levels will be prepared to take the Microsoft Office User Specialist (MOUS) certification examination or similar examinations. Students wishing less comprehensive coverage of Excel should consider enrolling in BOT 115.  
**CSU**
- 124 COMPREHENSIVE EXCEL, LEVEL II 1 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: BOT 123 or equivalent  
.5 hour lecture, 1.5 hours laboratory  
Second in a three-level course sequence designed to give students thorough coverage of most features of Microsoft Excel. Students who complete all three levels will be prepared to take the Microsoft Office User Specialist (MOUS) certification examination or similar examinations.  
**CSU**
- 125 COMPREHENSIVE EXCEL, LEVEL III 1 UNIT**  
Prerequisite: BOT 124 with a grade of "C" or better or "CR" or equivalent  
Corequisite: None  
Recommended Preparation: None  
.5 hour lecture, 1.5 hours laboratory  
Third in a three-level course sequence designed to give students thorough coverage of most features of Microsoft Excel. Students who complete all three levels will be prepared to take the Microsoft Office User Specialist (MOUS) certification examination or similar examinations. Students should consider enrolling in BOT 281 prior to taking the examination.  
**CSU**
- 126 COMPREHENSIVE ACCESS, LEVEL I 1 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: BOT 096, 097, 100 and 116 or equivalent, and ENGL 098R or ESL 105 or equivalent reading level  
.5 hour lecture, 1.5 hours laboratory  
First in a three-level course sequence designed to give students thorough coverage of most features of Microsoft Access. Students who complete all three levels will be prepared to take the Microsoft Office User Specialist (MOUS) certification examination or similar examinations. Students wishing less comprehensive coverage of Access should consider enrolling in BOT 116.  
**CSU**
- 127 COMPREHENSIVE ACCESS, LEVEL II 1 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: BOT 126 or equivalent  
.5 hour lecture, 1.5 hours laboratory  
Second in a three-level course sequence designed to give students thorough knowledge of most features of Microsoft Access. Students who complete all three levels will be prepared to take the Microsoft Office User Specialist (MOUS) certification examination or similar examinations.  
**CSU**
- 128 COMPREHENSIVE ACCESS, LEVEL III 1 UNIT**  
Prerequisite: BOT 127 with a grade of "C" or better or "CR" or equivalent  
Corequisite: None  
Recommended Preparation: None  
.5 hour lecture, 1.5 hours laboratory  
Third in a three-level course sequence designed to give students thorough knowledge of most features of Microsoft Access. Students who complete all three levels will be prepared to take the Microsoft Office User Specialist (MOUS) certification examination or similar examinations. Students should consider enrolling in BOT 282 prior to taking the examination.  
**CSU**
- 129 COMPREHENSIVE POWERPOINT, LEVEL I 1 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: BOT 101AB, 114 and 120 or equivalent, and ENGL 098R or ESL 105 or equivalent reading level  
.5 hour lecture, 1.5 hours laboratory  
First in a three-level course sequence designed to give students thorough coverage of most features of Microsoft PowerPoint. Students who complete all three levels will be prepared to take the Microsoft Office User Specialist (MOUS) certification examination or similar examinations. Students wishing less comprehensive coverage of PowerPoint should consider enrolling in BOT 117.  
**CSU**

- 130 COMPREHENSIVE POWERPOINT, LEVEL II 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: BOT 129 or equivalent  
 .5 hour lecture, 1.5 hours laboratory  
 Second in a three-level course sequence designed to give students thorough coverage of most features in Microsoft PowerPoint. Students who complete all three levels will be prepared to take the Microsoft Office User Specialist (MOUS) certification examination or similar examinations.  
**CSU**
- 131 COMPREHENSIVE POWERPOINT, LEVEL III 1 UNIT**  
 Prerequisite: BOT 130 with a grade of "C" or better or "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 .5 hour lecture, 1.5 hours laboratory  
 Third in a three-level course sequence designed to give students thorough coverage of most features in Microsoft PowerPoint. Students who complete all three levels will be prepared to take the Microsoft Office User Specialist (MOUS) certification examination or similar examinations. Students should consider enrolling in BOT 283 prior to taking the examination.  
**CSU**
- 150 USING MICROSOFT PUBLISHER 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: BOT 101AB or 121 or equivalent  
 .5 hour lecture, 1.5 hours laboratory  
 Introductory course in Microsoft Publisher for those students who wish to acquire a basic understanding of concepts and terminology for the production and design of professional quality publications. Emphasis on graphics, word processing and page layout.  
**CSU**
- 151 USING MICROSOFT OUTLOOK 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: BOT 096, 097, 101AB, 114 or 120 or equivalent  
 .5 hour lecture, 1.5 hours laboratory  
 Designed to offer students proficiency in the use of Microsoft Outlook to create email messages, maintain personal calendars and schedules, plan work, maintain contact lists, and organize information.  
**CSU**
- 198 SUPERVISED TUTORING 0 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 TBA hours  
 Uses a variety of educational tools to assist students with various learning needs. Can be used to strengthen prerequisite skills prior to enrolling in a specific course or to receive supplemental assistance while concurrently enrolled in another course. *May be repeated with different content.*  
**No fee/no credit course.**
- 199 SPECIAL STUDIES OR PROJECTS IN BUSINESS OFFICE TECHNOLOGY 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Business Office Technology under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 201 ADVANCED KEYBOARDING/DOCUMENT PROCESSING 3 UNITS**  
 Prerequisite: BOT 102AB with a grade of "C" or better or "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 1.5 hours lecture, 4.5 hours laboratory  
 Advanced keyboarding for further development of keyboarding skills to meet professional placement requirements. Students will apply intermediate and advanced features of Microsoft Word to create complex business documents with minimum instruction. Students will use computer software for building speed and accuracy on 5-minute timed writings to attain the speed and accuracy required for professional office positions.  
**CSU**
- 203 OFFICE PROJECT COORDINATION 1 UNIT**  
 Prerequisite: BOT 122, 125, 128, 131 and 151 with a grade of "C" or better or "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours laboratory  
 This capstone course gives students who have comprehensive knowledge of Microsoft Word, Excel, Access, PowerPoint and Outlook the opportunity to integrate those skills by assuming responsibility for completing a given project from inception to completion.  
**CSU**
- 223\* OFFICE WORK EXPERIENCE 1 UNIT**  
 Prerequisite: Limited to BOT majors who have completed at least 12 units in the major  
 Corequisite: None  
 Recommended Preparation: Keyboarding and computer skills as well as training in a variety of office procedures as required by most worksites  
 5 hours work experience  
 Work experience in an office setting. Trainee spends 60-75 hours per semester in on-the-job training.  
**CSU**
- 224\* OFFICE WORK EXPERIENCE 2 UNITS**  
 Prerequisite: Limited to BOT majors who have completed at least 12 units in the major  
 Corequisite: None  
 Recommended Preparation: Keyboarding and computer skills as well as training in a variety of office procedures as required by most worksites  
 10 hours work experience  
 Work experience in an office setting. Trainee spends 120-150 hours per semester in on-the-job training.  
**CSU**

**225\* OFFICE WORK EXPERIENCE 3 UNITS**

Prerequisite: Limited to BOT majors who have completed at least 12 units in the major

Corequisite: None

Recommended Preparation: Keyboarding and computer skills as well as training in a variety of office procedures as required by most worksites

15 hours work experience

Work experience in an office setting. Trainee spends 180-225 hours per semester in on-the-job training.

**CSU**

**280 PREPARING FOR PERFORMANCE EXAMINATIONS IN MICROSOFT WORD .5 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: BOT 122 or equivalent

1.5 hours laboratory

Designed for students who have completed BOT 122 or the equivalent. Students will use testing software to prepare for the Microsoft Office User Specialist (MOUS) certification examination to prepare for employment examinations or to receive a BOT certificate of proficiency in MS Word with detailed competencies. *May be repeated up to 3 times. Credit/No Credit only.*

**281 PREPARING FOR PERFORMANCE EXAMINATIONS IN MICROSOFT EXCEL .5 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: BOT 125 or equivalent

1.5 hours laboratory

Designed for students who have completed BOT 125 or the equivalent. Students will use testing software to prepare for the Microsoft Office User Specialist (MOUS) certification examination to prepare for employment examinations or to receive a BOT certificate of proficiency in MS Excel with detailed competencies. *May be repeated up to 3 times. Credit/No Credit only.*

**282 PREPARING FOR PERFORMANCE EXAMINATIONS IN MICROSOFT ACCESS .5 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: BOT 128 or equivalent

1.5 hours laboratory

Designed for students who have completed BOT 128 or the equivalent. Students will use testing software to prepare for the Microsoft Office User Specialist (MOUS) certification examination to prepare for employment examinations or to receive a BOT certificate of proficiency in MS Access with detailed competencies. *May be repeated up to 3 times. Credit/No Credit only.*

**283 PREPARING FOR PERFORMANCE EXAMINATIONS IN MICROSOFT POWERPOINT .5 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: BOT 131 or equivalent

1.5 hours laboratory

Designed for students who have completed BOT 131 or the equivalent. Students will use testing software to prepare for the Microsoft Office User Specialist (MOUS) certification examination to prepare for employment examinations or to receive a BOT certificate of proficiency in MS PowerPoint with detailed competencies. *May be repeated up to 3 times. Credit/No Credit only.*

**298 SELECTED TOPICS IN BUSINESS OFFICE TECHNOLOGY 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-9 hours

Selected topics in Business Office Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN BUSINESS OFFICE TECHNOLOGY 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-9 hours

Selected topics in Business Office Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

\*For additional information, see "Work Experience Requirements" under Academic Policies.

## CADD TECHNOLOGY

The CADD (Computer Aided Drafting and Design) Technology program at Cuyamaca College is revised from Drafting Technology to reflect changes in the industry and in the Engineering program requirements at SDSU.

### 115 ENGINEERING GRAPHICS 3 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: None

2 hours lecture, 4 hours laboratory

Fundamentals of engineering graphics as a universal language of communication in all engineering fields. Includes organization and drawing layouts, text, dimensions, scales, multiview projections, and pictorial drawings to visualize, represent and document basic engineering problems. Use of freehand sketching only and introduction to computer aided drafting (CAD). *Not open to students with credit in DTEC/ENGR 124 or ENGR 115.*

**CSU, UC, UC credit limit**

### 120 BASIC CAD 3 UNITS

**ABCD** Prerequisite: CADD 115 or ENGR 100 or equivalent

Corequisite: None

Recommended Preparation: None

2 hours lecture, 4 hours laboratory

CAD fundamentals in geometric construction, multiview and singleview projections, section views, dimensions and text. Basic 2D drawing techniques and commands in AutoCAD with emphasis on mechanical drawings.

**CSU, UC, UC credit limit**

### 125 3D PARAMETRIC SOLID MODELING 3 UNITS

Prerequisite: CADD120ABCD or ENGR 119 or equivalent

Corequisite: None

Recommended Preparation: None

2 hours lecture, 4 hours laboratory

Advanced graphic communication using 3D Parametric Modeling CAD software including wireframe construction, feature based part construction using extrudes, cuts and revolves, advanced surface shaping using lofts and sweeps, assembly construction and constraining. The course will continue to develop 2D drafting skills including proper organization and layout of component drawing views, dimensioning and tolerancing, descriptive geometry and manufacturing processes. *Also listed as ENGR 125. Not open to students with credit in ENGR/DTEC 125.*

**CSU, UC, UC credit limit**

### 126 ELECTRONIC DRAFTING 3 UNITS

Prerequisite: CADD 120ABCD or equivalent

Corequisite: None

Recommended Preparation: None

2 hours lecture, 4 hours laboratory

Application of electronic graphics to create all aspects of engineering support documentation. Includes all types: block diagrams, flow charts, wiring, and mechanical enclosures. Also covers Schematic Capture and Printed Circuit Board (PCB) layout and design. Use of AutoCAD, Visio and PCB123 software. ASME, ANSI, Military and NASA standards for engineering are discussed. *Not open to students with credit in DTEC 126.*

**CSU**

### 127 SURVEY DRAFTING TECHNOLOGY 3 UNITS

Prerequisite: CADD 120ABCD or equivalent

Corequisite: None

Recommended Preparation: None

2 hours lecture, 4 hours laboratory

Professional Civil Engineering/Surveyor's office method drafting course that applies the basic skills and techniques acquired in CADD/ENGR 115. Areas covered are land surveying, land development procedures, legal descriptions, topographical analysis, earthworks, geographic control and subdivision processes. *Not open to students with credit in DTEC 127.*

**CSU**

### 128 DIMENSIONING AND TOLERANCING 3 UNITS

Prerequisite: CADD 120ABCD or equivalent

Corequisite: None

Recommended Preparation: CADD/ENGR 125

3 hours lecture

Basic study in dimensioning and tolerancing of engineering drawings using ASME/ANSI Y14.5M-1994 specification. *Not open to students with credit in DTEC 128.*

**CSU**

### 131 ARCHITECTURAL AUTOCAD 3 UNITS

Prerequisite: CADD 120ABCD or equivalent

Corequisite: None

Recommended Preparation: None

2 hours lecture, 4 hours laboratory

Application of architectural graphics, symbols, patterns, layouts, text, dimensions and scales to develop design drawings for small architecture, interior design and space planning projects. Use of AutoCAD commands and techniques in Model Space and Paper Space environments. Processes in developing contract documents for small scale architectural projects based on UBC standards. *Not open to students with credit in DTEC 131.*

**CSU**

### 132 3D AUTOCAD 3 UNITS

Prerequisite: CADD 120ABCD or equivalent

Corequisite: None

Recommended Preparation: None

2 hours lecture, 4 hours laboratory

Concepts and application of 3D coordinate systems in AutoCAD to create wireframe, wiremesh, and 3D surfaces in multiview projections. Use of Model Space and Paper Space environments for different drawing scales and scale factors. Construction of 3D solid models to develop orthographic multiview projections, sections, dimensions and text for production drawings. *Not open to students with credit in DTEC 132.*

**CSU**

### 133 ARCHITECTURAL REVIT 3 UNITS

Prerequisite: CADD 131 or equivalent

Corequisite: None

Recommended Preparation: None

2 hours lecture, 4 hours laboratory

Application of the 3D parametric solid modeling software program, Revit, in architectural projects. Use of the predefined parametric objects, associated commands, techniques and processes required for the development of professional standards contract documents for small scale projects.

**199 SPECIAL STUDIES OR PROJECTS IN CADD TECHNOLOGY 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours

Individual study, research or projects in CADD Technology under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**298 SELECTED TOPICS IN CADD TECHNOLOGY 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in CADD Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN CADD TECHNOLOGY 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in CADD Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

**CHEMISTRY****115 FUNDAMENTALS OF CHEMISTRY 4 UNITS (CAN CHEM 6)**

Prerequisite: MATH 090 with a grade of "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None

3 hours lecture, 3 hours laboratory

Elementary principles of inorganic and general chemistry with a brief introduction to organic and biochemistry. Previous chemistry background is not required. Recommended for students who need only a one-semester general chemistry course and for students entering paramedical and allied health fields. Students will not receive credit toward graduation for more than one of the following courses: CHEM 115 and 120.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

**116 INTRODUCTORY ORGANIC AND BIOCHEMISTRY 4 UNITS**

Prerequisite: CHEM 115 with a grade of "C" or better or "CR" or equivalent

Corequisite: None

Recommended Preparation: None

3 hours lecture, 3 hours laboratory

The study of carbon compounds with emphasis on their structure, properties and reactivity. Introduction to the structure of the major classes of biomolecules—carbohydrates, lipids and proteins—and their relationship to the major classes of organic compounds.

**AA/AS GE, CSU, CSU GE, IGETC, UC, UC credit limit**

**120 PREPARATION FOR GENERAL CHEMISTRY 4 UNITS**

Prerequisite: MATH 110 with a grade of "C" or better or "CR" or equivalent

Corequisite: None

Recommended Preparation: None

3 hours lecture, 3 hours laboratory

Elementary principles of chemistry approached from a problem-solving perspective necessary to succeed in CHEM 141. Intensive study in the areas of problem solving, stoichiometry, chemical nomenclature, basic atomic theory and bonding, solutions, acid-base chemistry, redox reactions and gas laws. Laboratory will be an introduction to quantitative techniques, descriptive chemistry, gas laws, error analysis and data treatment. Students will not receive credit toward graduation for more than one of the following courses: CHEM 115 and 120.

**AA/AS GE, CSU, CSU GE, IGETC, UC, UC credit limit**

**141 GENERAL CHEMISTRY I 5 UNITS (CAN CHEM 2; CAN CHEM SEQ A = CHEM 141+142)**

Prerequisite: CHEM 120 with a grade of "C" or better or "CR" or equivalent or the Chemistry 141 assessment and MATH 110 with a grade of "C" or better or "CR" or equivalent

Corequisite: None

Recommended Preparation: None

3 hours lecture, 6 hours laboratory

Basic principles and concepts of chemistry with emphasis in the areas of stoichiometry, thermochemistry, atomic structure, chemical bonding and gas laws. The laboratory is an introduction to quantitative analysis and the principles of atomic and molecular structures.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

- 142 GENERAL CHEMISTRY II** **5 UNITS**  
(*CAN CHEM 4; CAN CHEM SEQ A = CHEM 141+142*)  
Prerequisite: CHEM 141 (grade of "C" or better recommended)  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture, 6 hours laboratory  
Basic principles and calculations of chemistry with emphasis in the areas of equilibrium, thermodynamics, descriptive chemistry of the periodic table, intermolecular forces, properties of liquids, solids and solutions, kinetics, electrochemistry, coordination compounds and radiochemistry. The laboratory will continue on the same basis as CHEM 141, but will also include some qualitative analysis.  
**CSU, CSU GE, IGETC, UC**
- 199 SPECIAL STUDIES OR PROJECTS IN CHEMISTRY** **1-3 UNITS**  
Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
3-9 hours  
Individual study, research or projects in Chemistry under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 231 ORGANIC CHEMISTRY I** **5 UNITS**  
Prerequisite: CHEM 142  
Corequisite: None  
Recommended Preparation: None  
4 hours lecture, 3 hours laboratory  
Synthesis and reactions of carbon compounds, primarily aliphatic compounds. The relationship of structure to properties, reactivity and mechanism of reaction will be emphasized. This course, which is equivalent to the first semester of a two-semester sequence offered at four-year institutions, is intended for biology, chemistry and pre-medical majors needing either one or two semesters of organic chemistry.  
**CSU, CSU GE, IGETC, UC**
- 298 SELECTED TOPICS IN CHEMISTRY** **1-5 UNITS**  
Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
1-15 hours  
Selected topics in Chemistry not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN CHEMISTRY** **1-5 UNITS**  
Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
1-15 hours  
Selected topics in Chemistry not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## CHILD DEVELOPMENT

- 123 INTRODUCTION TO PROGRAMS AND CURRICULUM FOR YOUNG CHILDREN** **3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture  
Overview of the field of child development. Covers developmentally appropriate curriculum practices, regulations, classroom environment and management techniques for a variety of early childhood programs. Students will explore career options and their aptitude for this profession. Students are required to observe and report on different types of programs in the community.  
**CSU**
- 124 INFANT AND TODDLER DEVELOPMENT** **3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture  
Study of the process of human development from conception to 36 months as determined by heredity, society and human interaction with implications for child guidance. Prenatal development and the birth process are emphasized. Observations of a neonate, infant and toddler are required.  
**CSU**
- 125 CHILD GROWTH AND DEVELOPMENT** **3 UNITS**  
(*CAN FCS 14*)  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture  
Study of the process of human development from conception through adolescence as determined by heredity, society and personal human interaction with implications for child guidance. Observation of children of various ages is an integral part of this course.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 126 ART FOR CHILD DEVELOPMENT** **3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture  
Exploration of the importance and value of creative art activities for young children. Experiences with a variety of art media; evaluation and selection of materials appropriate for toddlers, preschool children and children with special needs.  
**CSU**
- 127 SCIENCE AND MATHEMATICS FOR CHILD DEVELOPMENT** **3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: CD 125  
3 hours lecture  
Exploration of the importance and value of science and mathematics in programs for young children. Understanding and devising ways of teaching basic concepts, evaluating activities and constructing appropriate materials for young children and children with special needs. Use of computers with children is included.  
**CSU**

- 128 MUSIC AND MOVEMENT FOR CHILD DEVELOPMENT** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Exploration of the importance and meaning of music and movement for toddlers, preschool children and children with special needs. Areas emphasized will be listening skills, singing, movement education and creating instruments.  
**CSU**
- 129 LANGUAGE AND LITERATURE FOR CHILD DEVELOPMENT** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CD 125  
 3 hours lecture  
 Designed to help teachers build language opportunities into every curriculum area, and to explore methods of fostering language and emerging literacy skills for young children and children with special needs. Includes the study of children's literature, standards for evaluating books and computer software, techniques of storytelling and puppetry.  
**CSU**
- 130 CURRICULUM: DEVELOPMENTALLY APPROPRIATE PRACTICES** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CD 123, 125, 126, 127, 128, 129 and 131  
 3 hours lecture  
 Advanced course in developmentally appropriate curriculum practices for early childhood programs. Looks at contemporary philosophies and current best practices in curriculum activities, methods and materials appropriate for planning a program for young children.  
**CSU**
- 131 CHILD, FAMILY AND COMMUNITY** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CD 123 and 125 with a grade of "C" or better  
 3 hours lecture  
 Study of the influence of different variables impacting the child and family dynamic. Emphasis on establishing effective teacher, caregiver and family relationships. Community resources and agencies that strengthen families will be examined. Students will have the opportunity to develop strategies to support the wide range of families in a multicultural society. Required by the California State Department of Social Services for teachers and directors.  
**CSU**
- 132 OBSERVATION AND GUIDANCE FOR CHILD DEVELOPMENT** **2 UNITS**  
 Prerequisite: Completion of the following with a grade of "C" or better: CD 123, 125, 126, 127, 128, 129, 131 and 130 or 143  
 Corequisite: CD 133  
 Recommended Preparation: None  
 2 hours lecture  
 Student formulation and application of child guidance techniques based on observation and experiences at the school in which the student is doing his/her field work experience.  
**CSU**
- 133 FIELD EXPERIENCE FOR CHILD DEVELOPMENT** **2 UNITS**  
 Prerequisite: Completion of the following with a grade of "C" or better: CD 123, 125, 126, 127, 128, 129, 130 and 131  
 Corequisite: CD 132 or previous enrollment  
 Recommended Preparation: None  
 10 hours paid or 8 hours unpaid work experience per week  
 Under supervision at approved field placement sites, students will participate in all classroom activities. Students will develop and supervise learning experiences, conduct group-times, handle routines and respond to individual and group needs of young children.  
**CSU**
- 134 HEALTH, SAFETY AND NUTRITION FOR TEACHERS OF YOUNG CHILDREN** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Emphasizes strategies for applying holistic health, safety and nutrition in schools and child care settings. For teachers, parents or others who desire current information on concepts of health, safety and nutrition as it applies to children from infancy through school age. Covers laws, practices and curriculum regarding accident prevention, childhood illness and nutritional guidelines that will help adults to assist children to develop good habits, attitudes and responses that lead to healthy and safe lifestyles.  
**CSU**
- 135 PARENT-CHILD INTERACTION** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 For teachers, parent educators and parents which offers skills and resources that promote more effective parent-child interaction. The parent-child relationship throughout the life cycle will be emphasized. Issues include sex education, divorce, single parenting, aging and death.  
**CSU**
- 136 ADULT SUPERVISION: THE MASTER TEACHER'S ROLE** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: 12 units of CD as defined by Title 22 licensing regulations: 3 units in Child Growth and Development (CD 125), 3 units in Child, Family and Community (CD 131), 6 units in Program Curriculum (CD 123 or 126 or 127 or 128 or 129 or 130), and currently teaching in a preschool or child care setting in the role of lead teacher or head teacher or other supervisory capacity.  
 3 hours lecture  
 Principles and practical techniques for working with and fostering the professional development of co-teachers, aides, parents, student teachers and volunteers in preschool and child care programs. Emphasis on the role of the classroom teacher or director who functions as master teacher, lead teacher and/or mentor to adults while simultaneously addressing the needs of children, families and the program. Students will have opportunities to develop skills in delegation as well as adult problem solving and communication.  
**CSU**

- 137 ADMINISTRATION OF CHILD DEVELOPMENT PROGRAMS I 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: 12 units in Child Development as required by Title 22 licensing regulations: 3 units of Child Development (CD 125), 3 units of Child, Family and Community (CD 131), and 6 units of Program Curriculum (CD 123 and 126 or 127 or 128 or 129 or 130)  
 3 hours lecture  
 This course is designed for the beginning director of child care and preschool programs. It includes administrative tools, knowledge and techniques needed to organize, open and operate a child development facility. Topics include budget, management, regulatory laws, and development of school policies and procedures. This course is required by the California Department of Social Services and California Department of Education for child care and preschool program directors and site supervisors.  
**CSU**
- 138 ADMINISTRATION OF CHILD DEVELOPMENT PROGRAMS II 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CD 137  
 3 hours lecture  
 Provides an advanced level of administrative and managerial knowledge needed to operate a child care center as a successful business. Emphasis on analysis and application of business theory and principles in the areas of budget, personnel, environmental design, program, and business communication.  
**CSU**
- 139 INFANT/PARENT DEVELOPMENT 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1.5 hours lecture, 1.5 hours laboratory  
 Lecture and discussion group to support parents as growing adults while helping them to understand and appreciate principles of infant and toddler development. Enrolled parents will bring their infants to each three-hour class meeting for interaction and observation by child development students.  
**CSU**
- 141 WORKING WITH CHILDREN WITH SPECIAL NEEDS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Focuses on strategies for working with children with special needs, including physical challenges, learning difficulties, prenatal exposure to drugs, limited English skills, giftedness and behavior disorders. With an emphasis on inclusion in the regular classroom and child care settings, the class will include compliance with legislation, referral processes, working with families, and modification of environment and curriculum.  
**CSU**
- 143 INFANT/TODDLER CURRICULUM 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CD 124 or 125  
 3 hours lecture  
 Prepares students to develop an infant and/or toddler curriculum including design of a developmentally appropriate learning environment. Examination of the philosophies and methods currently in practice. Teacher competencies necessary for work with children in these stages will be emphasized.  
**CSU**
- 145 CHILD ABUSE AND FAMILY VIOLENCE IN OUR SOCIETY 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Child abuse and neglect, domestic violence, elder abuse and community violence, as well as safety and self protection will be examined with an emphasis on how the classroom teacher, foster parents and members of the general public can recognize, prevent, report and intervene in cases of child abuse and domestic violence.  
**CSU**
- 148 CURRICULUM FOR SCHOOL AGE CHILD CARE 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CD 125  
 3 hours lecture  
 Covers the developmental needs, appropriate curriculum and guidance techniques for children ages 6 to 12 in a child care setting. Meets Title 22 curriculum requirements for teachers and directors in extended day care programs. Also useful for recreation and youth group activities.  
**CSU**
- 149 SCHOOL AGE CHILD CARE PROGRAM PLANNING 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CD 148  
 3 hours lecture  
 Continuation and expansion of principles introduced in CD 148 with a focus on overall program design for school age child care. Special emphasis on working with children labeled "at risk" and parent communication.  
**CSU**
- 150 FIELD EXPERIENCE FOR SCHOOL AGE CHILD CARE 2 UNITS**  
 Prerequisite: CD 125, 131, 134, 148, 149  
 Corequisite: CD 132 or previous enrollment  
 Recommended Preparation: None  
 10 hours paid or 8 hours unpaid work experience per week  
 Under supervision at an approved field placement site in a school age child care program, the student will participate in all activities. The student will develop and supervise learning experiences, conduct activities, handle daily routines and respond to individual and group needs.  
**CSU**

- 152 DIVERSITY ISSUES IN EARLY CHILDHOOD EDUCATION 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture  
Analysis of the many contexts and variables related to an individual's socialization process and how these factors impact on one's work with children and families. Using an anti-bias approach, examines and discusses topics related to ethnicity, religion, race, sex, disability and lifestyles as represented in schools and society at large. Students will better understand their own attitudes toward groups other than their own and apply this knowledge to their work with young children. Applicable to the Child Development Permit Master Teacher multicultural specialization. Relevant for parents and others who work with families and children.  
**CSU**
- 157 FOOD AND NUTRITION FOR CHILDREN 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture  
This course is designed to provide students with information and resources related to the nutritional needs of children from birth until approximately 12 years of age. Course content includes menu planning and nutrition education, food safety, storage and preparation appropriate for a wide variety of indoor and outdoor settings.  
**CSU**
- 170 FIELD EXPERIENCE WITH INFANTS AND TODDLERS 2 UNITS**  
Prerequisite: Completion of the following with a grade of "C" or better: CD 123, 124, 125, 126, 127, 128, 129 and 143  
Corequisite: CD 132 or previous enrollment  
Recommended Preparation: None  
10 hours paid or 8 hours unpaid work experience per week  
Under supervision at approved field placement sites, students will participate in all classroom activities. Students will design and modify the environment, develop and supervise learning experiences, handle routines and respond to individual and group needs under two years of age.  
**CSU**
- 199 SPECIAL STUDIES OR PROJECTS IN CHILD DEVELOPMENT 1-3 UNITS**  
Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
3-9 hours  
Individual study, research or projects in Child Development under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 200 INTRODUCTION TO OUTDOOR EDUCATION PROGRAMS 1 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: CD 125  
1 hour lecture  
This course is designed as an introduction and exploration of outdoor education programs for students considering employment in camp settings. Students will be introduced to a variety of program philosophies and special interest camps. Outdoor safety, environmental awareness, and designing meaningful activities that are engaging and appropriate for children are the main emphasis of the course. The class will have a practical application component. Students will be expected to participate in a field trip to a local outdoor outfitter. Provides an overview of classes required in the Outdoor Leadership certificate of proficiency and may assist students in determining future educational goals.  
**CSU**
- 201 CREATIVE ACTIVITIES FOR OUTDOOR PROGRAMS 1 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: CD 125  
1 hour lecture  
This course is designed for students planning to work in outdoor education or environmental education programs. Focuses on the planning and development of craft projects appropriate for outdoor education settings. Projects will incorporate environmental and science-related concepts. Emphasis on practical application including arts and crafts materials and using craft activities and projects as instructional tools. Students will present projects and compile a resource of the ideas presented in class for future reference.  
**CSU**
- 202 FIELD EXPERIENCE FOR RECREATIONAL LEADERSHIP 1 UNIT**  
Prerequisite: CD 125, 200, 201 with a grade of "C" or better or "CR"  
Corequisite: None  
Recommended Preparation: None  
75 hours paid or 60 hours unpaid work experience  
Under the supervision of an approved field placement site, students will participate in recreational program activities in an outdoor education or camp facility. Students will take part in planned recreational activities, develop and implement learning adventures, supervise groups of multi-aged children using positive group management techniques, respond to individual needs, participate in all aspects of camp life including meal preparation and service, setting up, taking down and maintaining outdoor equipment, and assuring the health, safety and enjoyment of camp participants. *Note: Fingerprinting will be required for field experience site and some sites may require CPR certification.*  
**CSU**

**210 WORKING WITH YOUNG CHILDREN WITH CHALLENGING BEHAVIORS 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

This course provides students with a practical foundation for working with children with challenging behaviors in early childhood programs. Key components are developmentally appropriate guidance and proactive management techniques, preventative and intervention strategies, and adaptations of environment and settings. The importance of a child's developmental age, family involvement and community resources will be included.

**211 FIELD EXPERIENCE IN EARLY CHILDHOOD INTERVENTION 2 UNITS**

Prerequisite: Completion of the following with a grade of "C" or better: CD 125, 141, 145, 210 and two of the following: CD 126, 127, 128, 129

Corequisite: CD 132 or previous enrollment  
 Recommended Preparation: CD 131, 134

10 hours paid or 8 hours unpaid work experience per week

This course provides a supervised field experience as an assistant in an inclusive group early childhood or special education program or an individual early intervention setting. Under supervision, students will participate in routines and procedures and will develop and implement appropriate activities as required.

**298 SELECTED TOPICS IN CHILD DEVELOPMENT 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Child Development not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN CHILD DEVELOPMENT 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Child Development not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

**COMMUNICATION****110 INTRODUCTION TO MASS COMMUNICATION 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

This course is designed to provide students with a basic understanding of mass media practices and influences in the United States (and globally). Topics of discussion will include current media practices, problems, issues and significant trends with special emphasis on the ways media and society influence and change each other. Students will explore the history of mass media theories, ethics, roles and responsibilities, contributions of diverse groups, gender issues, and legal rights and restrictions. Mass media contexts will include news advertising, public relations, photojournalism, newspapers, radio, television, film, recording industry, book publishing, network/cable and online communication.

**120 INTERPERSONAL COMMUNICATION 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

This course provides an opportunity for students to learn and apply in daily life practical principles of interpersonal communication. The emphasis is on personal, situational and cultural influences and interaction. It is designed to assist students in improving their own interpersonal communication skills. Attention is given to human perception, interpersonal dynamics, listening, conflict management, verbal and nonverbal symbol systems.

**AA/AS GE, CSU, CSU GE**

**122 PUBLIC SPEAKING (CAN SPCH 4) 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

This course offers an opportunity for general improvement in the basic process of public speaking with emphasis on individual to audience contexts. Introduction to rhetorical theory is included. Attention is given to the basic elements of topic selection, analysis of diverse audiences, research, organization, argumentation and delivery of speeches and presentations.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**123 ADVANCED PUBLIC SPEAKING 3 UNITS**

Prerequisite: COMM 122 with a grade of "C" or better or "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Advanced training in the preparation and delivery of common types of public speaking. Emphasis on the fundamental processes of oral communication.

**CSU, UC**

- 124 INTERCULTURAL COMMUNICATION 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 To experience and learn about intercultural communication: the study of face-to-face communication between persons with significantly different beliefs, values, expectations and assumptions. Theoretical overview is presented; however, the course emphasis relies on its unique composition of students from a variety of cultural backgrounds (national origin, ethnicity, age, gender, etc.) who are encouraged to enroll. The resulting student-to-student dynamic offers a unique opportunity to experience and learn about practical similarities and differences between people of different cultural backgrounds.  
**AA/AS GE, CSU, CSU GE, UC**
- 135 FUNDAMENTALS OF ORAL INTERPRETATION 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to give students an opportunity to develop skills in oral interpretation of various types of literature. Emphasis on the pleasure to be gained from reading fine literature aloud to others.  
**CSU, UC**
- 136 READERS THEATRE 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to teach the theory, concepts and history of Readers Theatre; to give students the opportunity to learn the principles of literary analysis and oral interpretation; and to study methodologies and techniques in the development of written material from text into a medium of group communication.  
**CSU, UC**
- 137 SMALL GROUP COMMUNICATION 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 This course offers training for participation in and leadership of the various forms of small group communication. It is concerned with the basic tools of critical thinking such as evidence, reasoning, language and relevant psychological factors. In addition to examining these basic tools, students become familiar with discussion techniques and learn the characteristics and limitations of, and uses for various discussion forms.  
**AA/AS GE, CSU, UC**
- 145 ARGUMENTATION 3 UNITS**  
**(CAN SPCH 6)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 This course emphasizes the construction and analysis of public argument. It covers the theory of argument, the processes and development of arguments, and the application of argument to decision making.  
**AA/AS GE, CSU, CSU GE, UC**
- 199 SPECIAL STUDIES OR PROJECTS IN COMMUNICATION 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Communication under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 240 INTERCOLLEGIATE FORENSICS 3 UNITS**  
**ABCD** Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Designed to give students an opportunity to improve their public speaking skills through intercollegiate forensic competition and other realistic speaking situations outside the classroom. Class and individual instruction is provided in the following speaking categories: public address, oral interpretation, impromptu, debate, and readers theatre. *May be taken for 4 semesters.*  
**CSU**
- 298 SELECTED TOPICS IN COMMUNICATION 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Communication not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN COMMUNICATION 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Communication not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

# COMPUTER AND INFORMATION SCIENCE

*Students who wish to enroll in Microsoft applications (Word, Excel, PowerPoint) should refer to Business Office Technology.*

## 105 INTRODUCTION TO COMPUTING 3 UNITS

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
2 hours lecture, 3 hours laboratory

Introductory small computing course for those desiring beginning computer knowledge and skills. Includes an overview of a typical personal computer system including input and output devices, the processor, and storage devices. Also includes hands-on experience with a computer and popular application software. Emphasis on those skills and knowledge needed to use and maintain a home or small business computer.

**CSU**

## 110 PRINCIPLES OF INFORMATION SYSTEMS 4 UNITS

*(CAN CSCI 2)*  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture, 3 hours laboratory

Develops basic knowledge of computers and information systems. Broad overview of topics includes computer organization, hardware and software systems, and application software. Approximately one-third of the course will include hands-on problem solving using spreadsheets. The remainder consists of hands-on problem solving using tools including databases, presentation graphics and word processing. (Specific software packages to be identified in class schedule.)

**CSU, UC**

## 120 COMPUTER MAINTENANCE AND A+ CERTIFICATION 3 UNITS

Prerequisite: None  
Corequisite: None  
Recommended Preparation: CIS 110  
2 hours lecture, 3 hours laboratory

Prepares students for the A+ Certification exam, an industry-sponsored test that establishes a benchmark level of knowledge and competence expected of computer service technicians in entry-level positions. A+ Certification also serves as the foundation for computer service professionals who are pursuing other valuable industry certifications such as the Cisco Certified Networking Associate (CCNA), Network+, and Microsoft Certified Professional (MCP). While preparing for the A+ Certification exam, students will gain a comprehensive knowledge base in computer hardware, DOS and Windows operating systems, networking basics, printers, and customer service. Hands-on labs using the latest computer components and operating systems will also provide an opportunity for students to enhance their skills in assembling, disassembling, servicing, troubleshooting, and upgrading advanced computer and networking systems.

**CSU**

## 121 NETWORK CABLING SYSTEMS 3 UNITS

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
2 hours lecture, 3 hours laboratory

Designed for individuals interested in the physical aspects of computer network installation and cabling. Focuses on cabling issues related to network/Internet connections and provides an understanding of industry trends and standards, types of cabling, physical and logical network topologies, and issues related to physical plant characteristics. Students will develop skills in installing jacks, stringing and mounting cable, cable testing, choice of wiring closets, and patch panel installation. Provides extensive hands-on use of the computer labs for documentation and design purposes as well as conducting Internet research.

**CSU**

## 125 NETWORK + CERTIFICATION 3 UNITS

Prerequisite: None  
Corequisite: None  
Recommended Preparation: Basic computer skills (basic knowledge of computer hardware, operating systems and applications software)  
2 hours lecture, 3 hours laboratory

This practical course is intended for anyone interested in learning computer networking with an emphasis on earning the Computing Technology Industry Association's certification Network+. The Network+ certification is a foundation-level, vendor-neutral international industry credential that validates the knowledge of networking professionals. Earning a Network+ certification demonstrates that a candidate can describe the features and functions of networking components, and possesses the knowledge and skills needed to install, configure and troubleshoot basic networking hardware, protocols and services. The certification indicates technical ability in the areas of media and topologies, protocols and standards, network implementation, and network support. Throughout the course, theory will be demonstrated and practiced in laboratory exercises. Lectures, laboratories and practical assignments will emphasize skills needed to work effectively in the networking environment and to earn the Network+ certification.

## 140 DATABASES 3 UNITS

Prerequisite: None  
Corequisite: None  
Recommended Preparation: CIS 110  
2 hours lecture, 3 hours laboratory

Beginning course in database software to provide students with a solid background in database applications and operation. Students will create, update and retrieve information using a computer and database software. Beneficial for students who wish to use the computer to file, organize, retrieve and create reports from data.

**CSU**

- 161 FUNDAMENTALS OF TELECOMMUNICATIONS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 120, 121  
 2 hours lecture, 3 hours laboratory  
 This course introduces students to the basic concepts of telecommunications, beginning with how communication signals are generated, encoded, transmitted and received over telecommunications channels. Theory of analog and digital signals, frequency spectra, bandwidth, modulation, and multiplexing techniques are introduced and demonstrated. Covers the history of telecommunications technologies, industry and governmental policy and how this history has led to the modern public telecommunications networks. Networking systems and equipment are explored including transmission and reception technology, switching systems, and transmission media such as optical fiber, copper and wireless. Finally, students are introduced to the technological advances in broadband and convergence technologies and the merging of voice, data and video applications on a single network. The laboratory portion of the course allows students to verify concepts introduced in class and develop the prerequisite knowledge and skills required to build, test, operate and maintain telecommunications networks.  
**CSU**
- 162 NETWORK DIAGRAMMING USING MS VISIO 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 161, 201  
 3 hours laboratory  
 Networking and telecommunications professionals must know how to create technical diagrams and drawings and to use computer tools to manage Information Technology (IT) projects. Using the Visio Professional program from Microsoft, students will learn how to create basic and advanced networking and telecommunications diagrams and drawings, building plans, project schedules and flow charts. Students will also learn how to visualize and develop presentations of ideas and complex technical and business information systems. Challenging case studies will be used to provide real-world technical and business experiences.  
**CSU**
- 170 COMPUTER GRAPHICS 3 UNITS**  
**ABCD** Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 110  
 2 hours lecture, 3 hours laboratory  
 Beginning course in producing computer graphics utilizing a personal computer. Lectures, demonstrations and hands-on experience operating a computer and laser printer using page composition and graphics software. Utilizes a popular graphics software package to produce graphical presentations. (Specific software packages to be identified in class schedule.)  
**CSU**
- 190 INTRODUCTION TO WINDOWS OPERATING SYSTEMS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 110  
 2 hours lecture, 3 hours laboratory  
 Beginning course to provide hands-on understanding and use of a Windows operating system. Installation and configuration will be covered. Keyboard and mouse commands will be utilized in efficient operation of a computer system. Topics include the use of a computer operating system to install new programs, perform software maintenance, and customize computer software installations to accommodate individual preferences. Additional topics may include connecting computers to networks and peripheral equipment such as printers, scanners, and modems. (Specific software packages to be identified in class schedule.)  
**CSU**
- 191 INTRODUCTION TO UNIX OPERATING SYSTEM 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 110, 120  
 2 hours lecture, 3 hours laboratory  
 Introductory course designed to provide an understanding of the history and advantages of the UNIX operating system. Topics include the history and evolution of the UNIX operating system, file and directory manipulation, screen editing with vi, permissions, customizing the user's environment, simple shell programming, X-Windows and special features of the shell. Students will be able to troubleshoot common installation and configuration problems and set up and maintain user accounts. Lecture material reinforced with practical lab exercises.  
**CSU**
- 198 SUPERVISED TUTORING 0 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 TBA hours  
 Uses a variety of educational tools to assist students with various learning needs. Can be used to strengthen prerequisite skills prior to enrolling in a specific course or to receive supplemental assistance while concurrently enrolled in another course. *May be repeated with different content. No fee/no credit course.*
- 199 SPECIAL STUDIES OR PROJECTS IN COMPUTER AND INFORMATION SCIENCE 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Computer and Information Science under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

- 200 ABCD INTRODUCTION TO COMPUTER NETWORKING 3 UNITS**  
 Prerequisite: CIS 190  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Designed as an introduction to Local Area Networks (LANs) with emphasis on basic server administration skills. Students will create a LAN using a popular network operating system. Next, students will add peripherals and will use software tools to control their operation. LAN protocols will be covered and Internet protocols will be covered in depth. Throughout this course, theory will be demonstrated in laboratory exercises. (Specific software packages to be identified in class schedule.)  
**CSU**
- 201 CISCO NETWORKING ACADEMY I 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 120, 190, A+ Certification or one year of industry experience  
 2 hours lecture, 3 hours laboratory  
 The first of four courses designed to provide classroom and laboratory experience in current and emerging networking technology that will empower students to enter employment and/or further their education and training in the computer networking field. Includes safety, networking, network terminology and protocols, network standards, Local Area Networks (LANs), Wide Area Networks (WANs), Open System Interconnection (OSI) models, cabling, cabling tools, routers, router programming, star topology, Internet Protocol (IP) addressing, and network standards. Particular emphasis on the use of decision-making and problem-solving techniques in applying science, mathematics, communication, and social studies concepts to solve networking problems. Instruction and training provided in the proper care, maintenance and use of networking software, tools and equipment, and all local, state and federal safety, building and environmental codes and regulations.  
**CSU**
- 202 CISCO NETWORKING ACADEMY II 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Student must complete CIS 201 or semester I of the Cisco Networking Academy at any accredited institution. The second of four courses designed to provide classroom and laboratory experience in current and emerging networking technology that will empower students to enter employment and/or further their education and training in the computer networking field. Includes safety, networking, network terminology and protocols, network standards, Local Area Networks (LANs), Wide Area Networks (WANs), Open System Interconnection (OSI) models, Ethernet, Token Ring, Fiber Distributed Data Interface, Transmission Control Protocol/Internet Protocol (TCP/IP) addressing protocol, dynamic routing, routing, and the network administrator's role and function. Particular emphasis on the use of decision-making and problem-solving techniques in applying science, mathematics, communication and social studies concepts to solve networking problems. Instruction and training provided in the proper care, maintenance and use of networking software, tools and equipment, and all local, state and federal safety, building and environmental codes and regulations.  
**CSU**
- 203 CISCO NETWORKING ACADEMY III 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Student must complete CIS 202 or semester II of the Cisco Networking Academy at any accredited institution. The third of four courses designed to introduce new content and extend previously learned networking skills that will empower students to enter the workforce and/or further their education and training in the computer networking field. Introduces and extends knowledge and practical experience with switches, Local Area Network (LAN) and Virtual Local Area Network (VLAN) design, configuration and maintenance. Students develop practical experience in skills related to configuring LANs, Wide Area Networks (WANs), Novell networks, Internetwork Packet Exchange (IPX) routing and Interior Gateway Routing Protocol (IGRP) protocols and network troubleshooting.  
**CSU**
- 204 CISCO NETWORKING ACADEMY IV 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Student must complete CIS 203 or semester III of the Cisco Networking Academy at any accredited institution. The fourth of four courses designed to introduce new content and extend previously learned networking skills that will empower students to enter the workforce and/or further their education and training in the computer networking field. A task analysis of current industry standards and occupation analysis was used in the development of content standards. Introduces and extends the student's knowledge and practical experience with Wide Area Networks (WANs), Integrated Services Digital Networks (ISDNs), and Point-to-Point Protocols (PPP) and Frame Relay design, configuration and maintenance. Students develop practical experience in skills related to configuring WANs, ISDNs, PPP and Frame Relay protocols and network troubleshooting.  
**CSU**
- 205 CISCO NETWORKING ACADEMY V 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Student must complete CIS 204 or semester IV of the Cisco Networking Academy at any accredited institution. A follow-up course designed to introduce new content and extend previously learned networking skills that will empower students to enter the workforce and/or further their education and training in the computer networking field. A task analysis of current industry standards and occupation analysis was used in the development of content standards. Focuses on advanced routing and using Cisco routers connected in Local Area Networks (LANs) and Wide Area Networks (WANs) typically found at medium to large network sites. Upon completion, students will be able to select and implement the appropriate Cisco IOS (Internet over Satellite) services required to build a scalable routed network.  
**CSU**

- 211 WEB MARKUP LANGUAGES 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: CIS 110  
2 hours lecture, 3 hours laboratory  
Hands-on training in web publishing using a markup language such as HTML, XHTML, or XML and a stylesheet language such as CSS (Cascading Style Sheets) or XSL (eXtensible Stylesheet Language). Students will create a simple website and upload it to a web server. Techniques for creating web presentations compliant with current World Wide Web Consortium (W3C) standards and viewable by most web browsers will be stressed. Topics include formatting text, organizing a website, integrating images, linking to external files, linking to email and FTP sites, principles of good web design, lists, tables, frames, imagemaps, forms, stylesheets, and the cascade mechanism.  
**CSU**
- 212 INTRODUCTION TO DREAMWEAVER 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: CIS 211  
2 hours lecture, 3 hours laboratory  
Introductory web development course emphasizing production and design using web authoring software. Students will apply skills and concepts to plan and develop a small website.  
**CSU**
- 213 ADVANCED DREAMWEAVER 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: CIS 140, 212  
2 hours lecture, 3 hours laboratory  
Covers intermediate topics in web design and production such as Cascading Style Sheets, frames, forms, JavaScript, database integration, usability and accessibility. Students will complete a series of short assignments as well as a final project.  
**CSU**
- 214 WEB SERVER MANAGEMENT 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: CIS 190, 290  
2 hours lecture, 3 hours laboratory  
Focuses on installing, configuring, maintaining and managing Internet and intranet web servers containing multiple websites using both Microsoft Internet Information Server and Apache. Students will install and configure a web server and related services. Security and maintenance techniques will be used. (Specific software packages to be identified in class schedule.)  
**CSU**
- 215 JAVASCRIPT PROGRAMMING 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: CIS 211, CS 119 or programming experience  
2 hours lecture, 3 hours laboratory  
Introductory course in JavaScript programming focusing on creating interactive web pages. Topics include integrating JavaScript with HTML (Hypertext Markup Language), event-handling, array, and writing and calling JavaScript functions. Students will use JavaScript to perform real-world tasks and create a variety of effects including form validations, image rollovers, pull-down menus, pop-up windows, form calculations, and more.  
**CSU**
- 216 ACTIVE SERVER PAGES 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: CIS 211 or HTML experience; CIS 212 or experience developing a website; CIS 213; CS 180ABCD or 182 or experience with Visual Basic or Java  
2 hours lecture, 3 hours laboratory  
Covers the development of programs used in websites using Active Server Pages (ASP) to deliver dynamic web content. Topics include database connectivity, security and e-commerce applications in website operations. Emphasis on programming in ASP to create dynamic web content.  
**CSU**
- 219 PHP/MYSQL DYNAMIC WEB-BASED APPLICATIONS 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: CIS 140 (or some experience with database development), 211 (or proficiency with HTML or XHTML)  
2 hours lecture, 3 hours laboratory  
This course provides students with the knowledge and skills necessary to use the PHP scripting language to develop dynamic web-based applications. Topics of study include the fundamentals of scripting, using PHP with HTML forms, creating functions, and integrating with the MySQL database.
- 221 DIGITAL VIDEO EDITING AND DVD PRODUCTION 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: CIS 110 or basic computer skills  
Using video editing software, students will produce video in a variety of formats including web video and DVDs with menus. Video editing techniques will be emphasized. Students will also learn how to shoot video with a digital camera and import video captured from a variety of sources.  
**CSU**

- 230 DESKTOP PUBLISHING 3 UNITS**  
**ABCD** Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: Students should be able to create, edit and print documents using word processing software and create simple graphics.  
 2 hours lecture, 3 hours laboratory  
 Uses a modern desktop publishing software program to demonstrate the principles of publication and design, page layout techniques, typesetting fundamentals, integration of text and graphics, hard disk management, and output to color and monochrome printers. (Specific software packages to be identified in class schedule.)  
**CSU**
- 240 ADVANCED DATABASES 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 140  
 2 hours lecture, 3 hours laboratory  
 Continuation of the study of database software. Students will create, update and retrieve information using applications based on the database programming language or Structured Query Language (SQL). Beneficial for students who wish to create very efficient customized applications.  
**CSU**
- 242 DATABASE DESIGN 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 140, 240 or equivalent  
 2 hours lecture, 3 hours laboratory  
 Design and implement a Structured Query Language (SQL) Server database. Create and maintain database objects and implement database integrity. Use Transact-SQL to query a SQL Server database and manage and manipulate data stored in that database. Manage a SQL Server database by setting appropriate security settings. Perform maintenance and optimization of a SQL Server database.
- 261 TELECOMMUNICATIONS AND CONVERGENCE TECHNOLOGIES 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 161, 201  
 2 hours lecture, 3 hours laboratory  
 This unique course combines topics such as basic telecommunications engineering and preparation for the Convergence Technologies Professional (CTP) Certification with comprehensive hands-on labs. Students learn signal analysis, modulation, multiplexing, access techniques and antenna design. Emerging technologies such as 10 Gigabit Ethernet, Voice over IP (VOIP), wireless networks and broadband access, digital IP-based network video cameras, free-space optics, and convergence technologies are explored and demonstrated. Prepares students to take the CTP Certification exam sponsored by the Telecommunications Industry Association (TIA), an industry-recognized certification often required for employment in the field of telecommunications. The laboratory component allows students to verify concepts introduced in class and develop the prerequisite knowledge and skills required to design, build, test, operate and maintain modern telecommunications networks.  
**CSU**
- 262 FUNDAMENTALS OF WIRELESS LANs 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 202 or semester II of the Cisco Networking Academy at any accredited institution, CIS 120 or A+ equivalent and CIS 121 or equivalent  
 2 hours lecture, 3 hours laboratory  
 Introductory course in wireless LANs (Local Area Networks) focusing on the design, planning, implementation, operation and troubleshooting of wireless LANs. Covers material included in the Cisco Wireless LAN Support Specialist designation (WLANFE 9E0-581) and the Certified Wireless Network Administrator (CWNA) exam, the first of four exams for CWNE. A valid CCNA (Certified Cisco Network Administrator) is required to be eligible for the above WLANFE 9E0-581 exam. Includes a comprehensive overview of technologies, security and design "best practices" with particular emphasis on hands-on skills in the following areas: wireless LAN setup and troubleshooting; 802.1x and 802.1x technologies, products and solutions; site surveys; resilient WLAN (Wireless Local Area Network) design, installation and configuration; WLAN security - 802.1x, EAP, LEAP, WEP, SSID; and vendor interoperability strategies.  
**CSU**
- 263 FUNDAMENTALS OF NETWORK SECURITY 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 120, 190, 202  
 2 hours lecture, 3 hours laboratory  
 Entry-level course in network security that addresses the various aspects of designing and implementing a secure network. This course is intended to serve the needs of individuals interested in understanding the field of network security and how it relates to other areas of Information Technology (IT). Covers materials included in the CompTia (Computing Technology Industry Association) Security+ exam.  
**CSU**
- 267 DIRECTED WORK EXPERIENCE IN CIS 1-4 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours paid or 4 hours unpaid work experience per week per unit  
 Work experience in a computer and information science occupation category for students seeking experience in computer science or information systems. *May be repeated for a maximum of 12 units.*  
**CSU**

- 270 ABCD ADVANCED GRAPHICS 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: Students should be able to create, edit and manipulate graphics using a current graphics program. This knowledge may have been obtained through CIS 170ABCD or equivalent experience.  
2 hours lecture, 3 hours laboratory  
Continuation of CIS 170ABCD, presenting advanced concepts of computer graphics including draw and paint programs, scanning, tracing, styles and templates, importing, exporting, vector and bitmap files. Lectures, demonstrations and hands-on experience in graphics utilizing a personal computer. Students will operate a computer and laser printer using page composition and graphics software. Utilizes popular graphics software to produce images. (Specific software packages to be identified in class schedule.)  
**CSU**
- 290 WINDOWS SYSTEM ADMINISTRATION 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: CIS 120, 190  
2 hours lecture, 3 hours laboratory  
Comprehensive introduction to multi-user, multi-tasking operating systems and networked operating systems. Students will explore a variety of topics including installation procedures, security issues, back-up procedures and remote access. Command line and graphical operating systems will be covered. Students will also attach peripherals and download and install software drivers. (Specific software packages to be identified in class schedule.)  
**CSU**
- 291 UNIX SYSTEM ADMINISTRATION 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: CIS 120, 191  
2 hours lecture, 3 hours laboratory  
The basic skills necessary to be an effective UNIX system administrator are introduced. Designed for new UNIX administrators who wish to know more about the operations of the system. Covers basic administration topics such as disk management, system initialization, adding and removing users, backups and printing. UNIX server programs such as Apache, DNS, DHCP, Mail and Samba will also be covered.  
**CSU**
- 292 UNIX SHELL PROGRAMMING 2 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: CIS 120, 191  
1 hour lecture, 3 hours laboratory  
Introduction to programming with utilities and shell scripting languages in a UNIX environment. Covers the essential aspects of shell programming including similarities and differences among the three most popular shells: the Bourne shell, the C shell, and the Korn shell. Students will learn features including command line argument processing, debugging techniques, the use of sed to edit files, and the use of awk to format output.  
**CSU**
- 298 SELECTED TOPICS IN COMPUTER AND INFORMATION SCIENCE 1-4 UNITS**  
Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
1-12 hours  
Selected topics in Computer and Information Science not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN COMPUTER AND INFORMATION SCIENCE 1-4 UNITS**  
Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
1-12 hours  
Selected topics in Computer and Information Science not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

# COMPUTER SCIENCE

## 119 PROGRAM DESIGN AND DEVELOPMENT 3 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: CIS 110, intermediate algebra  
3 hours lecture

Introductory course in program design and development using Java to serve as a foundation for more advanced programming, computer science or networking courses. Emphasizes the development of problem-solving skills as it introduces students to computer science through the use of a modern object-oriented programming language. Devotes attention to the development of effective software engineering practices emphasizing such principles as design decomposition, encapsulation, procedural abstraction, testing and software reuse. Students will learn and apply standard programming constructs, problem-solving strategies, the concept of an algorithm, fundamental data structures, the machine representation of data, introductory graphics and networking. *Student must also be enrolled in CS 119L.*

**CSU, UC**

## 119L PROGRAM DESIGN AND DEVELOPMENT LAB 1 UNIT

Prerequisite: None

Corequisite: None

Recommended Preparation: CIS 110, intermediate algebra  
3 hours laboratory

Laboratory tutorials, drills and programming problems designed to help students master the concepts and programming projects presented/assigned in CS 119. *Student must also be enrolled in CS 119. Credit/No Credit only.*

**CSU, UC**

## 180 ABCD INTRODUCTION TO VISUAL BASIC PROGRAMMING 4 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: CS 119 or previous programming experience, intermediate algebra

3 hours lecture, 3 hours laboratory

Introduction to computer programming using Visual Basic. Emphasis on practical applications of programming for today's technology. Laboratory instruction will include program development and execution.

**CSU, UC**

## 181 INTRODUCTION TO C++ PROGRAMMING (CAN CSCI 18) 4 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: CS 119, intermediate algebra

3 hours lecture, 3 hours laboratory

Introduction to computer programming using C++. Students with no previous programming experience in C++ learn how to plan and create well-structured programs. Students will learn how to write programs using sequence, selection and repetition structures, as well as how to create and manipulate sequential access files, structs, classes, pointers, and arrays.

**CSU, UC**

## 182 INTRODUCTION TO JAVA PROGRAMMING 4 UNITS

Prerequisite: MATH 110 or equivalent (intermediate algebra)

Corequisite: None

Recommended Preparation: CS 119 or experience programming in C++ or Java

3 hours lecture, 3 hours laboratory

Introductory course in the basics of the Java programming language focusing on object-oriented methodology. Topics include classes, methods, parameters, arrays, modularity, abstraction, exception handling, and stream and file I/O. In addition to writing and using new classes, students will utilize the AWT and/or Swing libraries of classes. Basic inheritance is introduced, although this is covered in more depth in the intermediate Java programming class (CS 282).

**CSU, UC**

## 199 SPECIAL STUDIES OR PROJECTS IN COMPUTER SCIENCE 1-3 UNITS

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

3-9 hours

Individual study, research or projects in Computer Science under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

## 280 ABCD INTERMEDIATE VISUAL BASIC PROGRAMMING 4 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: CS 180ABCD

3 hours lecture, 3 hours laboratory

Continuation of CS 180ABCD, providing the programmer with professional training with emphasis on documentation, structured programming and programming to professional standards using Visual Basic.

**CSU, UC**

## 281 INTERMEDIATE C++ PROGRAMMING 4 UNITS

Prerequisite: CS 181

Corequisite: None

Recommended Preparation: None

3 hours lecture, 3 hours laboratory

Continuation of CS 181, designed to provide the programmer with professional training in memory management, documentation, structured programming, and programming to professional standards using C++. Explores some of the more advanced concepts of preprocessing, low-level data objects, recursion, and dynamic data structures including linked lists, stacks, queues, and trees. Laboratory instruction includes program development and execution.

**CSU, UC**

**282 INTERMEDIATE JAVA PROGRAMMING AND FUNDAMENTAL DATA STRUCTURES 4 UNITS**

Prerequisite: CS 182; MATH 175 or equivalent

Corequisite: None

Recommended Preparation: None

3 hours lecture, 3 hours laboratory

Continuation of CS 182. Students will learn to implement and analyze a variety of data structures and the algorithms used with those data structures. Students will learn to create their own abstract data types and how and when to utilize them. Fundamental data structures include multidimensional arrays, linked lists, stacks, queues, heaps, trees, and hash tables. Students will learn when to use which of the available dynamic memory data structures. Tools for analyzing and predicting run time and memory usage are introduced, as is "big-oh" notation. A variety of sort algorithms are reviewed, analyzed for best, worst and average case performance, and compared with tree traversal algorithms. Students will develop increased sophistication in object-oriented basics such as inheritance, encapsulation, design of abstract data types, and polymorphism. Students will gain experience working on larger programs and managing large, multi-programmer projects. Laboratory instruction includes program development and execution.

**CSU, UC**

**289 COMPUTER ORGANIZATION AND SYSTEMS PROGRAMMING 4 UNITS**

Prerequisite: CS 282

Corequisite: None

Recommended Preparation: None

3 hours lecture, 3 hours laboratory

Introduction to the organization of modern digital computers, beginning with the standard von Neumann model and then moving forward to more recent architectural concepts. A specific architecture/machine will be utilized to study computer architecture at the assembly language and C interface level. Differences in the internal structure and organization of a computer lead to significant differences in performance and functionality; this course addresses some of the various options involved in designing a computer system, and the range of design considerations and trade-offs involved in the design process. Focuses on understanding the components of a computer and their inter-relationships. Programming assignments using C and assembly language will be used to reinforce these concepts including data representation, flow control, addressing techniques, subroutine linkage, macros, interrupts, and traps.

**CSU, UC**

**298 SELECTED TOPICS IN COMPUTER SCIENCE 1-4 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-12 hours

Selected topics in Computer Science not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN COMPUTER SCIENCE 1-4 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-12 hours

Selected topics in Computer Science not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

## DRAFTING TECHNOLOGY

### (SEE CADD TECHNOLOGY)

The Drafting Technology program at Cuyamaca College underwent revision in order to respond to changes in the industry and in the Engineering program requirements at SDSU. Students currently in the program will be able to complete needed courses. If a Modification of Major is needed, please see a counselor.

## ECONOMICS

**110 ECONOMIC ISSUES AND POLICIES 3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

One-semester economics course designed to give students a general elementary knowledge of basic economic concepts and to serve as an introduction to more advanced economics courses. Surveys current economic subjects including consumer economics, inflation, recession, competition, monopoly, world trade and competing economic systems. *May not be taken if ECON 120 or 121 has been taken.*

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

**120 PRINCIPLES OF MACROECONOMICS 3 UNITS (CAN ECON 2)**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Introduction to principles of economic analysis, economic institutions and issues of public policy. Emphasis on macroanalysis including national income accounting, money and banking, business cycles and economic stabilization. There will be some use of graphs and elementary algebra.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**121 PRINCIPLES OF MICROECONOMICS 3 UNITS****(CAN ECON 4)**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Introduction to principles of economic analysis, economic institutions and issues of public policy. Emphasis on the direction of production, allocation of resources, distribution of income through the price system (microanalysis) and international economics. There will be some use of graphs and elementary algebra.

**AA/AS GE, CSU, CSU GE, IGETC, UC****124 PRINCIPLES OF ECONOMICS  
COMPUTER LAB .5 UNIT**

Prerequisite: None

Corequisite: ECON 120 or 121

Recommended Preparation: None

1.5 hours laboratory

Complements ECON 120 and 121 by providing computer-based tutorials to introduce the principles of economic analysis, economic institutions and issues of public policy. *May be repeated for a maximum of 1 unit.*

**Credit/No Credit only.****199 SPECIAL STUDIES OR PROJECTS  
IN ECONOMICS 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

3-9 hours

Individual study, research or projects in Economics under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**298 SELECTED TOPICS IN ECONOMICS 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-9 hours

Selected topics in Economics not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN ECONOMICS 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-9 hours

Selected topics in Economics not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU****EDUCATION****110 INTRODUCTION TO  
AMERICAN EDUCATION 3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Elective course for students interested in exploring career opportunities as a teacher and in strengthening their skills as an instructional aide. In-depth look at teaching methodologies which can be applied by instructional aides and reapplied as a teacher.

**CSU****199 SPECIAL STUDIES OR PROJECTS  
IN EDUCATION 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

3-9 hours

Individual study, research or projects in Education under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**214 DEVELOPING AN ONLINE COURSE 3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

In this introduction to successful online course design and instruction, participants will experience components of an online course from both student and teacher perspectives. Participants will learn to use technologies to support online instruction and will develop sample content and online course components within course management systems such as Blackboard or WebCT. Appropriate pedagogy will be emphasized. *It is recommended that students have basic computer skills (word processing, PowerPoint, email, web browsing).*

**CSU****298 SELECTED TOPICS IN EDUCATION 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-9 hours

Selected topics in Education not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN EDUCATION 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-9 hours

Selected topics in Education not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

## ELECTRONICS TECHNOLOGY

- 110 INTRODUCTION TO BASIC ELECTRONICS** **4 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 3 hours laboratory  
 Exploratory course of study in the laws of physics as they relate to electricity and electronics. Topics include: the history of electrical science, atomic structure, basic electrical laws, DC and AC circuits, semiconductors, integrated circuits, amplifiers, wave forms, electrical test equipment, circuit construction and electrical safety. Background in basic algebra and use of scientific calculators is highly desirable.  
**AA/AS GE, CSU, CSU GE**
- 199 SPECIAL STUDIES OR PROJECTS IN ELECTRONICS TECHNOLOGY** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Electronics Technology under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 298 SELECTED TOPICS IN ELECTRONICS TECHNOLOGY** **1-4 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours  
 Selected topics in Electronics Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN ELECTRONICS TECHNOLOGY** **1-4 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours  
 Selected topics in Electronics Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## ENGINEERING

- 100 INTRODUCTION TO ENGINEERING AND ENGINEERING GRAPHICS** **2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture, 3 hours laboratory  
 Introduction to the engineering profession including an overview of the various fields of engineering, engineering history and ethics. Fundamentals of graphics as a language for communication in all engineering fields. Includes geometric construction, multiview projections and pictorial drawing. Application of graphics to the visualization, representation and documentation of engineering problems. Strong emphasis on engineering design and problem-solving techniques.  
**CSU, UC**
- 119 BASIC ENGINEERING CAD** **3 UNITS**  
 Prerequisite: CADD 115 or ENGR 100 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 CAD fundamentals for engineers. Basic 2D drawing techniques and commands in AutoCAD. Includes geometric construction, multiview and singleview projections, section views, dimensions, and text. *Not open to students with credit in DTEC 130.*  
**CSU, UC, UC credit limit**
- 120 ENGINEERING COMPUTER APPLICATIONS** **3 UNITS**  
 Prerequisite: MATH 180 or concurrent enrollment  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Use of computerized mathematical analysis, computer programming and computer graphics as tools for solving engineering problems.  
**CSU, UC**
- 125 3D PARAMETRIC SOLID MODELING (CAN ENGR 2)** **3 UNITS**  
 Prerequisite: CADD 120ABCD or ENGR 119 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 Advanced graphic communication using 3D Parametric Modeling CAD software including wireframe construction, feature based part construction using extrudes, cuts and revolves, advanced surface shaping using lofts and sweeps, assembly construction and constraining. The course will continue to develop 2D drafting skills including proper organization and layout of component drawing views, dimensioning and tolerancing, descriptive geometry and manufacturing processes. *Also listed as CADD 125. Not open to students with credit in CADD 125 or DTEC 125.*  
**CSU, UC, UC credit limit**

- 170 MECHATRONICS: INTRODUCTION TO MICROCONTROLLERS 1.5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture, 2 hours laboratory  
 Introductory use of microcontrollers to operate motors, lights and other electromechanical devices according to a program and in response to inputs from mechanical, optical and electrical sensors. The microcontrollers will be programmed using a specialized form of the BASIC programming language.
- 171 MECHATRONICS: INTRODUCTION TO ROBOTICS 1.5 UNITS**  
 Prerequisite: ENGR 170 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture, 2 hours laboratory  
 Development of a wheeled robot that will advance, retreat and turn (a) based on commands from a human operator, (b) according to a fixed program, and (c) autonomously, based on programmed "behavior" and data from sensors.
- 172 MECHATRONICS: INTERMEDIATE MICROCONTROLLERS 1.5 UNITS**  
 Prerequisite: ENGR 170 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture, 2 hours laboratory  
 Development of custom circuits using microcontrollers. Interrupt and exception handling, redirection and branching, and direct access to registers. Control of servo and stepper motors, and high power circuits.
- 173 MECHATRONICS: INTERMEDIATE ROBOTICS 1.5 UNITS**  
 Prerequisite: ENGR 171 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture, 2 hours laboratory  
 Development of a walking robot that will advance, retreat, and turn (a) based on commands from a human operator, (b) according to a fixed program, and (c) autonomously, based on programmed "behavior" and data from sensors.
- 199 SPECIAL STUDIES OR PROJECTS IN ENGINEERING 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Engineering under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 200 ENGINEERING MECHANICS—STATICS 3 UNITS (CAN ENGR 8)**  
 Prerequisite: PHYC 190 with a grade of "C" or better  
 Corequisite: MATH 280  
 Recommended Preparation: None  
 3 hours lecture  
 Engineering applications of the principles of static equilibrium of force systems acting on particles and rigid bodies. Centroids and moments of inertia, analysis of trusses, frames and machines, forces in beams, introduction to dry friction.  
**CSU, UC**
- 210 ELECTRIC CIRCUITS 3 UNITS (CAN ENGR 12)**  
 Prerequisite: MATH 280, PHYC 200  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Theory course dealing with the concepts of circuit analysis by reduction methods, source transformation, loop and nodal analysis, alternating current circuits, impedance, power and phasor diagrams.  
**CSU, UC**
- 218 PLANE SURVEYING 4 UNITS (CAN ENGR 10)**  
 Prerequisite: MATH 170 or concurrent enrollment  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 6 hours laboratory  
 Use, care and adjustment of surveying instruments. Fundamental surveying methods, traverse measurements and area computations. Introduction to horizontal and vertical curves, stadia, construction layout. Introduction to topographic mapping. Earth work computations. *(Also listed under Surveying)*  
**CSU, UC**
- 220 ENGINEERING MECHANICS—DYNAMICS 3 UNITS**  
 Prerequisite: ENGR 200  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Kinematics and kinetics of particles and rigid bodies. Newtonian laws of motion, work and energy; linear and angular momentum. Application to engineering problems. Vector notation will be used.  
**CSU, UC**
- 240 ADVANCED SURVEYING 4 UNITS**  
 Prerequisite: ENGR 218  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 3 hours laboratory  
 Topographic, hydrographic and geodetic surveying. Precise equipment and control surveying, city and land surveys. Astronomical observations. State plane coordinates system. Route location and layout, transition, horizontal and vertical curves. Introduction to electronic and photogrammetric methods. U.S. Public Land Surveys and legal descriptions and an introduction to Global Positioning System (G.P.S.). *(Also listed under Surveying)*  
**CSU, UC**

**260 ENGINEERING MATERIALS 3 UNITS****(CAN ENGR 4)**

Prerequisite: CHEM 141 or equivalent, PHYC 190 or equivalent

Corequisite: None

Recommended Preparation: None

3 hours lecture

Atomic and molecular structure of materials utilized in engineering. Analysis of the relationships between structure of materials and their mechanical, thermal, electrical, corrosion and radiation properties, together with examples of specific application to engineering problems.

**CSU, UC****270 DIGITAL SYSTEMS 4 UNITS**

Prerequisite: MATH 180

Corequisite: None

Recommended Preparation: None

3 hours lecture, 3 hours laboratory

Analysis, simulation and construction of combinational and sequential digital logic systems.

**CSU, UC****298 SELECTED TOPICS IN ENGINEERING 1-4 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-12 hours

Selected topics in Engineering not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN ENGINEERING 1-4 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-12 hours

Selected topics in Engineering not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU****ENGLISH****049A BASIC SPELLING AND PHONICS 1 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

1 hour lecture

Students will learn to hear and use the sounds of the English phonetic system to improve their reading and spelling skills. Focuses on those parts of the English sound system that are consistent and regular. Learn common spelling rules. *Not open to students with credit in ENGL 049. Credit/No Credit only. Non-associate degree applicable.*

**049B INTERMEDIATE SPELLING AND PHONICS 1 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

1 hour lecture

In this second spelling and phonics course, students will continue their study of the English spelling system by focusing on the way words look. Students will learn common spelling rules as well as exceptions to the rules, and be introduced to common spelling demons. Learn strategies for committing words to memory. **Credit/No Credit only. Non-associate degree applicable.**

**053 BEYOND BASIC WRITING 1 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

1 hour lecture

Designed for individualized and group instruction, focusing on writing skills essential for effective expression in all college classrooms. Workshop approach allows for directed practice in areas of need as determined by the instructor and student. *May be repeated for a maximum of 4 units. Credit/No Credit only. Non-associate degree applicable.*

**071 UPGRADE YOUR SENTENCES .5 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

.5 hour lecture

Mini-course which focuses on writing complete, error-free sentences using effective punctuation and transitional devices. Learn to identify and correct sentence boundary problems and to structure simple and complex sentences with clarity and precision. *May be repeated for a maximum of 2 units. Credit/No Credit only. Non-associate degree applicable.*

**079 HOW WRITERS GET STARTED WITH COMPUTERS .5 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

.5 hour lecture

Hands-on mini-course in which students learn how to use the computer as a study assistant and communication tool for writing classes. The basics made simple: sending email, saving files, word processing, formatting, printing, searching the Web for research assignments, and much more. New writing technologies for self-empowerment in the digital age. *May be repeated for a maximum of 2 units. Credit/No Credit only. Non-associate degree applicable.*

- 090 BASIC ENGLISH SKILLS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: Placement based on assessment process  
 3 hours lecture, 1 hour laboratory  
 Designed to teach basic English skills through lecture, small group and individualized instruction. Promotes knowledge of spelling, vocabulary and grammar. Students will also demonstrate their knowledge by writing sentences and short paragraphs. **Credit/No Credit only. Non-associate degree applicable.**
- 090R READING SKILLS DEVELOPMENT 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: Placement based on assessment process or equivalent skills. Recommend concurrent enrollment in ENGL 090  
 3 hours lecture, 1 hour laboratory  
 Designed as a developmental course for all students needing to improve basic reading skills. Focuses on building vocabulary, improving comprehension of short reading selections, increasing reading speed and introducing basic study skills. **Credit/No Credit only. Non-associate degree applicable.**
- 098 ENGLISH FUNDAMENTALS 4 UNITS**  
 Prerequisite: Credit in ENGL 090 and 090R or equivalent or assessment recommendation for ENGL 098  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture  
 A course in basic English skills. Students will study grammar, punctuation and standard written English usage. With an introduction to the writing process, students will learn basic sentence patterns to compose paragraphs and one multi-paragraph essay. *It is recommended that students also enroll in ENGL 098R.* **Non-associate degree applicable.**
- 098R READING FUNDAMENTALS 3 UNITS**  
 Prerequisite: Credit in ENGL 090 and 090R or equivalent or assessment recommendation for ENGL 098  
 Corequisite: None  
 Recommended Preparation: Strongly recommend concurrent enrollment in ENGL 098  
 3 hours lecture, 1 hour laboratory  
 Designed to provide an introduction to effective reading skills and strategies. Focuses on expanding vocabulary, improving reading comprehension and increasing reading speed. Students will also learn basic strategies for critical thinking. **Non-associate degree applicable.**
- 110 COLLEGE COMPOSITION 3 UNITS**  
*(formerly ENGL 111)*  
 Prerequisite: ENGL 098 or ESL 106 with a grade of "C" or better or "CR" or equivalent or assessment with an appropriate score  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 1 hour laboratory  
 Designed to prepare students for entry into ENGL 120 (English 1A, traditional freshman composition for transfer). Students will practice the writing process by composing sentences, paragraphs and essays with emphasis on correct and effective expression through the study of appropriate language skills. Readings will be studied to stimulate clarity of thought and written expression. By the end of the course, students will be able to write a basic position paper by using and acknowledging at least one source.  
**AA/AS GE, CSU**
- 110R PRINCIPLES OF COLLEGE READING 3 UNITS**  
*(formerly ENGL 111R)*  
 Prerequisite: Successful completion of ENGL 098R or assessment recommendation for ENGL 110  
 Corequisite: None  
 Recommended Preparation: Recommend concurrent enrollment in ENGL 110  
 3 hours lecture, 1 hour laboratory  
 Designed to provide effective reading skills and strategies necessary for the reading of college level material. Focuses on developing vocabulary geared toward college textbooks and learning strategies for efficient reading comprehension and retention. Students will also learn college level inferential and critical reading skills.
- 120 COLLEGE COMPOSITION AND READING 3 UNITS**  
**(CAN ENGL 2; CAN ENGL SEQ A = ENGL 120+122)**  
 Prerequisite: ENGL 110 with a grade of "C" or better or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 1 hour laboratory  
 Traditional freshman composition course. Students will study the elements and principles of composition through the practice of writing narrative and expository essays and a research paper. Utilizing word processing in the computer lab, revision is stressed as a means of achieving effective skills in writing. Assigned readings stimulate critical thinking and effective writing. Emphasis on using outside sources and documenting them according to MLA format.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 120R ADVANCED READING AND CRITICAL THINKING SKILLS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: Successful completion of ENGL 110R or equivalent based on reading assessment measures. Recommend concurrent enrollment in ENGL 120.  
 3 hours lecture  
 Focuses on critical thinking and analytical interpretation of college reading selections in the sciences and liberal arts. Students will learn strategies to improve their vocabulary and reading comprehension, as well as increase reading speed and fluency.  
**CSU**
- 122 INTRODUCTION TO LITERATURE 3 UNITS**  
**(CAN ENGL 4; CAN ENGL SEQ A = ENGL 120+122)**  
 Prerequisite: ENGL 120 with a grade of "C" or better or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introduces literature through the reading, analysis and discussion of various genres such as myths, folktales, essays, short stories, poems, plays and novels. Literature encompasses different time periods and a variety of male and female authors from around the world. Students will use the literature to write critical and appreciative essays.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

- 124 ADVANCED COMPOSITION: CRITICAL REASONING AND WRITING 3 UNITS**  
Prerequisite: ENGL 120 with a grade of "C" or better or equivalent  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture, 1 hour laboratory  
Designed to develop critical thinking, reading and writing skills beyond the level achieved in ENGL 120. Focuses on the development of logical reasoning and analytical and argumentative writing skills.  
**CSU, CSU GE, IGETC, UC**
- 126 CREATIVE WRITING 3 UNITS**  
*(CAN ENGL 6)*  
Prerequisite: ENGL 110 with a grade of "C" or better or "CR" or assessment for ENGL 120 or equivalent  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture  
This course affords students the opportunity to write short prose, poetry and drama. In a positive atmosphere, students will explore, study and analyze techniques in the works of professional writers and in the works of students. Ample opportunity will be directed toward publication of students' work.  
**CSU, UC**
- 135-138 NEWSPAPER PRODUCTION 4 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture, 3 hours laboratory  
Provides practice in producing tabloids and newsletters, particularly the campus newspaper. Instruction in the basic principles of journalism including how to gather, evaluate and write basic types of news stories, and to implement them in the production of the campus newspaper. Additional hours per week outside of class required.  
**CSU**
- 150 LIBRARY RESEARCH METHODS 1 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
1 hour lecture  
Designed to give students confidence in doing research and to provide skills for compiling a term paper. Introduces students to the role of information and libraries, time management skills in research, use of computerized and standard library sources, and a brief introduction to the Internet. Emphasis on using information as a basis for effective decision-making to improve personal and professional endeavors. Students will design a research project, implement an efficient research strategy, and complete a written research project.  
**CSU, UC credit limit**
- 171 HOW WRITERS GET MOTIVATED TO WRITE 1 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
1 hour lecture  
Mini-course emphasizing effective strategies for thinking and writing creatively. How to get motivated and focused when faced with writing assignments and exams. Methods for effective thinking out loud and on paper. Strategies for success in college writing and test-taking for any level of student. **Credit/No Credit only.**
- 198 SUPERVISED TUTORING 0 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
TBA hours  
Uses a variety of educational tools to assist students with various learning needs. Can be used to strengthen prerequisite skills prior to enrolling in a specific course or to receive supplemental assistance while concurrently enrolled in another course. *May be repeated with different content.*  
**No fee/no credit course.**
- 199 SPECIAL STUDIES OR PROJECTS IN ENGLISH 1-3 UNITS**  
Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
3-9 hours  
Individual study, research or projects in English under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 201 INTRODUCTION TO IMAGES OF WOMEN IN LITERATURE 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: ENGL 120  
3 hours lecture  
Focuses on women and their roles in society as portrayed in various forms of literature, past and present. Students may read poetry, short stories, novels, plays, and view films which will provide them with a broad base for understanding the changing role of women throughout history. Works by significant male and female authors will be used reflecting a broad spectrum of political, cultural and historical views. Authors sampled may include Jane Austen, George Eliot, Virginia Woolf, William Shakespeare, Amy Tan, Alice Walker, Sandra Cisneros, Norman Mailer, Thomas Hardy, Ernest Hemingway, Sylvia Plath and others.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 202 INTRODUCTION TO FILM AS LITERATURE 3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: ENGL 120  
3 hours lecture  
Survey course to study film as a 20th century form of literature. Students will view a variety of films spanning the 100 years of film history, from the silent era to the present, to develop an understanding of the different types of films, the film-making process itself, and the historical, political and sociological context of cinema. Key figures in film history such as Buster Keaton, John Ford, Orson Welles, Alfred Hitchcock, Spike Lee, Woody Allen, Akira Kurosawa and others will be studied.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

- 207 ROMANTIC FICTION 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Literature survey course that focuses on the reading and analysis of romance novels. Beginning with the female gothic, the class will cover the development of the popular romance novel. Covers the classic novels of Radcliffe, Burney, Bronte and Austen as well as more modern American and English romance novelists. Oral and written discussion of readings and their relevance to current trends will be emphasized. Analytical or original creative writings will be included.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 214 MASTERPIECES OF DRAMA 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: ENGL 120  
 3 hours lecture  
 Surveys masterpieces in drama beginning with works from ancient Greece and concluding with plays from the 20th century. Although other types of drama may be discussed, the primary texts will be comedies and tragedies. Representative playwrights include Sophocles, William Shakespeare, Moliere, Henrik Ibsen, Susan Glaspell, Eugene O'Neill, Arthur Miller, Samuel Beckett, Lorraine Hansberry, August Wilson and others. Texts will be read, analyzed, discussed, and written about in essay format.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 217 FANTASY AND SCIENCE FICTION SURVEY 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: ENGL 120  
 3 hours lecture  
 Survey course designed as a reading course of fantasy and science fiction, a unique literary genre with an unparalleled and still growing popularity. Readings selected cover a diverse spectrum of fantasy and science fiction. Oral and written discussion of such readings and their relevance to current trends will be emphasized. Analytical or original creative writings will be included.  
**AA/AS GE, CSU, CSU GE, UC**
- 221 BRITISH LITERATURE I 3 UNITS**  
**(CAN ENGL 8; CAN ENGL SEQ B = ENGL 221+222)**  
 Prerequisite: ENGL 120 with a grade of "C" or better or equivalent  
 Corequisite: None  
 Recommended Preparation: ENGL 122  
 3 hours lecture  
 Surveys British literature from the Old English Period to the Romantic Period. Students will read and interpret literature from historical, social and philosophical viewpoints. Authors sampled may include Geoffrey Chaucer, William Langland, Edmund Spenser, William Shakespeare, Ben Johnson, John Milton, Lady Mary Wroth, Aphra Behn, and Jonathan Swift.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 222 BRITISH LITERATURE II 3 UNITS**  
**(CAN ENGL 10; CAN ENGL SEQ B = ENGL 221+222)**  
 Prerequisite: ENGL 120 with a grade of "C" or better or equivalent  
 Corequisite: None  
 Recommended Preparation: ENGL 122  
 3 hours lecture  
 Surveys British literature from the Romantic Period to the present. Students will read and interpret literature against a background of the historical, social and philosophical developments of the time. Authors sampled may include William Blake, Mary Wollstonecraft, William Wordsworth, Samuel Coleridge, Lord Byron, Percy Shelley, John Keats, Elizabeth Browning, Lord Tennyson, Robert Browning, Emily Bronte, Matthew Arnold, Christina Rossetti, Oscar Wilde, Jane Austen, Thomas Hardy, William Yeats, Virginia Woolf, James Joyce, Doris Lessing and Derek Walcott.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 231 AMERICAN LITERATURE I 3 UNITS**  
**(CAN ENGL 14; CAN ENGL SEQ C = ENGL 231+232)**  
 Prerequisite: ENGL 120 with a grade of "C" or better or equivalent  
 Corequisite: None  
 Recommended Preparation: ENGL 122  
 3 hours lecture  
 First course in the study of American literature which explores literary works and their political, religious, economic and aesthetic context from pre-colonial America until 1860. Reading selections may consist of poetry, short stories, novels and nonfiction prose, including essays and autobiographies. Authors studied include various anonymous Native Americans, Pedro de Casteñeda, William Bradford, Anne Bradstreet, Benjamin Franklin, Thomas Jefferson, Judith Sargent Murray, Washington Irving, Catherine Sedgwick, James Fennimore Cooper, Henry David Thoreau, Walt Whitman and many others. Selections from the major writers will be read, analyzed, discussed and written about in essay format.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 232 AMERICAN LITERATURE II 3 UNITS**  
**(CAN ENGL 16; CAN ENGL SEQ C = ENGL 231+232)**  
 Prerequisite: ENGL 120 with a grade of "C" or better or equivalent  
 Corequisite: None  
 Recommended Preparation: ENGL 122  
 3 hours lecture  
 Second course in the study of American literature which explores literary works and their political, religious, economic and aesthetic context from 1860 to the present. Reading selections may consist of poetry, short stories, novels, plays and nonfiction prose, including essays. Authors to be studied include Abraham Lincoln, Frederick Douglass, Mark Twain, Edgar Allan Poe, Walt Whitman, Emily Dickinson, Eugene O'Neill, Gertrude Stein, Langston Hughes, Ernest Hemingway, John Steinbeck, Toni Morrison and others. Selections from the major writers will be read, analyzed, discussed and written about in essay format.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

**270 WORLD LITERATURE I 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: ENGL 120  
 3 hours lecture

Surveys major works from various continents and cultures prior to 1500 A.D. Focuses on the historical, social, philosophical and cultural aspects of literature and studies the roles of women and men. Minority perspectives will be included. Students will read works from the ancient Mediterranean world, South and East Asia, Europe, Middle East, Africa, and the early Americas.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**271 WORLD LITERATURE II 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: ENGL 120  
 3 hours lecture

Surveys major works from various continents and cultures from 1500 A.D. to the present. Focuses on the historical, social, philosophical and cultural aspects of literature and studies the roles of women and men. Minority perspectives will be included. Students will read works from Asia, the Middle East, Africa, Europe, the Americas, Australia and New Zealand.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**275 LITERARY PERIOD 3 UNITS****276 MAJOR AUTHOR 3 UNITS****277 LITERARY THEME 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: ENGL 120  
 3 hours lecture

These courses are designed to provide an in-depth study of a literary period (275), a major author (276), or a theme in literature (277). The readings selected will cover a diverse spectrum of literature drawn from one literary period (e.g., ENGL 275 Literary Period: American Romantic Poets), one major author (e.g., The Short Stories of Flannery O'Connor), or a theme in literature (e.g., Chicano Literature), in addition to at least one secondary work focusing on the literature. Oral and written discussion of such readings and their relevance to the period, author or theme will be emphasized. May be repeated as the subject matter changes as indicated in the subtitle (e.g., Short Stories of Flannery O'Connor or Poetry of Emily Dickinson).

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**298 SELECTED TOPICS IN ENGLISH 1-4 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours

Selected topics in English not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN ENGLISH 1-4 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours

Selected topics in English not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

## ENGLISH AS A SECOND LANGUAGE

English as a Second Language classes are designed to improve English reading, writing, grammar, listening and speaking skills. Learning English will help students attain employment or pursue degree and certificate programs that use the English language for instruction. Classes at the 100 level and above can be used as elective credit for the Associate Degree. ESL 103 and 106 transfer as elective credit to CSU/UC.

The ESL program is divided into four levels. Students should see a counselor to select additional courses in other areas for which their language skills will be acceptable.

**Level I:** Basic college ESL focuses on reading short passages, writing sentences, connecting them into basic paragraphs, and having discussions using the present, past and future verb tenses.

ESL 096	English as a Second Language I	5
ESL 097	Listening and Speaking I	3
ESL 098	ESL Reading and Vocabulary Development I	3
ESL 099A	ESL for the Workplace I	3

**Level II:** Low-intermediate college ESL focuses on reading short academic passages, writing complete paragraphs, discussing topics and giving short presentations using the simple, progressive, and present and past perfect verb tenses.

ESL 099A or B	ESL for the Workplace I or II	3
ESL 100	English as a Second Language II	5
ESL 101	Listening and Speaking II	3
ESL 102	ESL Reading and Vocabulary Development II	3

**Level III:** High-intermediate college ESL focuses on reading more complex academic passages, connecting paragraphs into short essays, note-taking and study skills, and orally presenting academic work using all verb tenses.

ESL 099B	ESL for the Workplace II	3
ESL 103	English as a Second Language III	5
ESL 104	Listening and Speaking III	3
ESL 105	ESL Reading and Vocabulary Development III	3

**Level IV:** Advanced college ESL focuses on reading college level texts, writing more complex essays, increasing note-taking and study skills, and presenting oral reports using all verb tenses.

ENGL 098R	Reading Fundamentals	3
ESL 106	English as a Second Language IV	5

**Students will receive an "ESL Certificate of Completion" when they complete ESL 106 with a grade of "C" or better.**

## ENGLISH AS A SECOND LANGUAGE COURSES

### 010 AMERICAN CULTURE I 3 UNITS

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

First course in American culture which allows students to practice applied reading, writing, listening and speaking skills gained in the first two levels of the ESL program. Study various aspects of American culture such as lifestyles, institutions, values and issues. **Credit/No Credit only. Non-associate degree applicable.**

### 020 AMERICAN CULTURE II 3 UNITS

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Second course in American culture which allows students to practice applied reading, writing, listening and speaking skills gained in the third and fourth levels of the ESL program. Study various aspects of American culture such as lifestyles, attitudes, government, customs and traditions. **Credit/No Credit only. Non-associate degree applicable.**

### 025 ESL WORKPLACE SKILLS LAB 1 UNIT

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours laboratory

ESL instruction in preparation for a vocational program. Students will work independently to complete computer modules in a vocational area in order to increase knowledge of vocabulary and subject matter. Provides complementary instruction in language and academic skills necessary for students to succeed in a vocational program. Vocational areas offered will be listed in class schedule. **Credit/No Credit only. Non-associate degree applicable.**

### 096 ENGLISH AS A SECOND LANGUAGE I 5 UNITS

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: Placement based on assessment process or equivalent skills  
 5 hours lecture, 1 hour laboratory

First core course in the study of English reading, writing and grammar designed for students whose first language is other than English. Includes the study of basic reading, paragraph organization and format, grammar, and sentence structure. One hour a week will be spent using the computer lab software designed to reinforce reading, writing and grammar skills introduced in class. **Credit/No Credit only. Non-associate degree applicable.**

### 097 LISTENING AND SPEAKING I 3 UNITS

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: Placement based on assessment process or equivalent skills  
 3 hours lecture

First course in the study of English listening and speaking skills designed for students whose first language is other than English. Designed to improve listening comprehension as well as increase fluency and accuracy in spoken English in both academic and vocational environments. Practice skills learned in ESL 096, learn and use new vocabulary, and acquire academic skills such as selective listening, note-taking, and problem solving. **Credit/No Credit only. Non-associate degree applicable.**

### 098 ESL READING AND VOCABULARY DEVELOPMENT I 3 UNITS

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: Advisory placement in ESL 096 or equivalent based on assessment process  
 3 hours lecture

Beginning level course designed to extend ESL students' vocabulary and reading ability. Emphasis on improving reading skills and strategies as well as techniques and exercises for developing vocabulary. Students are encouraged to take this class concurrently with ESL 096. **Credit/No Credit only. Non-associate degree applicable.**

### 099A ESL FOR THE WORKPLACE I 3 UNITS

Prerequisite: Advisory placement based on assessment process or equivalent skills  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 1 hour laboratory

First course in the study of English for the workplace for students whose first language is other than English. Supplements language skills taught in ESL 096 and focuses on using English in business situations. Learn simple business vocabulary, basic writing and oral communication skills, and word processing skills. **Credit/No Credit only. Non-associate degree applicable.**

### 099B ESL FOR THE WORKPLACE II 3 UNITS

Prerequisite: Advisory placement based on successful completion of ESL 099A or equivalent based on assessment process or equivalent skills  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 1 hour laboratory

Second course in the study of English for the workplace for students whose first language is other than English. Supplements language skills taught in ESL 100 and develops and adds to business English skills taught in ESL 099A. Learn business vocabulary, intermediate writing and oral communication skills, and computer skills. **Credit/No Credit only. Non-associate degree applicable.**

**100 ENGLISH AS A SECOND LANGUAGE II 5 UNITS**

Prerequisite: Successful completion of ESL 096 or assessment recommendation for ESL 100

Corequisite: None

Recommended Preparation: None

5 hours lecture, 1 hour laboratory

Second core course in the study of English reading, writing and grammar designed for students whose first language is other than English. Further develops and adds to the basic skills taught in ESL 096. Includes intermediate reading, paragraph writing, grammar and sentence structure. One hour a week will be spent using the computer lab software designed to reinforce reading, writing and grammar skills introduced in class.

**101 LISTENING AND SPEAKING II 3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: Successful completion of ESL 097 or equivalent based on assessment process

3 hours lecture

Second course in the study of English listening and speaking skills designed for students whose first language is other than English. Further develops and adds to skills learned in ESL 097. Includes intermediate listening comprehension practice as well as discussion and presentation skills in spoken English in both academic and vocational environments. Practice skills learned in ESL 100, learn and use new vocabulary, and practice academic skills such as selective reading and listening, note-taking, using outside resources and problem solving.

**102 ESL READING AND VOCABULARY DEVELOPMENT II 3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: ESL 098 or advisory placement in ESL 100 or 103 based on assessment process

3 hours lecture

Intermediate level course designed to extend the range of ESL students' vocabulary and reading ability. Focuses on improving reading skills and strategies as well as understanding and use of academic vocabulary. Academic vocabulary development is also an emphasis. Students will gain both a passive and active command of word form and word choice for the intermediate level, and learn a variety of words and how to use them. Students are encouraged to take this class concurrently with ESL 100.

**103 ENGLISH AS A SECOND LANGUAGE III 5 UNITS**

Prerequisite: Successful completion of ESL 100 or assessment recommendation for ESL 103

Corequisite: None

Recommended Preparation: None

5 hours lecture, 1 hour laboratory

Third core course in the study of English reading, writing and grammar designed for students whose first language is other than English. Further develops and adds to skills taught in ESL 100. Includes high-intermediate reading, paragraph and short essay writing, grammar and sentence structure. One hour a week will be spent using the computer lab software designed to reinforce reading, writing and grammar skills introduced in class.

**CSU, UC credit limit**

**104 LISTENING AND SPEAKING III 3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: Successful completion of ESL 101 or equivalent based on assessment process

3 hours lecture

Third course in the study of English listening and speaking skills designed for students whose first language is other than English. Further develops and adds to skills learned in ESL 101. Includes high-intermediate listening comprehension practice as well as discussion and presentation skills in spoken English in both academic and vocational environments. Practice skills learned in ESL 103, learn and use new vocabulary, and practice academic skills such as close reading and listening, note-taking, analyzing and classifying, using outside resources and problem solving.

**105 ESL READING AND VOCABULARY DEVELOPMENT III 3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: ESL 102 with a grade of "C" or better or advisory placement in ESL 103 or 106 based on assessment process

3 hours lecture

Third and final course designed to extend ESL students' academic vocabulary and ability to read college-level texts at the advanced level. Focuses on improving reading skills and strategies as well as understanding and use of academic vocabulary. Students learn a variety of words and how to use them. Students are encouraged to take this class concurrently with ESL 103.

**106 ENGLISH AS A SECOND LANGUAGE IV 5 UNITS**

Prerequisite: Successful completion of ESL 103 or assessment recommendation for ESL 106

Corequisite: None

Recommended Preparation: None

5 hours lecture, 1 hour laboratory

Fourth core course in the study of English reading, writing and grammar for students whose first language is other than English. Further develops and adds to skills taught in ESL 103. Includes advanced reading, paragraph and essay writing, grammar and sentence structure. One hour a week will be spent using the computer lab software designed to reinforce reading, writing and grammar skills introduced in class.

**CSU, UC credit limit**

**199 SPECIAL STUDIES OR PROJECTS IN ENGLISH AS A SECOND LANGUAGE 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

3-9 hours

Individual study, research or projects in English as a Second Language under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**298 SELECTED TOPICS IN ENGLISH AS A SECOND LANGUAGE 1-5 UNITS**

Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
1-15 hours

Selected topics in English as a Second Language not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN ENGLISH AS A SECOND LANGUAGE 1-5 UNITS**

Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
1-15 hours

Selected topics in English as a Second Language not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**119 ENTREPRENEURSHIP: FINANCING AND WRITING A BUSINESS PLAN 3 UNITS**

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

Designed to provide prospective small business owners or managers with the knowledge required to write a business plan and to understand and control the cash management function of their business. Emphasis on the types of financing, understanding debt vs. equity financing, cash flow analysis, borrowing and investment, forecasting and budgeting.

**CSU**

**141 ENTREPRENEURSHIP: MANAGING A NEW BUSINESS 3 UNITS**

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

Designed to help students apply theories of marketing, management, personnel, finance and production to problems encountered daily in managing a business. Focuses on practical solutions to common business management problems.

**CSU**

## ENTREPRENEURSHIP–SMALL BUSINESS MANAGEMENT

### BUSINESS (ENTREPRENEURSHIP) COURSES

**111 ENTREPRENEURSHIP: STARTING AND DEVELOPING A BUSINESS 3 UNITS**

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

Designed to provide the prospective small business manager with the most up-to-date skills necessary in the planning function of opening one's own business. Emphasis on sources of financing, site locations, legal problems, marketing surveys, organizational structure, and self-analysis to determine one's personal readiness for entrepreneurship.

**CSU**

**112 ENTREPRENEURSHIP: SUCCESSFUL MARKETING 3 UNITS**

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

Designed to provide the small business owner with the necessary skills to market a product or service. Examines the essential elements of a marketing strategy, the four P's: Product, Place (Distribution), Price and Promotion. Also examines the relationship between sales and marketing and how they function together in the small business environment.

**CSU**

## ENVIRONMENTAL HEALTH AND SAFETY TECHNOLOGY

**100 INTRODUCTION TO ENVIRONMENTAL AND OCCUPATIONAL SAFETY AND HEALTH (OSH) TECHNOLOGY 4 UNITS**

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
4 hours lecture

Designed to provide a general overview of the environmental technology (EnvT) field with emphasis on hazardous materials, hazardous waste management, and their effect upon the environment and worker health and safety. Discussion of the history of pollution and workplace hazards leading to current legislation, and current best practices of handling hazardous substances to minimize the harmful impact on society and the environment will be stressed.

**CSU**

**110 POLLUTION PREVENTION 3 UNITS**

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

Centers on various raw materials and chemicals used in industry, examining the changes that occur as they move through the industrial process and understanding the material balance concept of inventory. Discussion of applicable regulations will be included. Topics include the importance of waste minimization/pollution prevention concepts, storm water management, and residential waste generation, reduction and prevention. Students will develop a waste source reduction plan.

**CSU**

**130 ENVIRONMENTAL/OCCUPATIONAL HEALTH EFFECTS OF HAZARDOUS MATERIALS 3 UNITS**

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

Covers the acute and chronic health effects produced by exposure to chemical, physical and biological agents. Emphasis on hazardous materials commonly associated with industrial operations, waste disposal, and remediation sites. Topics include routes of entry, toxic effects, risk evaluation, permissible exposure limits, medical surveillance, control methods for reducing exposure, and using Material Safety Data Sheets (MSDS) to develop strategies to reduce worker exposure.

**CSU**

**135 GENERAL INDUSTRY SAFETY STANDARDS 3 UNITS**

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

Designed to provide an overview of elements which are incorporated in a comprehensive general industrial safety program (Cal/OSHA). Emphasizes methods used to reduce accidents/injuries through application of workplace health protection and safety fundamentals. Topics include protocols, safety audits, data collection and analysis techniques, interpretation of safety data, safety inspections, development and implementation of safety programs, worker education, and essential Personal Protection Equipment (PPE).

**CSU**

**145 CONSTRUCTION SAFETY STANDARDS 3 UNITS**

Prerequisite: None  
Corequisite: None  
Recommended Preparation: ENVT 100  
3 hours lecture

This course introduces students to the California and Federal (Cal/OSHA and Fed/OSHA) construction safety standards and regulations. Topics include an integrated study of hazard recognition and abatement principles related to the construction worksite, and study of compliance issues and challenges facing safety professionals including mishap and case study analysis, California and Federal construction safety standards, worksite inspection, interfacing with compliance officials, vertical and horizontal standards, and common construction industry compliance issues.

**150 HAZARDOUS WASTE MANAGEMENT APPLICATIONS 4 UNITS**

Prerequisite: ENVT 100 or concurrent enrollment  
Corequisite: None  
Recommended Preparation: None  
4 hours lecture

Overview of hazardous waste regulations with emphasis on generator compliance, site investigation and remediation, permitting, enforcement and liability. Lecture portion explains the hazardous waste regulatory framework, introduces students to the wide variety and types of environmental resources available, and develops research skills in the hazardous waste area. Laboratory portion complements the lectures by providing hands-on application of the regulations at the technician level. Proper methods of preparing a hazardous waste manifest, labeling of storage containers, sampling and analysis, preparing a Phase I Environmental Audit, and selecting environmental consultants are among the many skills developed in the laboratory.

**CSU**

**199 SPECIAL STUDIES OR PROJECTS IN ENVIRONMENTAL HEALTH AND SAFETY TECHNOLOGY 1-3 UNITS**

Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
3-9 hours

Individual study, research or projects in Environmental Health and Safety Technology under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**200 HAZARDOUS MATERIALS MANAGEMENT (HMM) APPLICATIONS 4 UNITS**

Prerequisite: ENVT 100 or concurrent enrollment  
Corequisite: None  
Recommended Preparation: None  
4 hours lecture

Requirements and applications of federal, state and local hazardous material laws and regulations. Emphasizes program compliance with the OSHA Hazard Communication Plan, EPA Community Right-To-Know, Department of Transportation, Proposition 65, and Emergency Response Plan. Lecture portion provides an understanding of the legal framework of hazardous materials laws and requirements. Step-by-step program developments: written plan, obtaining/interpreting MSDSs, labeling, emergency responders site map, shipping, handling and training. Laboratory portion: students will develop plans related to hazardous materials management through hands-on program development: DEH/HMD Hazardous Material Business Plan, OSHA Hazardous Communication Plan, and components of a CalARP and RMP as well as planning and reporting functions.

**CSU**

- 201 INTRODUCTION TO INDUSTRIAL HYGIENE AND OCCUPATIONAL HEALTH 4 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: ENVT 100 or concurrent enrollment  
 3 hours lecture, 3 hours laboratory  
 Anticipation, recognition, reevaluation and control of biological, chemical and physical hazards in the workplace. Introduction to the development of industrial hygiene, occupational health and safety as a professional discipline. Provides student with an understanding of basic physiological processes and the effects caused by occupational exposure to hazards. Students will survey various occupational health and safety programs and government regulations. Familiarizes students with industrial hygiene monitoring and sampling techniques for airborne contaminants, noise, heat, radiation and illumination.  
**CSU**
- 205 SAFETY AND RISK MANAGEMENT ADMINISTRATION 4 UNITS**  
 Prerequisite: ENVT 100 or concurrent enrollment  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture  
 Hands-on instruction on how accidents and incidents occur in the occupational health and safety environment. Instruction in the establishment and maintenance of safety programs and comprehensive analysis of occupational health programs with emphasis on safety program management. Topics include: planning approaches to safety and health management used by international, national and local regulatory agencies, insurance companies and professional societies; risk management; worker compensation; employee accommodations and the workplace. Students will develop plans related to safety and risk management.  
**CSU**
- 210 INDUSTRIAL WASTEWATER AND STORMWATER MANAGEMENT 4 UNITS**  
 Prerequisite: ENVT 100 or concurrent enrollment  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture  
 Overview of water/wastewater regulations with emphasis on federal, state and local regulatory standards. Integrated study of the principles of wastewater and stormwater management including hydrology, water distribution, wastewater collection, stormwater management and overall safe drinking water issues.  
**CSU**
- 215 AIR QUALITY MANAGEMENT 3 UNITS**  
 Prerequisite: ENVT 100 or concurrent enrollment  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Overview of air quality regulations with an emphasis on federal, state and local requirements. Integrated study of the principles of air permits and permit compliance including source testing, emission reduction, inspections, monitoring, stationary and mobile sources, air toxics, new equipment shakedown, and overall global air quality issues.  
**CSU**
- 230 SAFETY AND EMERGENCY RESPONSE 4 UNITS**  
 Prerequisite: ENVT 100 or concurrent enrollment  
 Corequisite: None  
 Recommended Preparation: ENVT 130 or equivalent  
 3 hours lecture, 3 hours laboratory  
 Designed to provide students with hands-on instruction in safety and emergency response to chemical and physical exposures in industrial and field settings. Topics include: hazard analysis; contingency planning; housekeeping and safety practices including proper use and selection of PPE, site control and evaluation; handling drums and containers; field sampling and monitoring; proper use of instruments; incident response planning; emergency response including field exercises in the use of PAPR and SCBA; and an understanding of the ICS system. Satisfies requirements for generalized employee training under OSHA [29 CFR 1910.120 and Title 8, California Code of Regulations 5192 (e) (3) (A)].  
**CSU**
- 240 COOPERATIVE WORK EXPERIENCE 1-4 UNITS**  
 Prerequisite: ENVT 100  
 Corequisite: None  
 Recommended Preparation: None  
 75 hours paid or 60 hours unpaid work experience per unit  
 Practical application of principles and procedures learned in the classroom to various phases of Environmental Technology. Work experience will be paid or volunteer positions at local environmental technology industries or governmental agencies that regulate environmental industries. Placement assistance will be provided, but students are required to select and secure a placement site. Minimum of one unit of cooperative work experience is required to complete the ENVT certificate/degree. *May be repeated for a maximum of 8 units.*  
**CSU**
- 298 SELECTED TOPICS IN ENVIRONMENTAL HEALTH AND SAFETY TECHNOLOGY 1-4 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours  
 Selected topics in Environmental Health and Safety Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN ENVIRONMENTAL HEALTH AND SAFETY TECHNOLOGY 1-4 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours  
 Selected topics in Environmental Health and Safety Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## EXERCISE SCIENCE

Courses which meet the activity requirement for graduation have an asterisk (\*). Intercollegiate sports do not meet the activity requirement.

Exercise Science **activity** and **intercollegiate sports** classes which are indicated by a number ONLY (ES 001) may be taken FOUR times. An activity class indicated by a number AND a letter (ES 014A) may be repeated ONCE, provided that the TOTAL enrollment in that type of activity (e.g., body building) not exceed FOUR. Students must progress from beginning through intermediate and advanced levels. The following may not be repeated: ES 080ABCD, ES 084ABCD, ES 088ABCD.

A **physical examination** is recommended for all Exercise Science classes if the student has medical problems or is over the age of 30.

### EXERCISE SCIENCE COURSES

<p><b>001*</b>    <b>ADAPTED PHYSICAL EXERCISE</b>                    <b>1 UNIT</b></p> <p>Prerequisite: None Corequisite: None Recommended Preparation: None 1 hour lecture, 1 hour laboratory</p> <p>Assessment of physical performance status and postural evaluation. Individually prescribed exercise program and individually prescribed programs for physically handicapped. Recreational games and individual sports adapted to students' capabilities. <b>Credit/No Credit only.</b> <b>CSU, UC credit limit</b></p>	<p><b>009*</b>    <b>AEROBIC DANCE EXERCISE</b>                            <b>1 UNIT</b></p> <p>Prerequisite: None Corequisite: None Recommended Preparation: None 2 hours lecture/laboratory</p> <p>Participation in aerobic dance exercise emphasizing conditioning of the musculoskeletal system, improvement of the cardiovascular system, increasing the efficiency of the respiratory system and increasing flexibility. Principles of physical fitness, conditioning and other relevant health-related topics will be covered. <b>CSU, UC credit limit</b></p>	<p><b>010*</b>    <b>FOODS FOR FITNESS</b>    <b>.5-1 UNIT</b></p> <p>Prerequisite: None Corequisite: None Recommended Preparation: None 1.5 - 3 hours laboratory</p> <p>Fitness Center course designed to teach nutrition guidelines and provide opportunities for students to analyze their eating habits. Format is open-entry/exit, computer log-in. Attendance of 24 class periods is required for .5 unit. Attendance of 48 class periods is required for 1.0 unit. Workouts and consultation with an instructor, as well as written and computer assignments. Each student will be assessed in the areas of fitness and diet and an individualized diet analysis will be provided. <b>Credit/No Credit only.</b> <b>CSU, UC credit limit</b></p>	<p><b>011*</b>    <b>LIFELONG FITNESS</b>    <b>.5-1 UNIT</b></p> <p>Prerequisite: None Corequisite: None Recommended Preparation: None 1.5- 3 hours laboratory</p> <p>Fitness Center course designed to develop and encourage positive attitudes and habits with regard to cardiovascular efficiency, body composition, muscular strength and endurance, and flexibility. Format is open entry/exit, computer log-in. Attendance of 24 class periods is required for .5 unit. Attendance of 48 class periods is required for 1.0 unit. Each student will be assessed in the areas of body composition, cardiovascular efficiency, muscular strength and endurance, and flexibility. An individual fitness profile will then be established. From this profile an individual fitness prescription will be developed. Fitness activity will primarily utilize exercise equipment organized into an aerobic super circuit with additional activities prescribed in an aerobics machine area, body parts weight training area, and flexibility area. Additional assessment at the conclusion of the semester will provide data necessary to evaluate the accomplishment of stated goals. <b>Credit/No Credit only.</b> <b>CSU, UC credit limit</b></p>	<p><b>012*</b>    <b>APPLIED FITNESS</b>    <b>.5-1 UNIT</b></p> <p>Prerequisite: None Corequisite: None Recommended Preparation: None 1.5 - 3 hours laboratory</p> <p>Fitness Center course designed to provide advanced exercisers with the opportunity to increase their fitness levels by use of a longer and more demanding aerobic circuit. Format is open entry/exit, computer log-in. Attendance of 24 class periods is required for .5 unit. Attendance of 48 class periods is required for 1.0 unit. Each student will be assessed in the areas of body composition, cardiovascular efficiency, muscular strength and endurance, and flexibility. An individualized fitness program will then be prescribed utilizing goals established jointly by the student and instructor. <b>Credit/No Credit only.</b> <b>CSU, UC credit limit</b></p>	<p><b>013*</b>    <b>FLEXIBILITY FITNESS</b>    <b>1.5 UNITS</b></p> <p>Prerequisite: None Corequisite: None Recommended Preparation: None 3 hours lecture/laboratory</p> <p>Flexibility program which provides students with knowledge of their optimal range of motion. Emphasizes participation that suits the needs of all age and ability levels including dancers, athletes, seniors and fitness enthusiasts. <b>CSU, UC credit limit</b></p>	<p><b>014A*</b>    <b>BEGINNING BODY BUILDING</b>                                <b>1.5 UNITS</b></p> <p>Prerequisite: None Corequisite: None Recommended Preparation: None 3 hours lecture/laboratory</p> <p>Instruction and practice in conditioning, running and resistance exercises, with emphasis on total fitness of the individual. <b>CSU, UC credit limit</b></p>
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- 014B\* INTERMEDIATE BODY BUILDING 1.5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: ES 014A  
 3 hours lecture/laboratory  
 Instruction and practice in weight lifting and weight training with emphasis on techniques of lifting. Individual program adaptation is stressed.  
**CSU, UC credit limit**
- 014C\* ADVANCED BODY BUILDING 1.5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: ES 014B  
 3 hours lecture/laboratory  
 Advanced skills and techniques of body building.  
**CSU, UC credit limit**
- 015\* STRENGTH AND STRETCH 1.5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture/laboratory  
 Exercise class for all exercisers providing a progression toward increased flexibility while adding the element of weight training, including injury rehabilitation with a guest trainer. Addresses strengthening specific problem areas of muscle weakness. Students will tone areas not strengthened with dancing or other exercise activities. By focusing on each specific area of the body, students will increase their knowledge of injury prevention. Students will also learn the fundamental principles of physical fitness and its impact on lifelong health and wellness. Emphasizes participation that suits the needs of all age and ability levels including dancers, athletes, seniors and fitness enthusiasts.  
**CSU, UC credit limit**
- 018\* CARDIO STRETCH 1.5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture/laboratory  
 Exercise class for all exercisers, including injury rehabilitation with a guest trainer. Students will tone areas not strengthened with dancing or other exercise activities. By focusing on each specific area of the body, students will increase their knowledge of total fitness. Students will learn the fundamental principles of physical fitness and its impact on lifelong health and wellness. Emphasizes participation that suits the needs of all age and ability levels including dancers, athletes, seniors and fitness enthusiasts.  
**CSU, UC credit limit**
- 019A\* BEGINNING PHYSICAL FITNESS 1.5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture/laboratory  
 Instruction in physical conditioning, nutrition and weight control. Open to any student wishing to fulfill one semester of the exercise science activity requirement.  
**CSU, UC credit limit**
- 019B\* INTERMEDIATE PHYSICAL FITNESS 1.5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: ES 019A  
 3 hours lecture/laboratory  
 Further emphasis on individual physical conditioning, nutrition and weight control. Open to any student wishing to fulfill one semester of the exercise science activity requirement.  
**CSU, UC credit limit**
- 019C\* ADVANCED PHYSICAL FITNESS 1.5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: ES 019B  
 3 hours lecture/laboratory  
 Advanced skills and techniques of physical fitness. Emphasis on new concepts and techniques. Open to any student wishing to fulfill one semester of the exercise science activity requirement.  
**CSU, UC credit limit**
- 020\* ADAPTED WEIGHT TRAINING 1-1.5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2-3 hours lecture/laboratory  
 Weight training class designed to meet the needs of those students who are either temporarily or permanently physically unable to participate in the regular physical education program. Emphasis on an individual program based on the student's limitations and needs. Exercises for general strengthening, body maintenance, relaxation, joint mobility, cardiovascular training, coordination, balance and personal health care planning may be included. **Credit/No Credit only.**  
**CSU, UC credit limit**
- 035 ABC ADAPTED SWIMMING FOR THE PHYSICALLY LIMITED 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture/laboratory  
 Instruction and practice in basic swimming skills structured to fit each student's individual needs.  
**Credit/No Credit only.**  
**CSU, UC credit limit**
- 060A\* BEGINNING BADMINTON 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture/laboratory  
 Presentation of the official singles and doubles games including the six basic strokes, footwork, strategy and etiquette.  
**CSU, UC credit limit**
- 060B\* INTERMEDIATE BADMINTON 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: ES 060A  
 2 hours lecture/laboratory  
 Continuation of ES 060A with emphasis on playing strategy and match play in singles and doubles.  
**CSU, UC credit limit**

<p><b>060C*</b> <b>ADVANCED BADMINTON</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 060B  2 hours lecture/laboratory  Advanced playing techniques, strategy, knowledge and attitudes for students who wish to excel in badminton and increase aerobic capacity.  <b>CSU, UC credit limit</b></p>	<p><b>076A*</b> <b>BEGINNING TENNIS</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: None  2 hours lecture/laboratory  Presentation of the official singles and doubles games including basic strokes, rules, strategy and etiquette.  <b>CSU, UC credit limit</b></p>	<p><b>076B*</b> <b>INTERMEDIATE TENNIS</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 076A  2 hours lecture/laboratory  Continuation of ES 076A with emphasis on individual stroke analysis, playing strategy and match play, singles and doubles.  <b>CSU, UC credit limit</b></p>	<p><b>076C*</b> <b>ADVANCED TENNIS</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 076B  2 hours lecture/laboratory  Continuation of ES 076B with emphasis on advanced techniques, strategy and match play for singles, doubles and mixed doubles.  <b>CSU, UC credit limit</b></p>	<p><b>080A*</b> <b>MODERN DANCE I</b> <b>1.5 UNITS</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: None  3 hours lecture/laboratory  Dance as an artistic expression. Beginning modern dance technique using an eclectic approach. Movement fundamentals including torso, legs and other parts of the body. Floor exercises, fall and recovery sequences, locomotion progressing from basic to variations. Short dance sequences using pure movement. Basic knowledge of the history of modern dance and its place in the world of dance. Beginning vocabulary of modern dance.  <b>CSU, UC</b></p>	<p><b>080B*</b> <b>MODERN DANCE II</b> <b>1.5 UNITS</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 080A  3 hours lecture/laboratory  Continuation of ES 080A. Modern dance technique using an eclectic approach. Center exercises of the torso using various movement qualities: stretches, contractions and releases; movements of the feet, legs and combinations; floor exercises; fall and recoveries; locomotor movement patterns. Dances using various themes. Review of the history of modern dance. The leading exponents of modern dance in the United States.  <b>CSU, UC</b></p>	<p><b>080C*</b> <b>MODERN DANCE III</b> <b>1.5 UNITS</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 080B  3 hours lecture/laboratory  Dance as an art form. More advanced dance skills using the torso in combination with stretches, swings, contractions and releases. Longer combinations at center involving the feet and legs. Floor and recovery sequences combined with floor work and balances. Movement patterns based on spacial design and rhythms. Dances based on different ideas and set to music. Knowledge of the work of leading modern dance companies, choreographers and dancers, locally and nationally.  <b>CSU, UC</b></p>	<p><b>080D*</b> <b>MODERN DANCE IV</b> <b>1.5 UNITS</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 080C  3 hours lecture/laboratory  Dance as an art form. Advanced dance skills using the theories of Doris Humphrey, Jose Limon, Martha Graham and others well-known in the modern dance field. Dance technique using an eclectic approach. Choreographed dances based on set themes and using different forms of accompaniment. Knowledge of the work of leading modern dance companies and their choreographers.  <b>CSU, UC</b></p>	<p><b>084A*</b> <b>JAZZ DANCE I</b> <b>1.5 UNITS</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: None  3 hours lecture/laboratory  Designed to introduce and develop movement principles and skills necessary to prepare the body as an instrument of expression in the jazz dance style with both historical and current dance trends. Emphasizes enjoyment of dance as a form of exercise. Instruction at the beginning level.  <b>CSU, UC</b></p>	<p><b>084B*</b> <b>JAZZ DANCE II</b> <b>1.5 UNITS</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 084A  3 hours lecture/laboratory  Designed to introduce and develop movement principles and skills necessary to prepare the body as an instrument of expression in the jazz dance style with both historical and current dance trends. Emphasizes enjoyment of dance as a form of exercise. Instruction at the intermediate level.  <b>CSU, UC</b></p>	<p><b>084C*</b> <b>JAZZ DANCE III</b> <b>1.5 UNITS</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 084B  3 hours lecture/laboratory  Designed to introduce and develop movement principles and skills necessary to prepare the body as an instrument of expression in the jazz dance style with both historical and current dance trends. Emphasizes enjoyment of dance as a form of exercise. Instruction at the intermediate/advanced level.  <b>CSU, UC</b></p>
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<p><b>084D*</b> <b>JAZZ DANCE IV</b> <span style="float: right;"><b>1.5 UNITS</b></span>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 084C  3 hours lecture/laboratory  Designed to introduce and develop movement principles and skills necessary to prepare the body as an instrument of expression in the jazz dance style with both historical and current dance trends. Emphasizes enjoyment of dance as a form of exercise. Instruction at the advanced level.  <b>CSU, UC</b></p>	<p><b>125A*</b> <b>BEGINNING GOLF</b> <span style="float: right;"><b>1 UNIT</b></span>  Prerequisite: None  Corequisite: None  Recommended Preparation: None  2 hours lecture/laboratory  Instruction and practice in basic golf skills. Instruction in course conduct, rules and self-evaluation of skills is emphasized. Practice limited to development of swing, stance and grip.  <b>CSU, UC credit limit</b></p>
<p><b>088A*</b> <b>BALLET I</b> <span style="float: right;"><b>1.5 UNITS</b></span>  Prerequisite: None  Corequisite: None  Recommended Preparation: None  3 hours lecture/laboratory  Designed to introduce and develop movement principles and skills necessary for the study of classical ballet. Includes ballet terminology, use of "turnout" position of feet and legs, alignment of spine, and placement of weight at the barre, in center floor and traveling patterns. Emphasizes enjoyment of dance as a form of exercise. Instruction at the beginning level.  <b>CSU, UC</b></p>	<p><b>125B*</b> <b>INTERMEDIATE GOLF</b> <span style="float: right;"><b>1 UNIT</b></span>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 125A  2 hours lecture/laboratory  Instruction and practice in golf requiring skills to play small executive course. Students must furnish their own equipment.  <b>CSU, UC credit limit</b></p>
<p><b>088B*</b> <b>BALLET II</b> <span style="float: right;"><b>1.5 UNITS</b></span>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 088A  3 hours lecture/laboratory  Designed to introduce and develop movement principles and skills necessary for the study of classical ballet. Includes ballet terminology, use of "turnout" position of feet and legs, alignment of spine, and placement of weight at the barre, in center floor and traveling patterns. Emphasizes enjoyment of dance as a form of exercise. Instruction at the intermediate level.  <b>CSU, UC</b></p>	<p><b>125C*</b> <b>ADVANCED GOLF</b> <span style="float: right;"><b>1 UNIT</b></span>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 125B  2 hours lecture/laboratory  Continuation of ES 125B with emphasis on advanced techniques, strategies and tournament play in the game of golf. Students must furnish their own equipment.  <b>CSU, UC credit limit</b></p>
<p><b>088C*</b> <b>BALLET III</b> <span style="float: right;"><b>1.5 UNITS</b></span>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 088B  3 hours lecture/laboratory  Designed to introduce and develop movement principles and skills necessary for the study of classical ballet. Includes ballet terminology, use of "turnout" position of feet and legs, alignment of spine, and placement of weight at the barre, in center floor and traveling patterns. Emphasizes enjoyment of dance as a form of exercise. Instruction at the intermediate/advanced level.  <b>CSU, UC</b></p>	<p><b>150*</b> <b>ADAPTED SPORTS EDUCATION</b> <span style="float: right;"><b>1 UNIT</b></span>  Prerequisite: None  Corequisite: None  Recommended Preparation: None  2 hours lecture/laboratory  For physically challenged individuals in various sports and physical activities including track and field, basketball, football, weight training and golf. Students will also learn the fundamental principles of physical fitness and its impact on lifelong health and wellness.  <b>CSU, UC credit limit</b></p>
<p><b>088D*</b> <b>BALLET IV</b> <span style="float: right;"><b>1.5 UNITS</b></span>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 088C  3 hours lecture/laboratory  Designed to introduce and develop movement principles and skills necessary for the study of classical ballet. Includes ballet terminology, use of "turnout" position of feet and legs, alignment of spine, and placement of weight at the barre, in center floor and traveling patterns. Emphasizes enjoyment of dance as a form of exercise. Instruction at the advanced level.  <b>CSU, UC</b></p>	<p><b>155A*</b> <b>BEGINNING BASKETBALL</b> <span style="float: right;"><b>1 UNIT</b></span>  Prerequisite: None  Corequisite: None  Recommended Preparation: None  2 hours lecture/laboratory  Instruction and practice in the basic skills of basketball with emphasis on individual skill development and team play. Students will also learn the fundamental principles of physical fitness and its impact on lifelong health and wellness.  <b>CSU, UC credit limit</b></p>
	<p><b>155B*</b> <b>INTERMEDIATE BASKETBALL</b> <span style="float: right;"><b>1 UNIT</b></span>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 155A  2 hours lecture/laboratory  Continuation of ES 155A with emphasis on intermediate level individual skill development, team play, defensive/offensive tactics and team strategies. Students will also learn the fundamental principles of physical fitness and its impact on lifelong health and wellness.  <b>CSU, UC credit limit</b></p>

<p><b>155C* ADVANCED BASKETBALL</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 155B  2 hours lecture/laboratory  Continuation of ES 155B with emphasis on advanced level individual skill development, team play, defensive/offensive tactics and team strategies. Students will also learn the fundamental principles of physical fitness and its impact on lifelong health and wellness.  <b>CSU, UC credit limit</b></p>	<p><b>171C* ADVANCED SOFTBALL</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 171B  2 hours lecture/laboratory  Designed to acquaint students with the basic fundamentals of the game of softball. For individuals of all ages and fitness levels. Lifelong health and vigor through exercise and activities will be emphasized. Enjoyment of the game of softball, physical activity, safety and injury prevention will be promoted. Individual position skill will also be emphasized, as well as offense and defense strategies.  <b>CSU, UC credit limit</b></p>
<p><b>170A* BEGINNING SOCCER</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: None  2 hours lecture/laboratory  Basic skills and strategy of soccer with emphasis on team play and individual skills.  <b>CSU, UC credit limit</b></p>	<p><b>175A* BEGINNING VOLLEYBALL</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: None  2 hours lecture/laboratory  Competency development in the team sport of volleyball. Emphasizes individual techniques and team strategy.  <b>CSU, UC credit limit</b></p>
<p><b>170B* INTERMEDIATE SOCCER</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 170A  2 hours lecture/laboratory  Intermediate soccer skills and team play. Emphasizes techniques, team strategy, language and lore of the game of soccer.  <b>CSU, UC credit limit</b></p>	<p><b>175B* INTERMEDIATE VOLLEYBALL</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 175A  2 hours lecture/laboratory  Continuation of ES 175A with emphasis on advanced play and strategy and four-person teams.  <b>CSU, UC credit limit</b></p>
<p><b>170C* ADVANCED SOCCER</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 170B  2 hours lecture/laboratory  Emphasis on advanced individual soccer skills and team play.  <b>CSU, UC credit limit</b></p>	<p><b>175C* ADVANCED VOLLEYBALL</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 175B  2 hours lecture/laboratory  Continuation of ES 175B with emphasis on advanced play and strategy and four-person teams.  <b>CSU, UC credit limit</b></p>
<p><b>171A* BEGINNING SOFTBALL</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: None  2 hours lecture/laboratory  Designed to acquaint students with the basic fundamentals of the game of softball. For individuals of all ages and fitness levels. Lifelong health and vigor through exercise and activities will be emphasized. Enjoyment of the game of softball, physical activity, safety and injury prevention will be promoted. Individual position skill will also be emphasized, as well as offense and defense strategies.  <b>CSU, UC credit limit</b></p>	<p><b>180* SELF DEFENSE FOR WOMEN</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: None  1 hour lecture, 1 hour laboratory  Basic principles of practical personal protection for women, with emphasis on awareness and prevention of situations that may leave a person vulnerable to crime, especially rape. Physical, mental and verbal responses will be taught and practiced so students may develop the confidence to stand up and defend themselves, if needed. Students will also learn the fundamental principles of physical fitness and their impact on lifelong health and wellness. <i>Not open to students with credit in ES 195.</i>  <b>CSU, UC credit limit</b></p>
<p><b>171B* INTERMEDIATE SOFTBALL</b> <b>1 UNIT</b>  Prerequisite: None  Corequisite: None  Recommended Preparation: ES 171A  2 hours lecture/laboratory  Designed to acquaint students with the basic fundamentals of the game of softball. For individuals of all ages and fitness levels. Lifelong health and vigor through exercise and activities will be emphasized. Enjoyment of the game of softball, physical activity, safety and injury prevention will be promoted. Individual position skill will also be emphasized, as well as offense and defense strategies.  <b>CSU, UC credit limit</b></p>	

- 199 SPECIAL STUDIES OR PROJECTS IN EXERCISE SCIENCE 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Exercise Science under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 200\* CONDITIONING AND INJURY PREVENTION FOR ATHLETICS 1.5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture/laboratory  
 Emphasis on physical conditioning and mastery of the basic fundamentals of movement and skills necessary to reduce the risk of injury associated with athletic activity. Conditioning activities, running games and resistance exercises will be emphasized.  
**CSU, UC credit limit**
- 206 INTERCOLLEGIATE BASKETBALL 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 10 hours lecture/laboratory  
 Intercollegiate competition in the sport of basketball. Instruction in specific skills, performance techniques and strategies, as well as daily practice, development of physical fitness, team travel and competition against other collegiate institutions. Open to all students who wish to compete at the intercollegiate level.  
**CSU, UC credit limit**
- 207 ADVANCED TECHNIQUES AND STRATEGIES OF BASKETBALL 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture/laboratory  
 Instruction and practice in advanced techniques and strategies of basketball. Incorporates game experience to formulate an understanding of the different styles of play.  
**CSU, UC credit limit**
- 209 INTERCOLLEGIATE CROSS-COUNTRY 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 10 hours lecture/laboratory  
 Open to students with advanced cross-country skills who wish to compete at the intercollegiate level.  
**CSU, UC credit limit**
- 213 INTERCOLLEGIATE GOLF 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 10 hours lecture/laboratory  
 Instruction in team play and strategy. Competition in practice and league play.  
**CSU, UC credit limit**
- 218 INTERCOLLEGIATE SOCCER 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 10 hours lecture/laboratory  
 Open to students with advanced soccer skills who wish to compete at the intercollegiate level.  
**CSU, UC credit limit**
- 219 ADVANCED TECHNIQUES AND STRATEGIES OF SOCCER 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture/laboratory  
 Designed for students with advanced soccer skills. Instruction and practice in the advanced techniques and strategies of soccer. Incorporates game experience to formulate an understanding of the different styles of play.  
**CSU, UC credit limit**
- 224 INTERCOLLEGIATE TENNIS 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 10 hours lecture/laboratory  
 Intercollegiate competition in the sport of tennis. Instruction in specific skills, performance techniques and strategies, as well as daily practice, development of physical fitness, team travel and competition against other collegiate institutions. Open to all students who wish to compete at the intercollegiate level.  
**CSU, UC credit limit**
- 225 ADVANCED TECHNIQUES AND STRATEGIES OF TENNIS 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture/laboratory  
 Designed for advanced tennis players who are proficient in the fundamental skills and have knowledge of the basic rules of the game. Instruction is geared toward advanced techniques, strategies and team play.  
**CSU, UC credit limit**
- 227 INTERCOLLEGIATE TRACK 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 10 hours lecture/laboratory  
 Emphasis on advanced track skills for those who wish to compete at the intercollegiate level.  
**CSU, UC credit limit**
- 230 INTERCOLLEGIATE VOLLEYBALL 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 10 hours lecture/laboratory  
 Intercollegiate competition in the sport of volleyball. Instruction in specific skills, performance techniques and strategies, as well as daily practice, development of physical fitness, team travel and competition against other collegiate institutions. Open to all students who wish to compete at the intercollegiate level.  
**CSU, UC credit limit**

- 231 ADVANCED TECHNIQUES AND STRATEGIES OF VOLLEYBALL 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture/laboratory  
 Designed for advanced volleyball players who are proficient in the fundamental skills and have knowledge of the basic rules of the game. Instruction is geared toward advanced techniques, strategies and team play.  
**CSU, UC credit limit**
- 250 INTRODUCTION TO PHYSICAL EDUCATION 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture  
 History, philosophy and principles of physical education and exercise science. Study of the aims and objectives of modern physical education with emphasis on the development of basic philosophy and background for professional education.  
**CSU, UC**
- 253 PHYSICAL EDUCATION IN ELEMENTARY SCHOOLS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2.5 hours lecture, 1.5 hours laboratory  
 The statewide program in physical education for elementary schools forms the basis for this course. Includes the study of child development, personality development, analysis and practice of fundamental skills, selection of activities, organizational materials and evaluation of teaching ability.  
**CSU**
- 254 PRINCIPLES OF PERSONAL TRAINING 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Identification and study of the techniques, responsibilities and skills necessary to perform the duties of a personal trainer. Emphasizes current knowledge of health principles as it pertains to fitness and wellness. Provides the necessary information to pass the Personal Trainer Certification Exams for national certifying organizations (ACE, NSCA, etc.). Hands-on lab training in the use of fitness equipment.  
**CSU**
- 254L FIELD EXPERIENCE FOR PERSONAL TRAINERS 1 UNIT**  
 Prerequisite: ES 254 with a grade of "C" or better or "CR"  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours unpaid work experience per week  
 This course will provide volunteer work experience in the field of personal training in selected fitness facilities. The student will work under the direct supervision of a certified Exercise Science instructor or commercially certified personal trainer.  
**CSU**
- 255 CARE AND PREVENTION OF ATHLETIC INJURIES 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 1 hour laboratory  
 Designed to (1) provide a background for individuals interested in an athletic training career, (2) develop an understanding of athletic injuries in terms of prevention, recognition, evaluation, treatment, first aid and emergency care for coaches and/or teachers in athletic settings, and (3) provide athletes with an understanding of how to manage their own injuries and methods of prevention.  
**CSU, UC credit limit**
- 270 COOPERATIVE GAMES 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture  
 This course will focus on planning and implementing cooperative games for physical education/activities involving pre-school and elementary school-aged children in a variety of settings. The philosophy behind the need for cooperative games will be explored, as well as the importance of incorporating movement into daily life.  
**CSU, UC credit limit**
- 271 FITNESS WALKING WITH CHILDREN 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture  
 This course will focus on planning and implementing a walking program for children in a variety of settings. Lifelong fitness activities and walking as a form of appropriate and challenging exercise will be emphasized.  
**CSU**
- 272 ISSUES IN CHILDHOOD OBESITY 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture  
 This course will provide an opportunity for review of current knowledge relating to the cause and prevention of childhood obesity. Content will include suggested physical activity planning and nutrition guidelines, as well as historically relevant trends in regards to childhood obesity, diet and physical activity.  
**CSU**
- 273 FIELD EXPERIENCE IN SCHOOL-BASED RECREATIONAL LEADERSHIP 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours paid or 4 hours unpaid work experience per week  
 Under supervision at approved field placement sites, students will participate in all outdoor recreational activities. Students will develop and supervise fitness and recreational experiences, conduct group activities, handle routines, and respond to individual and group needs of school-aged children in a school-based, day care or school day environment.  
**CSU**

**298 SELECTED TOPICS IN EXERCISE SCIENCE** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Exercise Science not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN EXERCISE SCIENCE** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Exercise Science not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## FRENCH

- 120 FRENCH I** **5 UNITS**  
**(CAN FREN 2; CAN FREN SEQ A = FREN 120+121)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture  
 Introductory course to the French language and the cultures of its speakers. Designed for students with very little or no knowledge of French. Facilitates the practical application of the language in everyday oral and written communication at the beginning level. Since the focus will be on basic communication skills, the class will be conducted in French as much as possible. Students will learn structures that will enable them to function in French in everyday contexts while becoming familiar with the French speaking world.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 121 FRENCH II** **5 UNITS**  
**(CAN FREN 4; CAN FREN SEQ A = FREN 120+121)**  
 Prerequisite: FREN 120 with a grade of "C" or better or "CR" or two years of high school French or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture  
 Continuation of FREN 120. The course will continue to develop oral and written skills based on practical everyday needs.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 199 SPECIAL STUDIES OR PROJECTS IN FRENCH** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in French under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 220 FRENCH III** **5 UNITS**  
**(CAN FREN 8; CAN FREN SEQ B = FREN 220+221)**  
 Prerequisite: FREN 121 with a grade of "C" or better or "CR" or three years of high school French or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture  
 Continuation of FREN 121. The course will continue to develop oral, listening, reading and writing skills in order to improve proficiency in French.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 221 FRENCH IV** **5 UNITS**  
**(CAN FREN 10; CAN FREN SEQ B = FREN 220+221)**  
 Prerequisite: FREN 220 with a grade of "C" or better or "CR" or four years of high school French or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture  
 Continuation of FREN 220. The course will continue to develop oral, listening, reading and writing skills in order to improve proficiency in French.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

**250 CONVERSATIONAL FRENCH 3 UNITS**

Prerequisite: FREN 121 or four years of high school French or equivalent

Corequisite: None

Recommended Preparation: None

3 hours lecture

Continues to develop oral, reading, writing and listening skills with emphasis on oral proficiency.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**251 CONVERSATIONAL FRENCH 3 UNITS**

Prerequisite: FREN 250 or 121 or four years of high school French or equivalent

Corequisite: None

Recommended Preparation: None

3 hours lecture

Continues to develop oral, reading, writing and listening skills with emphasis on oral proficiency.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**298 SELECTED TOPICS IN FRENCH 1-5 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-15 hours

Selected topics in French not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN FRENCH 1-5 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-15 hours

Selected topics in French not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

**GEOGRAPHY****106 WORLD REGIONAL GEOGRAPHY 3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

World regional geography studies the overarching principles of human geography as applied to the major geographic regions of the world including Africa, the Middle East, South and East Asia, Australia, Europe and the Americas. Regional analysis will include: language, religion and ethnicity; population, land use and settlement patterns; economic, social and political systems; urban and environmental relationships; and the effects of technology and globalization in a rapidly changing world.

**AA/AS GE, CSU, CSU GE, UC**

**120 ELEMENTS OF PHYSICAL GEOGRAPHY 3 UNITS**

**(CAN GEOG 2)**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Physical geography is the study of the patterns and processes that underlie the fundamental nature and dynamics of the physical world. Topics will be investigated from a systems perspective, with particular attention to the spatial relationships among the atmosphere, hydrosphere, lithosphere and biosphere. Global, regional and local environmental concerns will be discussed as relevant to course topics.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**121 PHYSICAL GEOGRAPHY LABORATORY 1 UNIT**

Prerequisite: GEOG 120 or concurrent enrollment

Corequisite: None

Recommended Preparation: None

3 hours laboratory

Augments the physical geography lecture course through practical applications of materials covered in GEOG 120. Laboratory exercises include practical applications of the following: map analysis and interpretation; Earth-Sun relations; weather and climate; basic rock and mineral identification; plate tectonics; erosional and depositional environments; landform identification and genesis; soil and vegetation distributions. Special attention given to the unique local setting of San Diego County. Field experience incorporated into laboratory exercises on a regular basis.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

- 122 REGIONAL FIELD STUDIES IN PHYSICAL GEOGRAPHY 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: GEOG 120 or concurrent enrollment  
 1 hour lecture, 1 hour laboratory  
 Designed to provide focused experience in geographical field studies of a selected region in western North America. Emphasizes observation and interpretation of physical geography phenomena through direct experience in a field setting. Requires a multi-day field trip as well as on-campus meetings prior to and immediately following the field trip. Students must supply their own camping gear including food, cooking gear, stove, eating utensils, sleeping bag and tent. *May be repeated with different content for a maximum of 4 units.*  
**CSU**
- 130 HUMAN AND CULTURAL GEOGRAPHY (CAN GEOG 4) 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introduction to the study of the dynamics and complex relationships between the Earth's people and the ever-changing world in which they live. Special attention given to the historical role of the human-environment relationship, as well as the influences of language, religion, and other cultural factors in shaping the world's many cultures. Topics investigated on a global, regional and local scale include: origin and diffusion of the world's major languages and religions; population and settlement patterns; political and economic systems; methods of livelihood; the role of technology in our rapidly changing world. Emphasis on human-environment relations and understanding and appreciation of our diverse multicultural world. Local field trips link course materials to real-world phenomena.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 199 SPECIAL STUDIES OR PROJECTS IN GEOGRAPHY 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Geography under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 298 SELECTED TOPICS IN GEOGRAPHY 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Geography not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

- 299 SELECTED TOPICS IN GEOGRAPHY 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Geography not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## GEOLOGY

- 104 EARTH SCIENCE 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 This physical science course studies the patterns and processes that define Earth's major physical systems, the basic energy and material flows by which these systems operate, and the comparative place of our planet within the larger solar system. Topics will be investigated at global, regional and local scales and will provide a general synthesis of the disciplines of astronomy, geology, physical geography, meteorology and oceanography. Environmental disturbance and climate change will be addressed within the context of the topics described above.  
**AA/AS GE, CSU, CSU GE**
- 110 GENERAL GEOLOGY 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introduction to the fundamental nature of the physical Earth and its interior. Special attention given to the role of plate tectonics in shaping the Earth's surface. Topics investigated on a global, regional and local scale include: Earth's internal and external structure; rock and mineral composition and identification; geologic time; plate tectonics; volcanism and earthquakes; weathering, erosion and mass wasting; mineral and energy resources. Local field trips link course materials to real-world phenomena.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 199 SPECIAL STUDIES OR PROJECTS IN GEOLOGY 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Geology under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**298 SELECTED TOPICS IN GEOLOGY 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Geology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN GEOLOGY 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Geology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

## GRAPHIC DESIGN

**105 FUNDAMENTALS OF DIGITAL MEDIA 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: Basic computer skills (can be learned in introductory CIS or BOT classes)  
 2 hours lecture, 4 hours laboratory

This course explores the digital hardware and software used in graphic design with an emphasis on print graphics production skills. Students will learn how to operate the computer and use software applications common in graphic design (Adobe Illustrator, Photoshop, InDesign and Quark Xpress). Design principles will be introduced as students explore the creative potential and practical aspects of graphic design with realistic project assignments.

**CSU**

**110 BEGINNING GRAPHIC DESIGN 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: ART 120, 124, GD 105  
 2 hours lecture, 4 hours laboratory

This course explores the fundamental concepts of graphic design and visual communication. The basic concepts, principles and elements of design are reinforced through creative problem solving. Text and visual elements such as photos and illustrations are integrated to create appropriate and aesthetic solutions to print graphics problems. Students will investigate career options and begin portfolio development.

**CSU**

**125 TYPOGRAPHY 3 UNITS**

Prerequisite: GD 105, ART 120 with a grade of "C" or better  
 Corequisite: None  
 Recommended Preparation: GD 110  
 2 hours lecture, 4 hours laboratory

Explores the fundamental nature of typography as a reflection of society. Letters and numbers are examined as art forms and as carriers of language and ideas. Technical aspects of typography will be considered including function and production. Design letter forms using both traditional and digital processes with an emphasis on developing a professional portfolio.

**CSU**

**126 PHOTOSHOP DIGITAL IMAGING 3 UNITS**

**ABCD** Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: Basic computer skills (creating, editing, copying, deleting and organizing files)  
 2 hours lecture, 4 hours laboratory

This course explores capturing, digitizing and editing images. Students will learn to use scanners and digital cameras to capture or digitize images and Adobe Photoshop to edit, manipulate, retouch, enhance and composite digital images. The class will explore digital workflows, color management, monitor calibration, and output methods used to achieve the best possible output from digital files. Emphasis will be on meeting aesthetic and technical requirements of the commercial arts industry.

**CSU**

**129 PAGE LAYOUT 3 UNITS**

Prerequisite: GD 105, 110 with a grade of "C" or better  
 Corequisite: None  
 Recommended Preparation: GD 125  
 2 hours lecture, 4 hours laboratory

Emphasizes the aesthetic and functional organization of text, charts, graphs, line art, illustrations and photos in multiple page documents. Use traditional and digital processes to develop creative thumbnails, roughs and comprehensive layouts. Emphasis on preparing text and images for electronic pre-press and for selecting printing options. Students will develop work for a professional portfolio.

**CSU**

**130 PROFESSIONAL BUSINESS PRACTICES 3 UNITS**

Prerequisite: GD 129 with a grade of "C" or better  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory

Emphasizes professional business practices used in the graphic design industry including design studios, agencies and self-employment. Learn how to create a resume, market a portfolio, acquire clients and set fees. Students will refine their design capabilities using text and images, while learning how to perform as business professionals. **Students must pass the Department Portfolio Review to receive credit for this class.**

**CSU**

**198 SUPERVISED TUTORING 0 UNIT**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 TBA hours

Uses a variety of educational tools to assist students with various learning needs. Can be used to strengthen prerequisite skills prior to enrolling in a specific course or to receive supplemental assistance while concurrently enrolled in another course. *May be repeated with different content.* **No fee/no credit course.**

- 199 SPECIAL STUDIES OR PROJECTS IN GRAPHIC DESIGN** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Graphic Design under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 210 PRACTICAL DIGITAL PHOTOGRAPHY** **2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: Basic computer skills (creating, editing, copying, deleting and organizing files)  
 1.5 hours lecture, 1.5 hours laboratory  
 This practical course is intended for anyone interested in traditional photographic methods as they apply to digital photography. Students will learn to properly light, compose, expose, adjust, manipulate and print digital photographs. Lectures and demonstrations will explore advanced camera settings and file editing with Adobe Photoshop. Assignments will emphasize skills needed to produce high quality images for print and web display.  
**CSU**
- 211 COMMERCIAL DIGITAL PHOTOGRAPHY** **3 UNITS**  
 Prerequisite: GD 126ABCD, 210  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 4 hours laboratory  
 This course emphasizes advanced photographic and digital imaging techniques, expanding on knowledge and skills acquired in GD 210 (Practical Digital Photography) and GD 126 (Photoshop Digital Imaging). Lectures, demonstrations and assignments will focus on various applications of commercial photography including portraiture, tabletop, still life and photo-illustration. Unlike most fine art oriented photography classes, this course will present aesthetic and technical aspects of photography as they pertain to graphic communication and commercial art.  
**CSU**
- 217 WEB GRAPHICS** **3 UNITS**  
*(formerly CIS 217)*  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 212 or basic computer and Internet skills and ability to create and upload a simple website; GD 126ABCD or ability to use Adobe Photoshop to create digital images  
 2 hours lecture, 3 hours laboratory  
 This course focuses on the creation of attractive, usable web interfaces and graphic elements. Students will use Photoshop to design and develop common web design elements as they explore information design, screen design and navigation design.  
**CSU**
- 222 FLASH WEB ANIMATION** **3 UNITS**  
*(formerly CIS 222)*  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: CIS 212 or basic computer and Internet skills and ability to create and upload a simple website  
 2 hours lecture, 3 hours laboratory  
 Covers design, development and implementation of web-based animation using Macromedia Flash. Students will create common web animation projects such as advertisements and web interfaces.  
**CSU**
- 225 DIGITAL ILLUSTRATION** **3 UNITS**  
**ABCD** Prerequisite: GD 105 with a grade of "C" or better  
 Corequisite: None  
 Recommended Preparation: ART 124, 230  
 2 hours lecture, 4 hours laboratory  
 Uses vector and paint software to create drawings and paintings using line, texture, value and color. Applies aesthetics and computer technology to making exciting and aesthetic graphic images. Applicable for both fine art and graphic design.  
**CSU**
- 230 GRAPHIC DESIGN INTERNSHIP** **1-4 UNITS**  
 Prerequisite: GD 129 with a grade of "C" or better  
 Corequisite: None  
 Recommended Preparation: None  
 75 hours paid or 60 hours unpaid work experience per unit  
 Provides field experience in design, business procedures, client relationships, and supervision of work executed for practicing professionals and design-related firms. Student is responsible for finding an employer. Assessment of student to be performed by instructor based on recommendations of supervisor at place of employment. Work experience must be started and completed during the semester that units are earned. **Credit/No Credit only.**
- 298 SELECTED TOPICS IN GRAPHIC DESIGN** **1-4 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours  
 Selected topics in Graphic Design not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN GRAPHIC DESIGN** **1-4 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours  
 Selected topics in Graphic Design not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## HEALTH EDUCATION

- 120 PERSONAL HEALTH AND LIFESTYLES** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Identification and study of the major health problems in today's society. Emphasizes individual responsibility for personal health and the promotion of informed, positive health behaviors. Content areas include nutrition and weight control, substance abuse, environmental hazards, diseases and safety. *Not open to students with credit in HED 110.*  
**AA/AS GE, CSU, CSU GE, UC, UC credit limit**
- 122 ENVIRONMENTAL AND COMMUNITY HEALTH** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introduction to the environmental, biological and socio-cultural determinants of health quality. Areas of emphasis include: environmental health, health and community behavior, infectious disease, chronic disease, methods of public health investigation, health promotion, implementation and regulation. Within these topic areas examination of the matrix of physiological, socio-cultural and psychological determinants of health will be addressed including: health impacts of chemical and physical agents in domestic and work surroundings; water treatment and quality, environmental pollution and occupational health and safety; substance abuse, stress management and mental illness; infectious diseases; growing health trends in the American population such as obesity, diabetes mellitus and Alzheimer's; investigation of health agencies involved, governmental health policies, and their roles in shaping community health.  
**AA/AS GE, CSU, CSU GE, UC, UC credit limit**
- 155 REALITIES OF NUTRITION** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introduction to the basic principles of nutrition and its relationship to good health. Evaluation of current nutritional information (and misinformation) with emphasis on critical thinking to determine optimal dietary choices. Study of the major dietary goals and guidelines. Examination of weight maintenance techniques, eating disorders, food labeling, food safety, and special needs at various stages in the life cycle.  
**CSU, CSU GE, UC**
- 158 NUTRITION FOR ATHLETES** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Investigates the effects of nutrition and various dietary regimens on athletic performance, physical fitness and general health. Students will compare the physiological effects of optimal nutrition vs. inadequate nutrition for the general population as well as athletes. Cultural, sociological and psychological influences will be examined. Discussion of "fads" and dietary supplements will be included.  
**CSU, CSU GE**
- 199 SPECIAL STUDIES OR PROJECTS IN HEALTH EDUCATION** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Health Education under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 251\* HEALTHY LIFESTYLES: THEORY AND APPLICATION** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Combination of physical activity and lecture provides regular exercise to develop physical fitness and information about basic, sound nutrition as it pertains to weight control. Guidelines that promote lifetime exercise and a healthy lifestyle will be emphasized.  
**CSU, CSU GE**
- 298 SELECTED TOPICS IN HEALTH EDUCATION** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Health Education not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN HEALTH EDUCATION** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Health Education not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

\* Meets the activity requirement for graduation.

# HISTORY

## 100 EARLY WORLD HISTORY 3 UNITS (CAN HIST 14)

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

Early world history examines ancient to early modern civilizations and the interconnections between diverse world societies. Included are Mesopotamia, Egypt, China, India, the classical West, the early Islamic world, the civilizations of Africa, and civilizations of the Americas and Oceania.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

## 101 MODERN WORLD HISTORY 3 UNITS (CAN HIST 16)

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

Modern world history explores the background and development of the global society from early modern times to the present. Emphasizes cultural, imperial and industrial interconnections between world societies.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

## 105 EARLY WESTERN CIVILIZATION 3 UNITS (CAN HIST 2; CAN HIST SEQ A = HIST 105+106)

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

Broad survey of the evolution of the West from the Prehistoric Era to the Early Modern Period. Stresses trends and relationships affecting the various aspects of Western Civilization such as politics, economics, society and culture. Particular emphasis on cause and effect in history.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

## 106 MODERN WESTERN CIVILIZATION 3 UNITS (CAN HIST 4; CAN HIST SEQ A = HIST 105+106)

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

History of Western Civilization from early modern times to the present. Continuation of HIST 105, from 1600 to the present.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

## 108\* EARLY AMERICAN HISTORY 3 UNITS (CAN HIST 8; CAN HIST SEQ B = HIST 108+109)

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

A survey of the early political, social and cultural development of the entire geographic area that is now the United States, with emphasis upon the origins of basic American institutions and ideals.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

## 109\* MODERN AMERICAN HISTORY 3 UNITS (CAN HIST 10; CAN HIST SEQ B = HIST 108+109)

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

A survey of the political, social and cultural development of modern United States with emphasis upon the economic, social and technological changes and the rise of the United States as a world power.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

## 114\* COMPARATIVE HISTORY OF THE EARLY AMERICAS 3 UNITS

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

The Americas from ancient times to independence. Emphasis on ancient American civilizations, conquest and interactions among Native, European and African cultures. Colonial institutions and the development of new nations and their political systems.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

## 115\* COMPARATIVE HISTORY OF THE MODERN AMERICAS 3 UNITS

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

A survey of the political, social, economic and cultural development of the modern Americas. Emphasis on interaction among Native, European and African cultures and the social, political and economic transformations of the modern United States, Latin America and Canada.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

## 118\* U.S. HISTORY: CHICANO/CHICANA PERSPECTIVES I 3 UNITS

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

Historical survey of the Chicano people in the United States in which attention is given to social, political and economic background. Particular emphasis on the development of the Spanish-speaking peoples' economic, social and political experience in the United States, especially in the Southwest from the Indo-Hispanic period to the Mexican-American War.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

## 119\* U.S. HISTORY: CHICANO/CHICANA PERSPECTIVES II 3 UNITS

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture

Historical survey of the Chicano people in the United States in which attention is given to social, political and economic background. Particular emphasis on the development of the Spanish-speaking peoples' economic, social and political experience in the United States, especially in the Southwest from the Mexican-American War to the present.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

- 122\* WOMEN IN EARLY AMERICAN HISTORY 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Covers the social, political, cultural, economic and intellectual development of women in America from pre-contact to 1877 in the entire geographic area that is now the United States. Women's experiences are placed in the context of the origins of American institutions and ideals.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 123\* WOMEN IN MODERN AMERICAN HISTORY 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Covers the social, political, cultural, economic and intellectual development of women in America from 1877 to the present in the entire area that is now the United States. Women's experiences are examined in the context of evolving American institutions.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 124 HISTORY OF CALIFORNIA 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Survey of political, social and economic development of the State of California from the earliest Spanish explorations and settlements to the present. Unit of study in California state and local government included.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 130\* U.S. HISTORY AND CULTURES: NATIVE AMERICAN PERSPECTIVES I 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Historical survey of the indigenous people throughout the North American Continent from the earliest recorded knowledge to 1850. Attention given to Indian perspectives of native and non-native cultures. The influence of American Indians on the Federal Constitution and the political philosophies of Early Americans will be studied. Indian political organization and its parallels and differences in Early American political organizations and philosophies are studied. Particular attention given to legislation and its impact on Indian culture and society.  
**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**
- 131 U.S. HISTORY AND CULTURES: NATIVE AMERICAN PERSPECTIVES II 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Historical survey of the indigenous people of the North American continent from 1850 to the present. Attention given to contemporary, historical, political and socio-economic issues affecting the American Indian nationwide, statewide and locally. Indian perspectives of native and non-native cultures will be included. The Federal and State Constitutions are studied with special emphasis on the effects on and influence of Indian culture and society. Particular attention given to political philosophies and the impact of legislation on Indian culture and society.  
**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**
- 180\* U.S. HISTORY: BLACK PERSPECTIVES I 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 United States history with emphasis on social, economic, political and cultural experiences of Black people. The course traces the development of African-American history from African origins through the period of Reconstruction.  
**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**
- 181\* U.S. HISTORY: BLACK PERSPECTIVES II 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Examination of significant aspects of United States history from the aftermath of the Civil War to the present. Emphasis on the socio-economic, political and cultural experience of African-Americans in the United States from Reconstruction to the present.  
**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**
- 199 SPECIAL STUDIES OR PROJECTS IN HISTORY 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in History under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 210 WOMEN IN WESTERN CIVILIZATION 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Social, cultural, economic, political and ideological aspects of women in western society from ancient times to the present.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

- 275 HISTORICAL PERIOD 3 UNITS**  
**276 GEOGRAPHICAL AREA 3 UNITS**  
**277 HISTORICAL THEME 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

In-depth study of an historical period (275), geographical area (276), or historical theme (277). Reading, discussion, lecture and instructional media focused on the forces contributing to the creation of the material studied and on the place of that material in relation to other disciplines in the humanities.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

- 298 SELECTED TOPICS IN HISTORY 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in History not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

- 299 SELECTED TOPICS IN HISTORY 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in History not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

\*Meets part of the American Institutions requirement for 2005-2006. See "CSU General Education Breadth" under Transfer Information and Degree Requirements for complete requirements and different options.

## HUMANITIES

- 110 PRINCIPLES OF THE HUMANITIES 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

In this basic interdisciplinary humanities course, students learn how to examine, compare, analyze, evaluate, interpret and discuss creative works within their cultural contexts. Examples for study will be selected from the world's great works of literature, drama, painting, sculpture, architecture, music, etc.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

- 120 EUROPEAN HUMANITIES 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Integrated approach to European cultural values as expressed in representative masterpieces of literature, philosophy, drama, music, visual art and architecture.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

- 140 AMERICAN HUMANITIES 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Integrated study of American forms of art and thought including popular forms such as film, jazz and popular music. Various periods in American history will be examined from a cultural viewpoint, and selections will be chosen which are most representative of the forms of consciousness during those periods.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

- 155 MYTHOLOGY 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Exploration of myths, legends, folklore and fairy tales as a means of understanding the way different people throughout the world have viewed themselves, their heroes, gods and supernatural beings and the world they live in. Emphasis on the symbolic meaning of the stories covered and the light they shed on our common human nature.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

- 199 SPECIAL STUDIES OR PROJECTS IN HUMANITIES 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours

Individual study, research or projects in Humanities under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

- 298 SELECTED TOPICS IN HUMANITIES 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Humanities not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

- 299 SELECTED TOPICS IN HUMANITIES 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Humanities not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

## INTERDISCIPLINARY STUDIES

### 198 SUPERVISED TUTORING 0 UNIT

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 TBA hours

Uses a variety of educational tools to assist students with various learning needs. Can be used to strengthen prerequisite skills prior to enrolling in a specific course or to receive supplemental assistance while concurrently enrolled in another course. *May be repeated with different content. No fee/no credit course.*

### 199 SPECIAL STUDIES OR PROJECTS IN INTERDISCIPLINARY STUDIES 1-3 UNITS

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours

Individual study, research or projects in Interdisciplinary Studies under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

### 298 SELECTED TOPICS IN INTERDISCIPLINARY STUDIES 1-3 UNITS

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Interdisciplinary Studies not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

### 299 SELECTED TOPICS IN INTERDISCIPLINARY STUDIES 1-3 UNITS

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Interdisciplinary Studies not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

## LIBRARY INFORMATION RESOURCES

### 110 RESEARCH METHODS IN AN ONLINE WORLD 1 UNIT

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture

Designed for the student who would like to become an effective online researcher. Students will learn how to select and effectively use appropriate research tools—such as search engines, online directories, meta-search engines, subscription databases and online catalogs—for specific information needs. Students will develop search strategies and focus on expressing their research questions in relevant search terms. In addition, they will learn how to evaluate information for quality, authority, accuracy, and other criteria. Ethical issues about information will also be introduced. *Familiarity with basic microcomputer operation is strongly recommended.*

**CSU**

### 199 SPECIAL STUDIES OR PROJECTS IN LIBRARY INFORMATION RESOURCES 1-3 UNITS

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours

Individual study, research or projects in Library Information Resources under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

### 298 SELECTED TOPICS IN LIBRARY INFORMATION RESOURCES 1-3 UNITS

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Library Information Resources not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

### 299 SELECTED TOPICS IN LIBRARY INFORMATION RESOURCES 1-3 UNITS

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Library Information Resources not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

# MATHEMATICS

- 088 BASIC MATHEMATICS AND PRE-ALGEBRA** **4 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture, 1 hour laboratory  
 Review of the fundamentals of arithmetic including addition, subtraction, multiplication and division with emphasis on mental arithmetic. Operations with fractions, decimals and percents are also emphasized. The derivation and use of selected measurement concepts and the development of pre-algebra ideas such as variable, signed numbers and equations are included. Area and volume formulas for fundamental shapes are stressed. These topics are explored in the context of problem solving and appropriate calculator use. **Credit/No Credit only. Non-associate degree applicable.**
- 090 ELEMENTARY ALGEBRA** **5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: Credit in MATH 088 or equivalent  
 5 hours lecture, 1 hour laboratory  
 Emphasizes mathematical reasoning, problem solving, and real-world applications using numerical, algebraic and graphical models. Topics include problem-solving techniques, algebraic expressions, polynomials, linear and quadratic equations, linear inequalities, linear and nonlinear graphs, systems of linear equations in two variables, integer exponents, proportions, and radicals. Selection and application of appropriate graphing utility and/or computer program to interpret, model and analyze a collection of data or application problems. Computational techniques developed in pre-algebra are prerequisite skills for this course. Recommended for students with little or no recent knowledge of algebra. **Credit/No Credit only. Non-associate degree applicable.**
- 097 PLANE GEOMETRY** **3 UNITS**  
 Prerequisite: Credit in MATH 090 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introduces essential vocabulary, properties and characteristics of geometric objects and geometric constructions. The concepts of plane geometry are developed inductively and then deductively. Computer-facilitated instruction offers a dynamic presentation of geometric concepts. **Credit/No Credit only. Non-associate degree applicable.**
- 098 INTRODUCTION TO GRAPHING CALCULATORS** **1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: Credit in MATH 090 or equivalent  
 1 hour lecture  
 For students who wish to acquire skills in using graphing calculators. Calculator uses will include, but are not limited to: arithmetic operations, equations, inequalities, graphing and basic statistics. Hands-on approach will be employed. **Credit/No Credit only. Non-associate degree applicable.**
- 103 INTERMEDIATE ALGEBRA** **3 UNITS**  
 Prerequisite: Credit in MATH 090 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 1 hour laboratory  
 Graphic, numeric, analytic and applied problems on topics including linear, quadratic, exponential and logarithmic functions, exponents and radicals. Selection and application of appropriate graphing utility and/or computer program to interpret, model and analyze data, graphs and/or application problems. Additional topics include systems of equations, algebraic fractions, radicals, equations involving inequalities and absolute value, and complex numbers. *Maximum of 5 units can be earned for taking MATH 103 and 110.*  
**AA/AS GE**
- 110 INTERMEDIATE ALGEBRA FOR BUSINESS, MATHEMATICS, SCIENCE AND ENGINEERING** **5 UNITS**  
 Prerequisite: Credit in MATH 090 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture, 1 hour laboratory  
 Application of graphic, numeric and analytic methods to model, interpret and solve real-world problems involving: linear, quadratic, rational, radical, exponential and logarithmic functions; systems of linear and quadratic equations or inequalities; and absolute value equations or inequalities. Selection and application of appropriate graphing utility and/or computer program to interpret, model and analyze a collection of data and/or application problems. Additional topics include conic sections and an introduction to matrices and determinants. Computational techniques developed in beginning algebra are prerequisite skills for this course. Appropriate for students with knowledge of beginning algebra or who have had at least two years of high school algebra but have not used it for several years. *Maximum of five 5 units can be earned for taking MATH 103 and 110.*  
**AA/AS GE**
- 120 MATHEMATICS FOR GENERAL EDUCATION** **3 UNITS**  
**(CAN MATH 2)**  
 Prerequisite: MATH 103 or 110 with a grade of "C" or better or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Topics from logic, modern algebra, set theory, probability, statistics and computer math designed to give students a very brief introduction to the structure of mathematical theories and their application. General education course in mathematics.  
**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**
- 125 STRUCTURE AND CONCEPTS OF ELEMENTARY MATHEMATICS I** **3 UNITS**  
 Prerequisite: MATH 103 or 110 and 097 with a grade of "C" or better or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 1 hour laboratory  
 In blending the mathematical topics of sets, whole numbers, numeration, number theory, integers, rational and irrational numbers, measurement, relations, functions and logic, the course will investigate the interrelationships of these topics using a problem-solving approach and appropriate use of technology.  
**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

- 126 STRUCTURE AND CONCEPTS OF ELEMENTARY MATHEMATICS II** **3 UNITS**  
 Prerequisite: MATH 125 with a grade of "C" or better or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 1 hour laboratory  
 In blending the mathematical topics of statistics, probability, measurement, coordinate geometry, plane geometry, solid geometry, logic, relations and functions, the course will investigate the interrelationships of these topics using a problem-solving approach and appropriate use of technology.  
**CSU, CSU GE, IGETC, UC credit limit**
- 128 CHILDREN'S MATHEMATICAL THINKING** **1.5 UNITS**  
 Prerequisite: None  
 Corequisite: MATH 125  
 Recommended Preparation: None  
 1.5 hours lecture  
 Children's mathematical thinking and in-depth analyses of children's understanding of operations (addition, subtraction, multiplication, division) and place value. Students will observe individual children solving mathematics problems.  
**CSU**
- 150 INTRODUCTION TO COMPUTER PROGRAMMING WITH FORTRAN** **3 UNITS**  
 Prerequisite: MATH 103 or 110  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Analysis of mathematical application problems and solutions from statistics, engineering, and the physical sciences using the digital computer. Fundamentals of structured technical programming in FORTRAN 77 including language commands.  
**CSU, UC**
- 160 ELEMENTARY STATISTICS** **3 UNITS**  
**(CAN STAT 2)**  
 Prerequisite: MATH 103 or 110 with a grade of "C" or better or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture, 1 hour laboratory  
 Study and application of the concepts and procedures of descriptive statistics, probability theory and inferential statistics. In descriptive statistics: organize, summarize and display data including frequency tables and histograms; exploratory data analysis; measures of central tendency, variation and position. In probability theory: fundamental rules and definitions of probability; counting; central limit theorem; probability distributions including the binomial, normal, Student T, chi-square, and F. In inferential statistics: estimation and hypothesis testing for means, proportions and variances; contingency tables; ANOVA models; linear regression and correlation; nonparametric methods. Applications may be included from various fields such as biology, business, economics, education, engineering, demography and psychology.  
**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**
- 170 ANALYTIC TRIGONOMETRY** **3 UNITS**  
**(CAN MATH 8)**  
 Prerequisite: MATH 110 and 097 with a grade of "C" or better or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Theoretical approach to the study of the trigonometric functions with emphasis on circular functions, trigonometric identities, trigonometric equations, graphical methods, vectors and applications, complex numbers and solving triangles with applications.  
**AA/AS GE, CSU, CSU GE**
- 175 COLLEGE ALGEBRA** **4 UNITS**  
**(CAN MATH 10)**  
 Prerequisite: MATH 110 with a grade of "C" or better or equivalent (MATH 103 does not meet the prerequisite)  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture  
 Graphic, numeric and analytic approaches to the study of precalculus concepts from college algebra. Application of appropriate technology including but not limited to graphing utilities to model, analyze and interpret a collection of data or to solve real-world application problems from a variety of disciplines. Topics include: the real number system; algebraic, exponential and logarithmic functions and their inverses; graphing techniques for polynomial and rational functions; complex numbers; theory of equations; partial fractions; mathematical induction; sequences and series; matrices; and the binomial theorem. *Maximum of 7 units can be earned for successfully completing any combination of MATH 170, 175 and 176. Students preparing to take calculus must take MATH 170 and 175 or 176.*  
**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**
- 176 PRECALCULUS: FUNCTIONS AND GRAPHS** **6 UNITS**  
 Prerequisite: MATH 110 and 097 with a grade of "C" or better or equivalent (MATH 103 does not meet the prerequisite)  
 Corequisite: None  
 Recommended Preparation: None  
 6 hours lecture  
 Graphic, numeric and analytic approaches to the study of precalculus concepts from college algebra and analytic trigonometry. Application of appropriate technology including but not limited to graphing utilities to model, analyze and interpret a collection of data or to solve real-world application problems from a variety of disciplines. Topics include the real number system; algebraic, exponential and logarithmic functions and their inverses; graphing techniques for polynomial, rational and trigonometric functions; complex numbers; theory of equations; trigonometric functions and their inverses with emphasis on the circular functions; trigonometric equations and identities; vectors; right and oblique triangles; partial fractions; polar coordinates; mathematical induction; sequences and series; matrices; the binomial theorem. *Maximum of 7 units can be earned for successfully completing any combination of MATH 170, 175 and 176. Students preparing to take Calculus must take MATH 170 and 175 or 176.*  
**AA/AS GE, CSU, CSU GE, UC credit limit**

- 178 CALCULUS FOR BUSINESS, SOCIAL AND BEHAVIORAL SCIENCES** **4 UNITS**  
(*CAN MATH 30*)  
Prerequisite: MATH 110 with a grade of "C" or better or equivalent (MATH 103 does not meet the prerequisite)  
Corequisite: None  
Recommended Preparation: None  
4 hours lecture  
Concepts and applications of algebra and polynomial calculus. Designed for students in business, social sciences and behavioral sciences. *Not open to students with credit in MATH 180.*  
**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**
- 180 ANALYTIC GEOMETRY AND CALCULUS I** **5 UNITS**  
(*CAN MATH 18; CAN MATH SEQ B = MATH 180+280, CAN MATH SEQ C = MATH 180+280+281*)  
Prerequisite: MATH 170 and 175 or 176 with a grade of "C" or better or equivalent  
Corequisite: None  
Recommended Preparation: None  
5 hours lecture  
Graphic, numeric and analytic approaches to the study of analytic geometry, limits and continuity of functions, and introductory differential and integral calculus. Applications involving analysis of algebraic, exponential, logarithmic, trigonometric and hyperbolic functions from a variety of disciplines including science, business and engineering. First of three courses designed to provide serious science students with a solid introduction to the theory and techniques of analysis.  
**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**
- 198 SUPERVISED TUTORING** **0 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
TBA hours  
Uses a variety of educational tools to assist students with various learning needs. Can be used to strengthen prerequisite skills prior to enrolling in a specific course or to receive supplemental assistance while concurrently enrolled in another course. *May be repeated with different content. No fee/no credit course.*
- 199 SPECIAL STUDIES OR PROJECTS IN MATHEMATICS** **1-3 UNITS**  
Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
3-9 hours  
Individual study, research or projects in Mathematics under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 245 DISCRETE MATHEMATICS** **3 UNITS**  
Prerequisite: MATH 280 with a grade of "C" or better or equivalent  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture  
Introduction to discrete mathematics. Includes basic logic, methods of proof, sequences, elementary number theory, basic set theory, elementary counting techniques, relations, and recurrence relations.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 280 ANALYTIC GEOMETRY AND CALCULUS II** **4 UNITS**  
(*CAN MATH 20; CAN MATH SEQ B = MATH 180+280, CAN MATH SEQ C = MATH 180+280+281*)  
Prerequisite: MATH 180 with a grade of "C" or better or equivalent  
Corequisite: None  
Recommended Preparation: None  
4 hours lecture  
Continuation of MATH 180. Includes parametric equations, polar coordinates, hyperbolic functions, techniques of integration, indeterminate forms, infinite series and conics.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 281 INTERMEDIATE CALCULUS** **4 UNITS**  
(*CAN MATH 22; CAN MATH SEQ C = MATH 180+280+281*)  
Prerequisite: MATH 280 with a grade of "C" or better or equivalent  
Corequisite: None  
Recommended Preparation: None  
4 hours lecture  
Sequel to MATH 280. Includes vectors in two and three dimensions, partial differentiation, iterated integration, line and surface integrals, application of Green's and Stokes' theorems, work with cylindrical and spherical coordinates, and an introduction to linear algebra.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 284 LINEAR ALGEBRA** **3 UNITS**  
(*CAN MATH 26*)  
Prerequisite: MATH 280 with a grade of "C" or better or equivalent  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture  
Matrix operations, Gauss elimination, determinants, vector spaces, linear transformations, orthogonality, eigenvalues and eigenvectors.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 285 DIFFERENTIAL EQUATIONS** **3 UNITS**  
(*CAN MATH 24*)  
Prerequisite: MATH 280 with a grade of "C" or better or equivalent  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture  
Includes first order differential equations, initial boundary value problems, the Cauchy-Euler equation, series solutions, Laplace transformations, Fourier Series, and separation of variables for elementary partial differential equations. Applications of these topics will be explored.  
**CSU, CSU GE, IGETC, UC**
- 288 SELECTED TOPICS IN MATHEMATICS** **1-6 UNITS**  
Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
1-18 hours  
Selected topics in Mathematics not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN MATHEMATICS** 1-6 UNITS  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-18 hours  
 Selected topics in Mathematics not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## MUSIC

**001 RUDIMENTS OF MUSIC AND MUSICIANSHIP** 4 UNITS  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture  
 Basic elements of music. Notation and major and minor keys, triads and inversions, musical terms and analysis involving intervals and simple chord structures. Sight-singing and dictation of basic music materials. Some keyboard activity.  
**CSU**

**105 MUSIC THEORY AND PRACTICE I** 4 UNITS  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture, 2 hours laboratory  
 An introduction to music theory and ear-training. Study of harmonic concepts of the 18th and 19th centuries. Rhythmic and melodic ear-training. Keyboard application and sight singing.  
**CSU, UC**

**106 MUSIC THEORY AND PRACTICE II** 4 UNITS  
 Prerequisite: MUS 105 with a grade of "C" or better or "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture, 2 hours laboratory  
 Continuation of MUS 105. Four-part writing, 7th chords, cadences and non-chord tones. Rhythmic and melodic dictation and harmonic ear-training. Sight singing. Analysis of Bach chorales and binary and ternary forms.  
**CSU, UC**

**108-109 INSTRUMENTAL MUSIC ENSEMBLE** 1 UNIT  
 Prerequisite: Audition  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture/laboratory  
 Study and performance of music literature for an ensemble of mixed instruments.  
**CSU**

**110 GREAT MUSIC LISTENING** 3 UNITS  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Listening and reading survey course to acquaint students with fundamental elements of musical style. Covers repertoire from a variety of cultures and periods with primary emphasis on the Western concert tradition.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

**111 HISTORY OF JAZZ** 3 UNITS  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Listening and reading survey course covering the history of jazz from its origins to the present. Includes style periods, significant artists, the broad cultural context of jazz, and the development of critical listening skills.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

**112 PIANO I** 2 UNITS  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture  
 Piano for non-music majors. Emphasis on reading staff notation, harmonization, improvisation and music fundamentals.  
**CSU, UC**

**113 PIANO II** 2 UNITS  
 Prerequisite: MUS 112 or by performance evaluation  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture  
 Piano for non-music majors. Continuation of MUS 112 with emphasis on reading staff notation and playing rhythms at an intermediate level.  
**CSU, UC**

**115 HISTORY OF ROCK MUSIC** 3 UNITS  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Presents an overview of rock and rock-related musical styles from the early 1950s to the present. Includes the interplay of social and cultural trends with the innovations and achievements of individual artists, the ongoing influence of technology on music, the cross-fertilization of African and European-American popular music styles, and recurring cycles of rebellion against and assimilation by the popular music industry. In addition, basic musical concepts such as pitch, rhythm and form will be introduced and applied to the music under consideration.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

- 116 INTRODUCTION TO WORLD MUSIC 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to expand the student's perspective about the nature of music around the world and demonstrate the relationship between music in different cultures. Highlights elements common to all music. May include music of the cultures of India, China, Japan, Indonesia, Africa, Pacific Islands, the Middle East, Europe and the Americas.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 118 INTRODUCTION TO MUSIC 4 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture  
 Study of basic music theory including notation, rhythms, scales, intervals, triads and sight-singing. Introduction to basic rhythm instruments and development of keyboard facility and vocal skill. Designed for preschool/elementary education majors and non-music majors.  
**CSU, UC**
- 126 CLASS GUITAR I 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture  
 Beginning course in guitar for non-music majors. Fundamentals of music as related to the guitar including scales, chords, and reading staff notation.  
**CSU, UC**
- 127 CLASS GUITAR II 2 UNITS**  
 Prerequisite: MUS 126 with a grade of "C" or better or "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture  
 Guitar for non-music majors. Continuation of MUS 126 with emphasis on reading staff notation in closed positions, playing scales and chords in major and minor keys, and developing both left and right hand technique.  
**CSU, UC**
- 132 CLASS PIANO I 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Note reading in treble and bass clefs. Major and minor key signatures. Scales, arpeggios and primary triads in major and minor keys. Transposition, improvisation and harmonization. Development of sight reading ability, two-handed coordination, correct fingering techniques and proper use of weight and relaxation in production of tone.  
**CSU, UC**
- 133 CLASS PIANO II 3 UNITS**  
 Prerequisite: MUS 132 with a grade of "C" or better or "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Continuation of MUS 132. Scales in minor keys. Scales with hands together. Music literature performed in major and minor keys. Harmonization and sight reading in major and minor keys. Piano pieces in binary form with mixed texture including parallel, contrary and oblique motion.  
**CSU, UC**
- 136-137 CHAMBER SINGERS 1 UNIT**  
 Prerequisite: Audition  
 Corequisite: None  
 Recommended Preparation: None  
 2.5 hours lecture, 2.5 hours laboratory  
 The study of standard and contemporary choral literature (classics to jazz) for small choral ensemble. Performances on campus and in local schools and communities. Enrollment open to all singers in the community and to students of the college.  
**CSU, UC**
- 156-157 JAZZ ENSEMBLE 1 UNIT**  
 Prerequisite: Audition  
 Corequisite: None  
 Recommended Preparation: None  
 2.5 hours lecture, 2.5 hours laboratory  
 Study of representative jazz ensemble compositions in a wide variety of styles at regular rehearsals and public performances.  
**CSU, UC**
- 158-159 CHORUS 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture/laboratory  
 Study and performance of standard and contemporary choral literature for choral ensemble. Open to all singers in the community and students of the college.  
**CSU, UC**
- 170-171 CLASS VOICE 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: Ability to read music  
 2 hours lecture  
 Designed to help the student learn to use the voice correctly. Principles of vocal placement, posture, balance, breath control and vocal tone are emphasized through individual performances.  
**CSU, UC**
- 190-191 PERFORMANCE STUDIES 1 UNIT**  
 Prerequisite: Membership by audition  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture  
 Primarily for music majors. Designed to enhance the musical progress of students who are currently receiving the equivalent of fifteen one-half hour lessons per semester of individual vocal or instrumental instruction. In-depth study of performances and techniques. Participation in class performances and student recitals is required.  
**CSU**

- 199 SPECIAL STUDIES OR PROJECTS IN MUSIC** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Music under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 205 MUSIC THEORY AND PRACTICE III** **4 UNITS**  
 Prerequisite: MUS 106 with a grade of "C" or better or "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture, 2 hours laboratory  
 Continuation of MUS 106. Chromatic harmony of the 18th and 19th centuries including secondary dominants, borrowed chords and altered chords. Rhythmic, melodic and harmonic dictation. Sight singing. Analysis of Bach chorales. Form analysis of Sonata-form, Minuet/Scherzo, Rondo, and Theme and Variations.  
**CSU, UC**
- 206 MUSIC THEORY AND PRACTICE IV** **4 UNITS**  
 Prerequisite: MUS 205 with a grade of "C" or better or "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 4 hours lecture, 2 hours laboratory  
 Continuation of MUS 205. Harmony of the Post-Romantic and 20th century styles. Expanded tonality. Use of church modes, pentatonic, synthetic and dodecaphonic scales. Parallelism, pandiatonicism, twelve-tone technique, aleatory music and electronic music. Study of the 18th century two-part counterpoint. Ear-training and sight singing.  
**CSU, UC**
- 208-209 INSTRUMENTAL MUSIC ENSEMBLE** **1 UNIT**  
 Prerequisite: Audition  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture/laboratory  
 Study and performance of music literature for an ensemble of mixed instruments.  
**CSU**
- 212 PIANO III** **2 UNITS**  
 Prerequisite: MUS 113 or by performance evaluation  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture  
 Piano for non-music majors. Continuation of MUS 113 with emphasis on intermediate level staff notation, piano technique and musicianship.  
**CSU, UC**
- 213 PIANO IV** **2 UNITS**  
 Prerequisite: MUS 212 or by performance evaluation  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture  
 Piano for non-music majors. Continuation of MUS 212 with emphasis on advanced staff notation, piano technique and musicianship.  
**CSU, UC**
- 226 CLASS GUITAR III** **2 UNITS**  
 Prerequisite: MUS 127 with a grade of "C" or better or "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture  
 Guitar for non-music majors. Continuation of MUS 127 with emphasis on high position reading, introductory chord and scale alterations, and technical development.  
**CSU, UC**
- 227 CLASS GUITAR IV** **2 UNITS**  
 Prerequisite: MUS 226 with a grade of "C" or better or "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture  
 Guitar for non-music majors. Continuation of MUS 226 with emphasis on playing solos and accompaniments in various styles and idioms.  
**CSU, UC**
- 232 CLASS PIANO III** **3 UNITS**  
 Prerequisite: MUS 133 with a grade of "C" or better or "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Continuation of MUS 133. Multiple octave performance of major and minor scales. Authentic and plagal cadences. Reading of four-part chorales. Ensemble playing and accompaniment. Intermediate piano pieces in ternary form.  
**CSU, UC**
- 233 CLASS PIANO IV** **3 UNITS**  
 Prerequisite: MUS 232 with a grade of "C" or better or "CR" or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Continuation of MUS 232. Keyboard harmony and deceptive cadence. Reading an open score. Ensemble playing and accompaniment. Piano literature from the 18th through the 20th centuries.  
**CSU, UC**
- 236-237 CHAMBER SINGERS** **1 UNIT**  
 Prerequisite: Audition  
 Corequisite: None  
 Recommended Preparation: None  
 2.5 hours lecture, 2.5 hours laboratory  
 The study of standard and contemporary choral literature (classics to jazz) for small choral ensemble. Performances on campus and in local schools and communities. Enrollment open to all singers in the community and to students of the college.  
**CSU, UC**
- 256-257 JAZZ ENSEMBLE** **1 UNIT**  
 Prerequisite: Audition  
 Corequisite: None  
 Recommended Preparation: None  
 2.5 hours lecture, 2.5 hours laboratory  
 Study of representative jazz ensemble compositions in a wide variety of styles at regular rehearsals and public performances.  
**CSU, UC**

- 258-259 CHORUS** **1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours lecture/laboratory  
 Study and performance of standard and contemporary choral literature for choral ensemble. Open to all singers in the community and students of the college.  
**CSU, UC**
- 270-271 CLASS VOICE** **2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: Ability to read music  
 2 hours lecture  
 Designed to help the student learn to use the voice correctly. Principles of vocal placement, posture, balance, breath control and vocal tone are emphasized through individual performances.  
**CSU, UC**
- 290-291 PERFORMANCE STUDIES** **1 UNIT**  
 Prerequisite: Membership by audition  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture  
 Primarily for music majors. Designed to enhance the musical progress of students who are currently receiving the equivalent of fifteen one-half hour lessons per semester of individual vocal or instrumental instruction. In-depth study of performances and techniques. Participation in class performances and student recitals is required.  
**CSU**
- 298 SELECTED TOPICS IN MUSIC** **1-4 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours  
 Selected topics in Music not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN MUSIC** **1-4 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours  
 Selected topics in Music not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## NATIVE AMERICAN STUDIES

- 199 SPECIAL STUDIES OR PROJECTS IN NATIVE AMERICAN STUDIES** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Native American Studies under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 298 SELECTED TOPICS IN NATIVE AMERICAN STUDIES** **1-5 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-15 hours  
 Selected topics in Native American Studies not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN NATIVE AMERICAN STUDIES** **1-5 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-15 hours  
 Selected topics in Native American Studies not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## OCEANOGRAPHY

### 112 INTRODUCTION TO OCEANOGRAPHY 3 UNITS

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

A physical science course which examines major aspects of the marine environment. Topics include the origin of the oceans, plate tectonics, seafloor features, seawater properties, ocean climate, currents, waves, tides, coastal landforms, marine ecology, pollution and resources. The history and development of oceanography and the present and future importance of the oceans are also discussed. *Not open to students with credit in SCI 112.*

**AA/AS GE, CSU, CSU GE, IGETC, UC**

### 199 SPECIAL STUDIES OR PROJECTS IN OCEANOGRAPHY 1-3 UNITS

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours

Individual study, research or projects in Oceanography under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

### 298 SELECTED TOPICS IN OCEANOGRAPHY 1-3 UNITS

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Oceanography not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

### 299 SELECTED TOPICS IN OCEANOGRAPHY 1-3 UNITS

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Oceanography not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

## ORNAMENTAL HORTICULTURE

### 102 XERISCAPE: WATER CONSERVATION IN THE LANDSCAPE 2 UNITS

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture

Water management principles and practices as they apply to the landscape. Topics include plant selection, landscape design principles for water conservation, irrigation system selection and management, soil preparation and management, and current topics and issues of California and United States water conservation efforts.

**CSU**

### 114 FLORAL DESIGN I 3 UNITS

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory

Theory and practice of basic geometric floral design, identification of flowers and foliages, and practical skills necessary for employment in the floral industry. Fresh and dried flowers will be used.

**CSU**

### 116 FLORAL DESIGN II 3 UNITS

Prerequisite: OH 114  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory

Theory and practice of parallel, vegetative, new wave and contemporary line designs for parties, holidays and special occasions primarily using fresh flowers. Silks, dried flowers, foliages and unique props for creating floral designs will also be covered.

**CSU**

### 117 WEDDING DESIGN I 3 UNITS

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory

Numerous styles of wedding bouquets and corsages including church and reception floral designs, with emphasis on skills, mechanics and speed necessary for use in the floral industry.

**CSU**

### 118 SPECIAL OCCASION FLORISTRY 3 UNITS

Prerequisite: OH 114 or one year high school floral design or trade experience  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory

Students will learn to create unique floral arrangements used for parties, weddings, funerals and gala events. Arrangements will focus on the use of unusual and exotic flowers, containers and special mechanical props.

**CSU**

- 119 WEDDING DESIGN II 3 UNITS**  
 Prerequisite: OH 117  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Theory and practice of designs used for weddings including bouquets for brides and attendants, corsages, church decorations, and reception decorations primarily using fresh flowers.  
**CSU**
- 120 FUNDAMENTALS OF ORNAMENTAL HORTICULTURE 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Study of plant structure and function. Topics include basic principles of soil science and fertilizer requirements, and the growth of plants in regard to the environmental factors of water, light and temperature. The lab provides an overview of various skills needed in all fields of ornamental horticulture including pruning, basic equipment operation, fertilizer application and general nursery skills.  
**CSU**
- 121 PLANT PROPAGATION 3 UNITS**  
**(CAN AG 10)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Principles of plant propagation from seed, cutting, budding, grafting, layering, division and tissue culture. Greenhouses, cold frames, mist chambers and other propagating structures will be discussed along with stock selection, use of rooting hormones, proper sanitation procedures and protection of young seedlings from disease. Lab exercises include propagation of plant material by various methods as well as working with various structures, tools and equipment common to plant propagation.  
**CSU**
- 130 PLANT PEST CONTROL 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Identification and control of insects, mites, spiders, snails, weeds and diseases that affect ornamental plants. Emphasizes their morphological and phylogenetic relationships, habits, habitats and important characteristics affecting the health of ornamental plants. Control methods will stress integrated pest management.  
**CSU**
- 140 SOILS 3 UNITS**  
**(CAN AG 14)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Study of soil formation, characteristics and classification. Emphasis on the management of various soil types with regard to pH, salinity, texture, organic matter control and other variables. The lab will include investigation of soil conditions, problems and management solutions common to soils in Southern California.  
**CSU, UC**
- 170 PLANT MATERIALS: TREES AND SHRUBS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Identification, cultural requirements and landscape uses of ornamental trees and shrubs common to the California landscape.  
**CSU, UC**
- 172 INTRODUCTION TO LANDSCAPE DESIGN 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Principles of landscape design for residential projects. The emphasis is upon residential landscape design and the creation of usable, pleasant outdoor spaces. This will be accomplished with an emphasis on size and placement of plants, walks, patios and other structures in the residential landscape. The lab emphasizes practice in the design and drafting of actual landscape projects.  
**CSU**
- 173 INTERMEDIATE LANDSCAPE DESIGN 3 UNITS**  
 Prerequisite: OH 172  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Landscape design course covering advanced site analysis, use relationships, outside furniture and structures, color presentations and client/designer relationships as they relate to estate, greenbelt and advanced planting designs.  
**CSU**
- 174 TURF AND GROUND COVER MANAGEMENT 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Building, care and maintenance of turf grasses and ground covers in parks and landscaping. Soil preparation, planting, fertilizing and maintenance of common and special turf grasses and ground covers. Particular pest and disease problems and their control.  
**CSU**
- 175 ADVANCED LANDSCAPE DESIGN 3 UNITS**  
 Prerequisite: OH 173  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Advanced development, design and presentation of residential landscape projects incorporating slope analysis, codes and ordinances, client or institutional requirements, detail sheets, sections and cost estimates. Client presentation of concept, lighting and planting plans will utilize sketches, demonstration boards and digital presentation techniques.

- 180 PLANT MATERIALS: ANNUALS AND PERENNIALS** **3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture  
Identification, cultural requirements and landscape value of common annuals and perennials used as bedding plants, annual color and in the commercial floral industry.  
**CSU**
- 199 SPECIAL STUDIES OR PROJECTS IN ORNAMENTAL HORTICULTURE** **1-3 UNITS**  
Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
3-9 hours  
Individual study, research or projects in Ornamental Horticulture under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 200 INTRODUCTION TO COMPUTER AIDED LANDSCAPE DESIGN** **3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
2 hours lecture, 3 hours laboratory  
Introduction to computer aided landscape design using AutoCAD software. Creation of site plans, landscape plans, sprinkler plans, contour maps and landscape estimates. Elevation and perspective drawings are also created.  
**CSU**
- 201 ADVANCED COMPUTER AIDED LANDSCAPE DESIGN** **3 UNITS**  
Prerequisite: OH 200  
Corequisite: None  
Recommended Preparation: None  
2 hours lecture, 3 hours laboratory  
Use of computer aided design software for the application of graphics, symbols, patterns, layouts, text and scales for development of design drawings, concept plans, construction documents and cost estimates for residential landscape projects.
- 220 LANDSCAPE CONSTRUCTION: CONCRETE AND MASONRY** **3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
2 hour lecture, 3 hours laboratory  
Study of landscape construction methods and materials. Topics include landscape contract law, concrete flat work including stamped concrete, brick, block, stone masonry, and proper design and construction of retaining and free standing walls. Grading and installation of plant material will also be covered.  
**CSU**
- 221 LANDSCAPE CONSTRUCTION: IRRIGATION AND CARPENTRY** **3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
2 hours lecture, 3 hours laboratory  
Study of landscape construction methods and materials. Topics include irrigation and drainage plan reading, materials and components, installation and construction. Installation and troubleshooting of control valves and control clocks will also be covered. Includes basic materials and methods for construction of decks, overhead structures, wooden fences and gates. Also covers code and design requirements for irrigation, drainage and landscape structures.  
**CSU**
- 222 JAPANESE GARDEN CONSTRUCTION AND MAINTENANCE** **1 UNIT**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
.5 hour lecture, 1.5 hours laboratory  
Introduction to Japanese garden concepts and techniques. Includes the professional practices required for construction and sustainable maintenance. Concepts and techniques of Japanese gardens will cover Sakuteiki, the oldest garden design book written in the 11th Century. Koi pond and waterfall construction, Zen stone garden (dry landscape garden), bamboo fences, water-basin, traditional pruning, and other basic construction and maintenance techniques will also be covered.
- 225 LANDSCAPE CONTRACTING** **3 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture  
Covers the practices in applying standard techniques in landscape construction and estimating for landscape trades. Reviews the rules, regulations and licensing laws governing landscape contractors set forth by the State of California. Includes an exploration of the field of landscape contracting and business practices associated with the landscape industry.  
**CSU**
- 235 PRINCIPLES OF LANDSCAPE IRRIGATION** **4 UNITS**  
Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
4 hours lecture  
Principles of hydraulics as applied to landscape irrigation systems including static and dynamic pressures, pipe flows and velocities, pipe sizing, water hammer, pump selection and use. Includes an introduction to system components including valves, backflow prevention devices, controllers and pumps and pipe.  
**CSU**

- 238 IRRIGATION SYSTEM DESIGN 3 UNITS**  
 Prerequisite: OH 235 or concurrent enrollment  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Introduces students to the basic design and technical skills required to produce professional irrigation system designs. Building on the knowledge acquired in OH 235, students will design complete spray and low-volume systems, calculate hydraulic parameters and schedules, prepare details and specifications, practice presentation skills, analyze working designs, learn head spacing and pipeline layout, and specify equipment using manufacturers' catalogs. A design studio environment is used (including team building and mentoring exercises) to prepare students for entry-level employment in the irrigation design field.  
**CSU**
- 240 GREENHOUSE PLANT PRODUCTION 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Study of greenhouse plant production. Emphasis on the scheduling of greenhouse crops common to Southern California. Sections will cover equipment, structures, environmental control, estimation of crop production requirements, production and sales of common greenhouse crops.  
**CSU**
- 260 ARBORICULTURE 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Intensive course in the preservation and care of woody plants from seedling to removal. Theory of tree growth, form, fertilization, irrigation, pruning and integrated pest management. Practical application of safety equipment, rope and saddle, climbing spurs, cabling, bracing, pruning and removal of trees.  
**CSU**
- 261 TREE SURGERY AND SPECIALIZED PRUNING TECHNIQUES 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture, .5 hour laboratory  
 Explores the concepts and procedures of specific pruning techniques for various ornamental and fruit trees to influence flowers, fruit and growth. Response to pruning is predictable and can be a management tool. Cabling, bracing, cavity repair, injury from failure treatments, crown cleaning versus crown thinning, and topping alternatives like crown reduction and restoration. Students will learn practical application of pruning theories and principles.  
**CSU**
- 262 ARBORICULTURE: PALMS AND RELATED PLANTS 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture, .5 hour laboratory  
 Provides opportunities to learn the physiology of palms and other monocots, identification traits, and appropriate uses of common species. Understanding requirements for proper growing conditions and pruning of these plants will improve cultural management and assist with the diagnosis and treatment of common biotic and abiotic disorders.  
**CSU**
- 263 URBAN FORESTRY 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture, .5 hour laboratory  
 Introduces students to the theory and practice of conducting detailed tree inventories, management of public trees, tree evaluation for hazard assessment and risk reduction programs, legal aspects of trees and appraisal of value methods for trees. Students will also learn site evaluation, benefits of tree volunteer organizations, priority action plans and emergency response plans.  
**CSU**
- 265 GOLF COURSE AND SPORTS TURF MANAGEMENT 3 UNITS**  
 Prerequisite: OH 174 or concurrent enrollment  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory  
 Designed to give students advanced study in the specialization of both golf course and athletic field management. Includes specialized turf management techniques, specialized equipment, budget development, scheduling requirements and administrative considerations.  
**CSU**
- 275 DIAGNOSING HORTICULTURAL PROBLEMS 1.5 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: OH 120, 130  
 1 hour lecture, 1.5 hours laboratory  
 Provides methods for positive identification and understanding of symptoms for accurate diagnosis of plant problems in the landscape and nursery. Biotic and abiotic causal agents including cultural influences, nutrient deficiencies and toxicities, pest and disease problems, soil salinity, aeration, drainage and irrigation problems will be discussed. Control and correction of disorders will be determined through an understanding of the organism or function involved.  
**CSU**

**276 HORTICULTURAL EQUIPMENT REPAIR AND MAINTENANCE 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory

General maintenance and specific repair procedures for common horticultural equipment including troubleshooting, tune-up and proper preventive maintenance programs for small and medium two- and four-cycle engines. The lab includes work on mowers, trenchers, trimmers, tractors, spray rigs and other equipment.

**CSU**

**278 BUSINESS MANAGEMENT FOR ORNAMENTAL HORTICULTURE 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Principles and practices for the small business owner in the landscape, nursery, floral design, arboriculture or irrigation industries. The course will focus on the aspects of business management that are unique to the green industry. Topics will include marketing, bidding, taxes and regulations, personnel and customer relations.

**CSU**

**283 CROSS CONNECTION CONTROL SHUTDOWN TEST PROCEDURES 1 UNIT**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture

Designed to train students in the legal and practical aspects of performing a cross connection shutdown test for sites using recycled water. Helps prepare students for certification for work with recycled water on landscape sites.

**290 COOPERATIVE WORK EXPERIENCE EDUCATION 1-4 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours paid or 4 hours unpaid work experience per week per unit

Practical application of principles and procedures learned in the classroom to the various phases of horticulture. Work experience will be paid or unpaid at local nurseries and landscape-related companies. Placement assistance will be given. Two on-campus sessions with students will be scheduled. *May be repeated for a maximum of 12 units.*

**CSU**

**298 SELECTED TOPICS IN ORNAMENTAL HORTICULTURE 1-4 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours

Selected topics in Ornamental Horticulture not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN ORNAMENTAL HORTICULTURE 1-4 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours

Selected topics in Ornamental Horticulture not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

## PARALEGAL STUDIES

**100 INTRODUCTION TO PARALEGAL STUDIES 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

The role of the paralegal including business development, client contact, ethical responsibilities, investigative fact finding, law office management and legal restrictions are the main focus of this course. Students will be introduced to the function of statutes, case law, administrative regulations and constitutions within the legal system.

**CSU**

**110 CIVIL LITIGATION PRACTICE AND PROCEDURES 3 UNITS**

Prerequisite: PARA 100 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

The initial phase of an action, the complaint and the discovery process will be examined. Court procedures, "Fast Track" and alternatives to litigation such as arbitration and mediation will be discussed. The basic elements of a tort claim will be reviewed, as well as the Federal and State Rules of Evidence. Emphasis on the paralegal's role and ethical and professional responsibilities in discovery procedures and trial practice.

**CSU**

**120 ADMINISTRATIVE LAW 3 UNITS**

Prerequisite: PARA 100  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Statutory law, case law and administrative rules will be utilized to develop an understanding of the role and authority of administrative agencies. Particular attention will be paid to social security and worker's compensation claims.

**CSU**

**125 BUSINESS ORGANIZATION 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Fundamentals of the formation of business entities such as sole proprietorships, partnerships and corporations are included. Students will prepare documents regarding the formation of such organizations.

**CSU**

- 130 LEGAL RESEARCH AND WRITING 3 UNITS**  
 Prerequisite: PARA 100 or equivalent  
 Corequisite: None  
 Recommended Preparation: ENGL 110 with a grade of "C" or better  
 3 hours lecture  
 Includes in-depth legal research, writing research reports and subject matter reports on legal issues, case briefings and citations utilizing the uniform system of citation ("Blue Book") and other citators.  
**CSU**
- 132 COMPUTER ASSISTED LEGAL RESEARCH (CALR) 3 UNITS**  
 Prerequisite: PARA 100, 130 or concurrent enrollment in PARA 130 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Study of personal computer software and programs designed specifically for use in law offices and legal environments, including but not limited to specific applications such as estate planning, probate accounting, bankruptcy filings, calendaring, legal project management, deposition summaries, computer assisted research (including CD ROM applications), and time and billing programs.  
**CSU**
- 135 BANKRUPTCY LAW 1 UNIT**  
 Prerequisite: PARA 100  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture  
 The United States Federal Bankruptcy Act (as amended) will be the foundation of this examination of bankruptcy law and practice. Students will be exposed to the jurisdictional and filing requirements for bankruptcy cases under Chapters 7, 11 and 13 of the Bankruptcy Act and will learn the rules of federal procedure associated with bankruptcy case filings.  
**CSU**
- 140 CRIMINAL LAW AND PROCEDURES 3 UNITS**  
 Prerequisite: PARA 100  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 The California Criminal Code and Rules of Criminal Procedure will be the foundation of this examination of the pre-trial and post-trial procedures in a criminal case. Students will be exposed to the criminal justice system from the elements of offenses through post-conviction remedies. The drafting of motions and other documents associated with criminal matters will be included.  
**CSU**
- 145 ESTATE PLANNING 3 UNITS**  
 Prerequisite: PARA 100  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Overview of the subject of planning an owner's estate including a review of the customary means of accomplishing estate planning objectives including wills, trusts, taxation, asset protection and gift-giving programs.  
**CSU**
- 150 FAMILY LAW 3 UNITS**  
 Prerequisite: PARA 100  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Domestic relations matters such as marriage, divorce, dissolution, child custody and support, visitation and adoptions are included. The law regulating such matters and the drafting of appropriate documents will be emphasized.  
**CSU**
- 155 INSURANCE LAW 3 UNITS**  
 Prerequisite: PARA 100  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Includes principles of indemnity, interests protected, the transfer of risk, claims made versus occurrence policies, subrogation, review of insurance forms and alternative dispute resolution.  
**CSU**
- 160 PERSONAL INJURY 1 UNIT**  
 Prerequisite: PARA 100  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture  
 Study of the essentials of tort actions with emphasis on personal injury and other forms of negligence. Statutes of Limitations applicable to tort actions will be emphasized. Theories of recovery, filing requirements, case handling, witness interviewing and evidence requirements under current California law will be reviewed.  
**CSU**
- 165 PROBATE LAW 3 UNITS**  
 Prerequisite: PARA 100  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 The law of wills, estates and estate administration including testate and intestate estates, and law of descent and distribution will be discussed.  
**CSU**
- 170 WORKER'S COMPENSATION 1 UNIT**  
 Prerequisite: PARA 100 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture  
 Overview of California's Worker's Compensation statutes, including the concept of no-fault insurance and the administration of contested compensation claims for death, disability and vocational rehabilitation. Students will compute awards based upon current benefit formulae.  
**CSU**

**180 GOVERNMENT AND PUBLIC CONTRACTS 3 UNITS**

Prerequisite: PARA 100 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Study of government and public contracting rules and regulations including but not limited to Federal Acquisition Regulations (FAR) and Circulars, types of government contracts, Requests for Proposals (RFP), the Competition in Contracting Act (1984), and miscellaneous concepts in contracting with governmental agencies.

**CSU**

**199 SPECIAL STUDIES OR PROJECTS IN PARALEGAL STUDIES 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours

Individual study, research or projects in Paralegal Studies under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**250 INTERNSHIP 1-4 UNITS**

Prerequisite: PARA 100  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours paid or 4 hours unpaid work experience per week per unit

Practical work experience in a cooperating law office or corporate legal department. *May be repeated for a maximum of 9 units.*

**CSU**

**298 SELECTED TOPICS IN PARALEGAL STUDIES 1-4 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours

Selected topics in Paralegal Studies not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN PARALEGAL STUDIES 1-4 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours

Selected topics in Paralegal Studies not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

**PERSONAL DEVELOPMENT–COUNSELING****101 INTRODUCTION TO COLLEGE .5-1 UNIT**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 .5 - 1 hour lecture

Designed to acquaint students with the college, its facilities, services, academic regulations and degree and transfer programs. Students will receive guidance in educational planning. **Credit/No-Credit only. Non-associate degree applicable.**

**124 LIFELONG SUCCESS 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Apply physiological, social and psychological principles to success in college, the world of work and life. Explore personality, interests and values to increase self-understanding and select an appropriate major and career. Learn about careers of the future. Discover strategies for lifelong learning by identifying your learning style and applying psychological principles of learning and memory to academic study strategies. Apply life management techniques such as time and money management to accomplish personal goals. Examine adult stages of development and develop a plan for wellness and living a long and healthy life. Learn strategies for motivation and stress management. Practice creative and critical thinking techniques. *Maximum of 3 units can be earned for taking PDC 124 and 120.*

**CSU, CSU GE, UC**

**126 ORIENTATION TO COLLEGE: RE-ENTRY STUDENTS 2 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture

Discussion group to help returning older students adjust to college, meet other mature students with similar interests and concerns, and to help them look ahead to changes in their lives. Films, guest speakers, visits to the Career Center and Learning Resource Center, and important information about the catalog and class schedule, as well as graduation and transfer information are included.

**CSU**

**130 STUDY SKILLS AND TIME MANAGEMENT 1 UNIT**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture

This course is designed to prepare students to adjust to the academic community by learning to plan and study effectively within given time limitations. Strategies include: time management, goal setting, textbook mastery, library research skills, note-taking, exam preparation, stress reduction and educational planning. **Credit/No Credit only.**

**CSU**

**199 SPECIAL STUDIES OR PROJECTS  
IN PERSONAL DEVELOPMENT–  
COUNSELING 1-3 UNITS**

Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
3-9 hours

Individual study, research or projects in Personal Development–Counseling under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**298 SELECTED TOPICS IN PERSONAL  
DEVELOPMENT–COUNSELING 1-3 UNITS**

Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
1-9 hours

Selected topics in Personal Development–Counseling not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN PERSONAL  
DEVELOPMENT–COUNSELING 1-3 UNITS**

Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
1-9 hours

Selected topics in Personal Development–Counseling not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

CSU

## PERSONAL DEVELOPMENT– SPECIAL SERVICES

**080 EDUCATIONAL ASSESSMENT AND  
PRESCRIPTIVE PLANNING .5 UNIT**

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
.5 hour lecture

A course to assess, identify and interpret learning strengths and weaknesses for the purpose of determining eligibility for learning disability services according to the guidelines established by the California Community Colleges Chancellor's Office. An orientation to the Learning Disabilities Program will be provided as well as prescriptive planning. A pre and post conference will be held with a Disabled Students Programs and Services (DSPS) Specialist. **Credit/No Credit only. Non-associate degree applicable.**

**085 ADAPTED COMPUTER BASICS 1 UNIT**

Prerequisite: None  
Corequisite: None  
Recommended Preparation: Credit in ENGL 098R or equivalent  
.5 hour lecture, 1.5 hours laboratory

Individualized course of study for students with verifiable disabilities. Designed to acquaint students with basic assistive technology and techniques that may improve their ability to succeed in mainstream college-level courses and vocational programs. **Credit/No Credit only. Non-associate degree applicable.**

**087 ADAPTED COMPUTER STUDIES 1 UNIT**

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
1 hour lecture, 1 hour laboratory

An individualized course of study for students with verifiable disabilities. This course provides the student with in depth, individualized instruction in assistive technology and techniques that are intended to maximize independent use of assistive and mainstream computer hardware and software to improve the student's ability to succeed in mainstream college-level courses and vocational programs. *May be repeated for a maximum of 4 units.* **Credit/No Credit only. Non-associate degree applicable.**

**090 LEARNING STRATEGIES PRACTICUM 1 UNIT**

**ABCD** Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
1 hour lecture

Designed for students with specialized learning needs. Involves development and implementation of specific learning strategies in a developmental learning environment to assist students' academic performance. **Credit/No Credit only. Non-associate degree applicable.**

**096 COGNITIVE COMMUNICATION SKILLS  
AND STRATEGIES 1 UNIT**

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
1 hour lecture

Students with cognitive communication deficits will receive specialized instruction in attention/concentration, thought organization, memory strategies, social pragmatics skills, organization and time management skills, and maximizing related communication skills. The course emphasizes the development of skills and functional compensatory strategies to enhance disabled students' opportunities for academic success. *May be repeated for a maximum of 4 units.* **Credit/No Credit only. Non-associate degree applicable.**

**098 DEVELOPMENTAL SPELLING,  
LEVEL I 1 UNIT**

Prerequisite: None  
Corequisite: None  
Recommended Preparation: None  
1 hour lecture

Structured, sequential approach to spelling in a developmental learning environment designed to strengthen skill in spelling for students with specialized learning needs. **Credit/No Credit only. Non-associate degree applicable.**

- 198 SUPERVISED TUTORING** **0 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 TBA hours  
 Uses a variety of educational tools to assist students with various learning needs. Can be used to strengthen prerequisite skills prior to enrolling in a specific course or to receive supplemental assistance while concurrently enrolled in another course. *May be repeated with different content. No fee/no credit course.*
- 199 SPECIAL STUDIES OR PROJECTS IN PERSONAL DEVELOPMENT–SPECIAL SERVICES** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Personal Development–Special Services under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 298 SELECTED TOPICS IN PERSONAL DEVELOPMENT–SPECIAL SERVICES** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Personal Development–Special Services not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN PERSONAL DEVELOPMENT–SPECIAL SERVICES** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Personal Development–Special Services not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

## PHILOSOPHY

- 110 A GENERAL INTRODUCTION TO PHILOSOPHY** **3 UNITS**  
**(CAN PHIL 2)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 In this basic orientation the student explores, compares, analyzes, evaluates and discusses a variety of the principle questions addressed in philosophy. Typical questions examined are: What is the purpose of my existence? Can I know anything with certainty? Do I really have a free will? Can we prove that God exists? Why should I be moral? Whose self-interest counts?, etc. Issues covered will encompass relevant philosophical perspectives from Western and other major world cultures, and include contributions of women and minority cultures to the realm of philosophy.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 115 HISTORY OF PHILOSOPHY I** **3 UNIT**  
**(CAN PHIL 8)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Survey of ancient philosophy with emphasis on the development of philosophy from the Pre-Socratics through Aristotle, Hellenistic, Roman and medieval thinkers.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 117 HISTORY OF PHILOSOPHY II** **3 UNITS**  
**(CAN PHIL 10)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Survey of philosophy from the Renaissance to the 20th Century including the development of modern scientific processes as well as empiricism, rationalism, idealism, etc.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 125 CRITICAL THINKING** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introduction to critical thinking with emphasis on analyzing and constructing both inductive and deductive arguments. Critical reasoning will be applied to a variety of situations such as making sound decisions, evaluating claims and assertions, avoiding fallacious reasoning, etc.  
**AA/AS GE, CSU, CSU GE, UC**
- 130 LOGIC** **3 UNITS**  
**(CAN PHIL 6)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Study of correct thinking comprising both deductive and inductive inference and principles of scientific method. Application of fundamental principles of logic to practical problems.  
**AA/AS GE, CSU, CSU GE, UC**

**140 PROBLEMS IN ETHICS 3 UNITS****(CAN PHIL 4)**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Study of values as they affect the individual and society. Conduct as expressed by ethical standards and natural law, problems and theories of beauty and value.

**AA/AS GE, CSU, CSU GE, IGETC, UC****160 AMERICAN PHILOSOPHY 3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Study of the main traditions of American philosophical thought with emphasis on the philosophers, their works and systems of philosophy peculiar to the United States. Includes American philosophy from the earliest time to the present.

**AA/AS GE, CSU, CSU GE, IGETC, UC****199 SPECIAL STUDIES OR PROJECTS IN PHILOSOPHY 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

3-9 hours

Individual study, research or projects in Philosophy under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**298 SELECTED TOPICS IN PHILOSOPHY 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-9 hours

Selected topics in Philosophy not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN PHILOSOPHY 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-9 hours

Selected topics in Philosophy not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU****PHYSICAL SCIENCE****110 INTRODUCTION TO THE PHYSICAL SCIENCES 3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Broad approach to the physical sciences designed primarily for students not majoring in science. Main concepts of astronomy, physics, chemistry and earth sciences will be developed and discussed. Emphasis on the understanding of certain fundamental principles and their relationships and not on mathematical problem solving. The applicability of some of these concepts to contemporary problems (e.g., nuclear energy, environmental problems) will be covered. Within this context, the methods and limitations of science will be demonstrated and the implications of science for society in the past, present and future will be discussed.

**CSU, CSU GE, IGETC, UC credit limit****111 PHYSICAL SCIENCE LABORATORY 1 UNIT**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours laboratory

Laboratory exercises concerning physics, chemistry, geology and astronomy. Emphasis on discovery, measurement and observation.

**CSU, CSU GE, IGETC, UC****199 SPECIAL STUDIES OR PROJECTS IN PHYSICAL SCIENCE 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

3-9 hours

Individual study, research or projects in Physical Science under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**298 SELECTED TOPICS IN PHYSICAL SCIENCE 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-9 hours

Selected topics in Physical Science not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN PHYSICAL SCIENCE 1-3 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-9 hours

Selected topics in Physical Science not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

# PHYSICS

## 110 INTRODUCTORY PHYSICS 4 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture, 3 hours laboratory

Simple treatment of basic physics principles and phenomena with emphasis on relating them to events and processes of everyday living. Study of the description and cause of various kinds of motion, conservation laws, hot and cold bodies with heat exchange, sound in music and hearing, light and color perception, electricity and some of its practical uses, observation of atomic particles from radiation sources, and other subjects. There is no math prerequisite; the main emphasis is on understanding the concepts rather than doing many mathematical manipulations.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

## 120 GENERAL PHYSICS 4 UNITS

(CAN PHYS 2; CAN PHYS SEQ A = PHYC 120+121)

Prerequisite: MATH 170 or equivalent

Corequisite: None

Recommended Preparation: None

3 hours lecture, 3 hours laboratory

Problem solving as well as philosophical approach to physical phenomena such as force, linear and rotational motion and energy, simple harmonic motion and wave behavior, heat and thermodynamics. Laboratory experience is an integral part of this course. *Not appropriate for students whose majors require PHYC 190.*

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

## 121 GENERAL PHYSICS 4 UNITS

(CAN PHYS 4; CAN PHYS SEQ A = PHYC 120+121)

Prerequisite: PHYC 120

Corequisite: None

Recommended Preparation: None

3 hours lecture, 3 hours laboratory

Continuation of general physics involving the study of electricity, magnetism, light and optical instruments, quantum behavior, atomic and nuclear physics, and radioactivity.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

## 130 FUNDAMENTALS OF PHYSICS 4 UNITS

Prerequisite: MATH 178 or 180 with a grade of "C" or better or "CR" or concurrent enrollment

Corequisite: None

Recommended Preparation: None

3 hours lecture, 3 hours laboratory

This course is a calculus-based problem solving as well as a philosophical approach to physical phenomena such as force, linear and rotational motion and energy, simple harmonic motion and wave behavior, heat and thermodynamics. Laboratory experience is an integral part of the course.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

## 131 FUNDAMENTALS OF PHYSICS 4 UNITS

Prerequisite: PHYC 130 with a grade of "C" or better or "CR"

Corequisite: None

Recommended Preparation: None

3 hours lecture, 3 hours laboratory

This course is a calculus-based problem solving as well as a philosophical approach to physical phenomena such as electricity, magnetism, optics and modern physics. Laboratory experience is an integral part of the course.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

## 190 MECHANICS AND HEAT 5 UNITS

(CAN PHYS 8; CAN PHYS SEQ B = PHYC 190+200+210)

Prerequisite: MATH 180 or concurrent enrollment

Corequisite: None

Recommended Preparation: None

4 hours lecture, 3 hours laboratory

Deals with linear and rotational kinematics and dynamics, equilibrium, work, energy, momentum, gravitation, simple harmonic motion, thermal properties of matter and thermodynamics.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

## 199 SPECIAL STUDIES OR PROJECTS IN PHYSICS 1-3 UNITS

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

3-9 hours

Individual study, research or projects in Physics under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

## 200 ELECTRICITY AND MAGNETISM 5 UNITS

(CAN PHYS 12; CAN PHYS SEQ B = PHYC 190+200+210)

Prerequisite: PHYC 190 or equivalent and credit for or concurrent enrollment in MATH 280

Corequisite: None

Recommended Preparation: None

4 hours lecture, 3 hours laboratory

Deals with the electric and magnetic behavior of matter. Primary emphasis on Maxwell's Equations and their applications.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

## 210 WAVE MOTION AND MODERN PHYSICS 5 UNITS

(CAN PHYS 14; CAN PHYS SEQ B = PHYC 190+200+210)

Prerequisite: PHYC 190 or equivalent and credit for or concurrent enrollment in MATH 281

Corequisite: None

Recommended Preparation: None

4 hours lecture, 3 hours laboratory

Deals with hydrostatics, hydrodynamics, wave behavior, geometric and physical optics, relativity, light as a particle, matter as a wave, the hydrogen atom and the Schrodinger Equation, electrical conductivity of solids, lasers and nuclear physics.

**AA/AS GE, CSU, CSU GE, IGETC, UC credit limit**

**298 SELECTED TOPICS IN PHYSICS 1-5 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-15 hours

Selected topics in Physics not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN PHYSICS 1-5 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-15 hours

Selected topics in Physics not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

## POLITICAL SCIENCE

**120 INTRODUCTION TO POLITICS AND POLITICAL ANALYSIS 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

The primary aim of this course is to assist the student/citizen in the development of a set of skills which can be helpful in analyzing political situations in the world today. In order to accomplish this objective, students will be introduced to the basic approaches, perspectives, techniques and models of the political scientist. Accordingly, this course covers some universal aspects of political stability and change, ideologies, conflicts, institutions, political economy and issues.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**121\* INTRODUCTION TO U.S. GOVERNMENT AND POLITICS (CAN GOVT 2) 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

This course analyzes the evolution of the structures and functions of the U.S. and California political systems from the time of the nation's founding to the current day in what is now the United States. Emphasizes the continuity and uniqueness of the American political experience and how that experience has derived from other political cultures. This will be examined in the context of the larger cultural, economic, and sociological forces shaping the U.S. political system. Attention will also be given to significant events affecting the evolution of the U.S. political system since its founding. The development and evolution of the U.S. Constitution and policy making role of traditional political institutions such as the presidency, the Congress, and the judiciary will be explored. The impact of other political forces such as mass movements, the media, the bureaucracy, interest

groups and ethnic and social groups will also be examined. Topics will be illustrated through reference to actual political events occurring as the course progresses.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**124 INTRODUCTION TO COMPARATIVE GOVERNMENT AND POLITICS 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Analyze the political systems of selected developed, transitional and developing countries of the world in order to understand the importance of political development, political institutions, political culture, political actors, political processes, and political change for the dynamics of today's global society.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**130 INTRODUCTION TO INTERNATIONAL RELATIONS 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Survey of the field of international relations. Students will be introduced to the major theories of international relations and will learn to apply them to contemporary problems in world politics. Issues examined include global peace and security, international political economy, international law and organization, sustainable development, and human rights.

**CSU, CSU GE, IGETC, UC**

**140\* INTRODUCTION TO CALIFORNIA GOVERNMENTS AND POLITICS 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

This course examines the structure and functions of California state and local governments and politics. Attention will be given to the evolution of the principal features, organization, and operation of state and local governments within the framework of U.S. federalism from the time of the nation's founding. Emphasis is placed on the role of significant events, major ethnic groups, and major social groups in the development of the political structures and processes of California state and local governments and contemporary political issues.

**AA/AS GE, CSU, CSU GE**

**199 SPECIAL STUDIES OR PROJECTS IN POLITICAL SCIENCE 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours

Individual study, research or projects in Political Science under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**298 SELECTED TOPICS IN POLITICAL SCIENCE** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Political Science not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN POLITICAL SCIENCE** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Political Science not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

\*Meets part of the American Institutions requirement for 2005-2006. See "CSU General Education Breadth" under Transfer Information and Degree Requirements for complete requirements and different options.

## PSYCHOLOGY

**120 INTRODUCTORY PSYCHOLOGY** **3 UNITS**  
**(CAN PSY 2)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introduction to the facts and theories which seek to explain and understand human thought and behavior including such topics as personality, psychotherapy, learning, memory, interpersonal relationships, adjustment and biological influences.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

**125 CROSS-CULTURAL PSYCHOLOGY** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introduction to theories and research findings regarding cultural influences on human behavior and cognitive processes (lifespan development, abnormal behavior and mental health, drug use, self-concept, emotion, gender schemas and gender roles, social behavior, perception, learning, intelligence and memory). By providing students with a non-judgmental understanding of how culture influences human behavior, this course will make them more equipped to interact in a world where there is increasing contact among different cultures.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

**134 HUMAN SEXUALITY** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Review of the biological, psychological and social aspects of human sexuality including sexuality throughout the lifespan, individual and cultural variations, homosexuality, communication and relationships, sex therapy, sex roles, morality, contraception and STDs.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

**138 SOCIAL PSYCHOLOGY** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Examination of the individual's perception of and reaction to other people and social influences. Topics such as attitude formation, prejudice and discrimination, helping behavior, aggression, conformity, obedience, cooperation and conflict reduction, and group behavior are explored.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

**140 PHYSIOLOGICAL PSYCHOLOGY** **3 UNITS**  
**(CAN PSY 10)**  
 Prerequisite: PSY 120 or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Examination of the relationships between bodily processes and aspects of behavior. Review of fundamental research methods and major research findings in physiological psychology. Application of experimental methods in psychology, physiology and related disciplines to the understanding of perceptual processes, the control of movement, sleep and waking, reproductive behaviors, ingestive behaviors, emotion, learning, language and mental disorders are explored.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

**165 DEVELOPMENTAL PSYCHOLOGY** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Overview of psychological research and theory involving the lifespan approach to human behavior and cognition. Explores the biological, emotional, social and cognitive development from infancy through childhood, adolescence and adulthood. Topics include influences of drugs and disease on prenatal development, child-rearing methods, temperaments and personality, childhood disorders, development of language and thinking, gender roles, friendship, family and relationships, parenting and aging.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

**170 ABNORMAL PSYCHOLOGY 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

An overview of psychological research and theory involving the causes and treatment of abnormal behavior. The major disorders include anxiety disorders (such as phobias, panic attacks, obsessive-compulsive), mood disorders (such as depression and bipolar), schizophrenic disorders, and personality disorders. Also included are the child/adolescence disorders (such as ADHD and eating disorders), substance abuse, mental retardation, sexual disorders, and the effects of stress on the body.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**199 SPECIAL STUDIES OR PROJECTS IN PSYCHOLOGY 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours

Individual study, research or projects in Psychology under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**215 STATISTICS FOR THE BEHAVIORAL SCIENCES (CAN PSY 6) 3 UNITS**

Prerequisite: MATH 103 or 110 with a grade of "C" or better or equivalent  
 Corequisite: None  
 Recommended Preparation: None  
 2 hours lecture, 3 hours laboratory

Methods and experience in defining and solving quantitative problems in the behavioral sciences. Emphasis on the design of experiments and the application of a variety of parametric and nonparametric techniques to the analysis of data.

**AA/AS GE, CSU, CSU GE, UC credit limit**

**220 LEARNING 3 UNITS**

Prerequisite: PSY 120  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Examination of the basic principles and research in animal and human learning.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**298 SELECTED TOPICS IN PSYCHOLOGY 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Psychology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN PSYCHOLOGY 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours

Selected topics in Psychology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

**CSU**

**REAL ESTATE****125 ESCROW PROCEDURES I 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Methods and techniques of escrow procedures for real estate transactions and legal and ethical responsibilities. Topics include types of escrows, document preparation, terminology, phraseology, title and escrow procedures, adjustment of taxes, rents and charges.

**CSU**

**126 ESCROW PROCEDURES II 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Study of exchanges, loans, escrow sales of trust, deeds and notes, consummation of land contracts and leasehold escrows.

**CSU**

**127 ESCROW PROCEDURES III 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Escrows relating to condominiums, shopping centers, subdivided land, bulk sales, liquor licenses and other miscellaneous escrow transactions. Actual case problems are presented for evaluation and discussion including compliance with conditions, agency relationships, wrongful delivery, conditional deposits, liability and assignments.

**CSU**

**190 REAL ESTATE PRINCIPLES 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Fundamental real estate course covering the basic laws and principles of California real estate. Provides understanding, background and terminology necessary for advanced study in specialized courses. Of assistance to those preparing for the real estate license examinations.

**CSU**

- 191 REAL ESTATE PRACTICE 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Day-to-day operation in real estate roles and brokerage including listing, prospecting, advertising, financing, sales techniques, escrow and ethics.  
**CSU**
- 192 REAL ESTATE FINANCE 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Analysis of real estate financing including lending policies and problems in financing transactions in residential, apartment, commercial and special purpose properties. Methods of financing properties are emphasized.  
**CSU**
- 193 REAL ESTATE LEGAL ASPECTS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Study of the law governing real property, its sale, lease or other conveyance. Instruments utilized in conveyance or lease of such property will be examined and drafted.  
**CSU**
- 194 REAL ESTATE APPRAISAL 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introductory course covering the purposes of appraisals, the appraisal process, and the different approaches, methods and techniques used to determine the value of various types of property. Emphasis on residential and single-unit property.  
**CSU**
- 197 REAL ESTATE ECONOMICS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Study of economic factors which determine the market and location of real property investments.  
**CSU**
- 199 SPECIAL STUDIES OR PROJECTS IN REAL ESTATE 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Real Estate under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 201 REAL ESTATE PROPERTY MANAGEMENT 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Study of property management and problem areas associated with operating income-producing property.  
**CSU**
- 202 BUSINESS OPPORTUNITIES SALES 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Overview of the sale and transfer of a business from the perspective of a real estate licensee handling its listing and sale.  
**CSU**
- 204 REAL ESTATE OFFICE ADMINISTRATION 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Study of administration, supervision and management of a real estate brokerage office. *Not open to students with credit in RE 198.*  
**CSU**
- 230 COMMERCIAL REAL ESTATE 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introduction to the principles and procedures applicable to the leasing, management and operations of commercial and investment real estate properties. Discussion of computerized property management techniques, procedures and tax and accounting methods applicable to commercial real estate properties.  
**CSU**
- 250 REAL ESTATE INTERNSHIP 1-4 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 75 hours paid or 60 hours unpaid work experience per unit  
 Practical work experience in the real estate industry. *May be repeated for a maximum of 12 units.*  
**CSU**
- 290 REAL ESTATE LICENSE TRAINING 1 UNIT**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1 hour lecture  
 Preparation for the California Department of Real Estate Salesperson's or Broker's examination.  
**CSU**

**292 MORTGAGE LOAN BROKERING AND LENDING 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Study of the practices and procedures involved in advanced real estate finance including secondary money market sources, federal loan qualification requirements, and special problems in current residential and commercial real estate financing.

**CSU**

**294 ADVANCED REAL ESTATE APPRAISAL 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Study of the practices and procedures involved in advanced real estate appraising including the analysis of income and commercial properties.

**CSU**

**298 SELECTED TOPICS IN REAL ESTATE 1-4 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours

Selected topics in Real Estate not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN REAL ESTATE 1-4 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours

Selected topics in Real Estate not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

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**120 WORLD RELIGIONS 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Introduction to the teachings, major figures, attitudes and practices of world religions.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**130 SCRIPTURES OF WORLD RELIGIONS 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Problems in the study of religions based on the study of scripture selected from Eastern and Western religions.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**140 RELIGION AND CULTURE 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Study of the various ways in which religious thought and belief are incorporated into the cultural expression of societies. Specific emphasis given to understanding religion through its expression in art, music, literature and philosophy.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**150 SCRIPTURES OF INDIA AND CHINA 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Study of the religious and philosophical modes of thought and ways of life in the Orient.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**199 SPECIAL STUDIES OR PROJECTS IN RELIGIOUS STUDIES 1-3 UNITS**

Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours

Individual study, research or projects in Religious Studies under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

**200 SCIENCE AND RELIGION 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Study of science and religion as two unique aspects of humanity's singular search for personal meaning and the harnessing of natural forces, both of which significantly affect humanity's self-definition and positioning in the cosmic order.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

**RELIGIOUS STUDIES****100 INTRODUCTION TO RELIGION 3 UNITS**

Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture

Introductory course in the origins and features of religion as a unifying point in the social ordering of the world and its individual cultures.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

- 210 INTRODUCTION TO THE HEBREW SCRIPTURES** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introductory survey of the contents, themes, literary genres, canons, historical background, and modern critical methods for analysis and interpretation of the Hebrew scriptures.  
**AA/AS GE, CSU, UC**
- 215 INTRODUCTION TO THE NEW TESTAMENT** **3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Introduction to the history and culture of the New Testament period, the methods of critical analysis of Biblical materials, and the content of the New Testament.  
**AA/AS GE, CSU, UC**
- 298 SELECTED TOPICS IN RELIGIOUS STUDIES** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Religious Studies not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN RELIGIOUS STUDIES** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Religious Studies not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**
- 125 MARRIAGE, FAMILY AND ALTERNATIVE LIFESTYLES** **3 UNITS**  
**(CAN FCS 12)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Survey of American courtship, marriage and family behavior with primary emphasis on understanding factors conducive to successful marital and family relationships. Some consideration is given to historical background, minority family types and cross-cultural comparisons.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 130 CONTEMPORARY SOCIAL PROBLEMS** **3 UNITS**  
**(CAN SOC 4)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Identification and analysis of contemporary American social problems. Criteria are established whereby students can better judge the effectiveness of various plans for social betterment.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 199 SPECIAL STUDIES OR PROJECTS IN SOCIOLOGY** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Sociology under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 298 SELECTED TOPICS IN SOCIOLOGY** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Sociology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN SOCIOLOGY** **1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Sociology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## SOCIOLOGY

- 120 INTRODUCTORY SOCIOLOGY** **3 UNITS**  
**(CAN SOC 2)**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Study of the nature of social life, the dynamics of human interaction, symbolic foundation of behavior, social organization and control, social change, and the tools of sociological investigation.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**

# SPANISH

## 120 SPANISH I 5 UNITS

(CAN SPAN 2; CAN SPAN SEQ A = SPAN 120+121)

Prerequisite: None

Corequisite: None

Recommended Preparation: None

5 hours lecture

Introductory course to the Spanish language and the cultures of its speakers. Designed for students with very little or no knowledge of Spanish. Facilitates the practical application of the language in everyday oral and written communication at the beginning level. Since the focus will be on basic communication skills, the class will be conducted in Spanish as much as possible. Students will learn structures that will enable them to function in Spanish in everyday contexts while becoming familiar with the Spanish speaking world.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

## 120A SPANISH I 2.5 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: None

2.5 hours lecture

Equivalent to the first half of SPAN 120. Allows more time for the student who has not studied the Spanish language. Introduces students to the Spanish language and the cultures of its speakers. Facilitates the practical application of the language in everyday oral and written communication at the introductory beginning novice level. Since the focus will be on basic communication skills, the class will be conducted in Spanish as much as possible. While becoming familiar with the Spanish speaking world, students will be introduced to structures that will enable them to begin to function in Spanish in everyday contexts. *Must be taken with SPAN 120B in order to meet the General Education requirement. If taken in conjunction with SPAN 120, the cumulative number of units which may be earned is 5 units.*

**AA/AS GE, CSU, CSU GE, UC credit limit**

## 120B SPANISH I 2.5 UNITS

Prerequisite: SPAN 120A

Corequisite: None

Recommended Preparation: None

2.5 hours lecture

Equivalent to the second half of SPAN 120 and the continuation of SPAN 120A. Continues to introduce students to the Spanish language and the cultures of its speakers. Continues to facilitate the practical application of the language in everyday oral and written communication at the beginning novice level. Since the focus will be on basic communication skills, the class will be conducted in Spanish as much as possible. While becoming familiar with the Spanish speaking world, students will continue to acquire structures that will enable them to function in Spanish in everyday situations. *Must be taken with SPAN 120A in order to meet the General Education requirement. If taken in conjunction with SPAN 120, the cumulative number of units which may be earned is 5 units.*

**AA/AS GE, CSU, CSU GE, UC credit limit**

## 121 SPANISH II 5 UNITS

(CAN SPAN 4; CAN SPAN SEQ A = SPAN 120+121)

Prerequisite: SPAN 120 with a grade of "C" or better or "CR" or two years of high school Spanish or equivalent

Corequisite: None

Recommended Preparation: None

5 hours lecture

Continuation of SPAN 120. The course will continue to develop oral and written skills based on practical everyday needs.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

## 135 SPANISH FOR PROFESSIONAL PERSONNEL I 3 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Practical essentials of conversing in Spanish for persons engaged in some professional fields such as health or business. **Credit/No Credit only.**

**CSU**

## 141 SPANISH AND LATIN AMERICAN CULTURES 3 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Survey of major characteristics of Spanish, Latin American and Chicano cultures as reflected in literature, the arts, philosophy and folklore.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

## 145 HISPANIC CIVILIZATIONS 3 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

General overview of the cultures of Spain and Latin America while directly providing an opportunity to explore the cultural richness of the Hispanic world through a particular country. May be offered as an on-site tour of a specific Hispanic country.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

## 199 SPECIAL STUDIES OR PROJECTS IN SPANISH 1-3 UNITS

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

3-9 hours

Individual study, research or projects in Spanish under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

## 220 SPANISH III 5 UNITS

(CAN SPAN 8; CAN SPAN SEQ B = SPAN 220+221)

Prerequisite: SPAN 121 with a grade of "C" or better or "CR" or three years of high school Spanish or equivalent

Corequisite: None

Recommended Preparation: None

5 hours lecture

Continuation of SPAN 121. The course will continue to develop oral, listening, reading and writing skills in order to acquire proficiency in Spanish.

**AA/AS GE, CSU, CSU GE, IGETC, UC**

- 221 SPANISH IV 5 UNITS**  
(*CAN SPAN 10; CAN SPAN SEQ B = SPAN 220+221*)  
Prerequisite: SPAN 220 with a grade of "C" or better or "CR" or four years of high school Spanish or equivalent  
Corequisite: None  
Recommended Preparation: None  
5 hours lecture  
Continuation of SPAN 220. The course will continue to develop oral, listening, reading and writing skills in order to improve proficiency in Spanish.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 250 CONVERSATIONAL SPANISH 3 UNITS**  
Prerequisite: SPAN 121 or four years of high school Spanish or equivalent  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture  
Continues to develop oral, reading, writing and listening skills but with an emphasis on oral proficiency.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 251 CONVERSATIONAL SPANISH 3 UNITS**  
Prerequisite: SPAN 250 or 121 or four years of high school Spanish or equivalent  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture  
Continues to develop oral, reading, writing and listening skills but with an emphasis on oral proficiency.  
**AA/AS GE, CSU, CSU GE, IGETC, UC**
- 298 SELECTED TOPICS IN SPANISH 1-5 UNITS**  
Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
1-15 hours  
Selected topics in Spanish not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN SPANISH 1-5 UNITS**  
Prerequisite: Varies with topic  
Corequisite: Varies with topic  
Recommended Preparation: Varies with topic  
1-15 hours  
Selected topics in Spanish not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## SURVEYING

### SURVEYING (ENGINEERING) COURSES

- 218 PLANE SURVEYING 4 UNITS**  
(*CAN ENGR 10*)  
Prerequisite: MATH 170 or concurrent enrollment  
Corequisite: None  
Recommended Preparation: None  
2 hours lecture, 6 hours laboratory  
Use, care and adjustment of surveying instruments. Fundamental surveying methods, traverse measurements and area computations. Introduction to horizontal and vertical curves, stadia, construction layout. Introduction to topographic mapping. Earth work computations. *Listed as ENGR 218.*  
**CSU, UC**
- 240 ADVANCED SURVEYING 4 UNITS**  
Prerequisite: ENGR 218  
Corequisite: None  
Recommended Preparation: None  
3 hours lecture, 3 hours laboratory  
Topographic, hydrographic and geodetic surveying. Precise equipment and control surveying, city and land surveys. Astronomical observations. State plane coordinates system. Route location and layout, transition, horizontal and vertical curves. Introduction to electronic and photogrammetric methods. U.S. Public Land Surveys and legal descriptions, and an introduction to Global Positioning Systems (G.P.S.). *Listed as ENGR 240.*  
**CSU, UC**

## THEATRE ARTS

### 110 INTRODUCTION TO THEATRE 3 UNITS

#### (CAN DRAMA 18)

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Designed to give students the analytic tools of theatre to provide a working knowledge of all areas included in the process of producing a play. Through lectures, attendance at selected performances and in-class projects, students will be introduced to theatre arts as it reflects the synthesis of the arts and a definition of the humanities in Western Civilization. Recommended for students interested in theatre who want to have a better understanding of how this art form continues to help shape society.

AA/AS GE, CSU, GE, IGETC, UC

### 199 SPECIAL STUDIES OR PROJECTS IN THEATRE ARTS 1-3 UNITS

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

3-9 hours

Individual study, research or projects in Theatre Arts under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*

### 298 SELECTED TOPICS IN THEATRE ARTS 1-3 UNITS

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-9 hours

Selected topics in Theatre Arts not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

### 299 SELECTED TOPICS IN THEATRE ARTS 1-3 UNITS

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-9 hours

Selected topics in Theatre Arts not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

CSU

## WATER/WASTEWATER TECHNOLOGY

### 101 FUNDAMENTALS OF WATER/WASTEWATER TECHNOLOGY 3 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Designed to give students a broad overview of the water and wastewater fields and issues confronting the industry. Students will learn how source waters are obtained, treated and distributed and how wastewater is collected, transported and disposed of in the area. Contemporary issues facing the water and wastewater industry will also be explored.

### 102 CALCULATIONS IN WATER/WASTEWATER TECHNOLOGY 3 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Study of the mathematical principles in solving problems related to treatment systems including hydraulic volumes, dimensional analysis, primary and secondary sewage treatment, calculations and chemical dose rates as it relates to water/wastewater technology.

### 104 APPLIED HYDRAULICS 3 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Study of the hydraulics necessary in the operation of water and maintenance plants and systems. Consideration of the types of pumps used in water/wastewater service, their operational characteristics and maintenance, and the problems common to their use.

### 106 INTRODUCTION TO ELECTRICAL AND INSTRUMENTATION PROCESSES 3 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Introductory course in basic electron theory and electrical principles. Electrical safety precautions, component identification, schematic interpretation, motors, transformers, relays and test equipment will be studied. Automated process control devices and an overview of current technologies will be discussed.

### 110 LABORATORY ANALYSIS FOR WATER/WASTEWATER 3 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Examines basic fundamentals of laboratory analysis with emphasis on applied chemical and microbiological procedures for water and wastewater plant operators. Includes procedures and techniques used in physical, chemical, bacteriological and biological examination of water/wastewater.

- 112 BASIC PLANT OPERATIONS: WATER TREATMENT 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to study sources of water, public health aspects of water supply, chemical, physical and bacteriological standards of water quality, types of water treatment plants, water treatment procedures, operation, maintenance, storage and distribution.
- 114 BASIC PLANT OPERATIONS: WASTEWATER TREATMENT 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to familiarize students with wastewater collection systems and essential safety procedures necessary to their operation, including preliminary and primary treatment processes and maintenance of a wastewater treatment plant.
- 117 ADVANCED PLANT OPERATIONS: WATER TREATMENT 3 UNITS**  
 Prerequisite: WWTR 112  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to study water quality control and treatment. Aspects of public health as it relates to the water supply will be highlighted. Sources of contamination and methods of control will be emphasized as well as maintenance of water treatment facilities with safety cost and environmental factors stressed.
- 120 ADVANCED PLANT OPERATIONS: WASTEWATER TREATMENT 3 UNITS**  
 Prerequisite: WWTR 114  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to familiarize students with wastewater collection systems, treatment process units, equipment and facilities operation and maintenance, application of laboratory results to process control, and essential safety procedures necessary for operation and maintenance of wastewater facilities.
- 130 WATER DISTRIBUTION SYSTEMS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to enable students to understand the operation and maintenance of a waterworks distribution system. Part of a series required for eligibility to take State certification examinations; supports certification examinations for grade levels D1 and D2.
- 132 WASTEWATER COLLECTION SYSTEMS 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to familiarize students with the components of wastewater collection systems. Overview of design installation, operation, monitoring, maintenance and repair of sewer pipelines, pump stations and related facilities.
- 134 MECHANICAL MAINTENANCE 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed to familiarize students with the basic principles of mechanical equipment design, installation, operation, maintenance, repair, overhaul and replacement. Emphasis on understanding the value of preventative maintenance techniques such as equipment monitoring, lubrication analysis, machine alignment and scheduled overhaul.
- 199 SPECIAL STUDIES OR PROJECTS IN WATER/WASTEWATER TECHNOLOGY 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Water/Wastewater Technology under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 265 WATER DISTRIBUTION SYSTEMS II 3 UNITS**  
 Prerequisite: WWTR 130  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Designed as the second of an integrated sequence of courses covering water distribution systems. Enables students to gain a more comprehensive understanding of the operation and maintenance of a waterworks distribution system including advanced calculations, management, safety and emergency response issues. Contemporary issues facing the water and wastewater industry will also be explored in depth. Part of a series required for eligibility to take State certification examinations; supports certification examinations for grade levels D3, D4 and D5.
- 267 WASTEWATER COLLECTION SYSTEMS II 3 UNITS**  
 Prerequisite: WWTR 132  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 This course is designed to provide an in-depth understanding of the components of wastewater collection systems. Includes the design, operation, monitoring, maintenance and repair of pump stations as well as equipment maintenance, safety/survival systems, administration and organization principles.
- 270 PUBLIC WORKS SUPERVISION 3 UNITS**  
 Prerequisite: WWTR 101  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 An introductory course into the principles and practices of modern supervision and management, with emphasis on contemporary issues facing supervisors and managers in the water utilities industry.

- 280 BACKFLOW TESTER TRAINING 2 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 1.5 hours lecture, 1.5 hours laboratory  
 Prepares students for the American Water Works Association (AWWA) and the American Backflow Prevention Association (ABPA) certification for Backflow Prevention Assembly Tester Certification. Includes backflow device installation and testing procedures required for the certification testing.  
**CSU**
- 282 CROSS CONNECTION CONTROL SPECIALIST 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Study of the administrative and technical procedures required for a cross connection program including system inspections, hazard evaluation, identification of cross connection problems and backflow prevention devices, shut-down tests and reclaimed water systems.  
**CSU**
- 284 CROSS CONNECTION CONTROL SPECIALIST-RECYCLED WATER 3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 3 hours lecture  
 Study of the administrative and technical procedures concerning the production, use and distribution of recycled water including backflow protection, legal, administrative and permitting issues, the treatment process, health and safety aspects, and the cross connection control (shut down) test as conducted in San Diego County. The course will consist of both classroom and demonstration sessions. Demonstration sessions consist of various aspects of cross connection control recycled water shut down testing.
- 290 COOPERATIVE WORK EXPERIENCE 1-4 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 5 hours paid or 4 hours unpaid work experience per week per unit  
 Practical application of principles and procedures learned in the classroom to the various phases of water and wastewater treatment, distribution or collection. Work experience will be paid or unpaid at appropriate curriculum-related work sites. Two on-campus sessions will be scheduled. *May be repeated for a maximum of 12 units.*
- 298 SELECTED TOPICS IN WATER/WASTEWATER TECHNOLOGY 1-4 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours  
 Selected topics in Water/Wastewater Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**

- 299 SELECTED TOPICS IN WATER/WASTEWATER TECHNOLOGY 1-4 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-12 hours  
 Selected topics in Water/Wastewater Technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.  
**CSU**

## WORK EXPERIENCE

- 110 GENERAL COOPERATIVE WORK EXPERIENCE EDUCATION 1-3 UNITS**  
 Prerequisite: None  
 Corequisite: None  
 Recommended Preparation: None  
 75 hours paid or 60 hours unpaid work experience per unit  
 Supervised work experience to assist students in acquiring desirable work habits, attitudes and career awareness. Jobs may or may not be directly related to students' educational goals. *May be repeated for a maximum of 6 units.*
- 199 SPECIAL STUDIES OR PROJECTS IN WORK EXPERIENCE 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 3-9 hours  
 Individual study, research or projects in Work Experience under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and the Office of Instruction. *May be repeated for a maximum of 9 units.*
- 298 SELECTED TOPICS IN WORK EXPERIENCE 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Work Experience not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format. **Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN WORK EXPERIENCE 1-3 UNITS**  
 Prerequisite: Varies with topic  
 Corequisite: Varies with topic  
 Recommended Preparation: Varies with topic  
 1-9 hours  
 Selected topics in Work Experience not covered by regular catalog offerings. Course content and unit credit to be determined by the Office of Instruction and faculty. May be offered in a seminar, lecture and/or laboratory format.

# NONCREDIT COURSES



## T'ai Chi Ch'uan

Mike Conniry, Instructor

This ancient Chinese exercise form consists of a series of classical martial art postures which gracefully flow together in slow motion. It emphasizes mental tranquility, inner awareness, and relaxation.



## Beautiful Flower Photography

Capture the beauty of our local spring flora. This class is open to the beginning and novice photographer.

## Community Learning Noncredit Courses

The California Education code identifies adult noncredit programs as an essential and important function of the community colleges and establishes the following nine categories for state-supported noncredit courses:

- Parenting
- Elementary and Secondary Basic Skills
- English as a Second Language
- Citizenship for Immigrants
- Substantial Disabilities
- Short Term Vocational
- Older Adults
- Home Economics
- Health and Safety

Noncredit courses provide remedial, developmental, occupational and other general educational opportunities critical for survival in today's society.

See "PREVIEW" for course listings.

(619) 660-4350 or visit us at [www.cuyamaca.edu/preview](http://www.cuyamaca.edu/preview)

## Horseback Riding

Enjoy learning how to ride a horse! You will learn safety, bridling, walk, trot, canter, trail riding, care and grooming.



## NONCREDIT COURSES

The California Education code identifies adult noncredit programs as an essential and important function of the community colleges and establishes the following nine categories for state-supported noncredit courses: Parenting, Elementary and Secondary Basic Skills, English as a Second Language, Citizenship for Immigrants, Substantial Disabilities, Short Term Vocational, Older Adults, Home Economics, and Health and Safety.

The Community Learning noncredit program fulfills the mandate that California Community Colleges provide noncredit courses designed to meet the special needs and capabilities of those students who do not desire or need to obtain unit credit. Noncredit courses provide remedial, developmental, occupational and other general educational opportunities critical for survival in today's society. Noncredit education is an integral part of the district and college mission (GCCCD Board Policy 1200) providing life-long learning opportunities.

The classes and/or programs vary in length, are open to the public and offered throughout the district. All noncredit classes are state approved. (Cal. Code Regs., tit.5, §§ 55002(c)(1), 55150, and 58050 (a)(1).)

## ELEMENTARY & SECONDARY BASIC SKILLS (CEBS)

- 0001 SUPERVISED TUTORING 0 UNITS**  
1 - 72 hours laboratory  
As recommended by their instructors and course specific, students will register and engage in educational assistance with tutorial services.
- 0002 ACADEMIC & FINANCIAL AID PLANNING 0 UNITS**  
To increase the retention of low-income and/or income eligible federal/state financial aid recipients and assist students in meeting educational goals.
- 0027 MATH BASICS SERIES 0 UNITS**  
These short courses teach students novel ways to learn, retain, and use math. Topics vary but may include basic elements of arithmetic, geometry, or algebra.
- 0029 BASIC SKILLS FOR ACT/SAT 0 UNITS**  
A course to help students prepare for SAT and ACT standardized tests.
- 0039 CUYAMACA COLLEGE AT A GLANCE 0 UNITS**  
This course is designed to help a potential and new student succeed at Cuyamaca College.

## ENGLISH AS A SECOND LANGUAGE (CESL)

- 0008 SPELLING FOR NON-NATIVE ENGLISH SPEAKERS 0 UNITS**  
Emphasis on studying and learning strategies why words are spelled the way they are in the English language.
- 0010 ENGLISH AS A SECOND LANGUAGE 0 UNITS**  
This is a beginning to intermediate level course in basic English; emphasizing oral communication. Participants with higher level skills in English will receive instruction to improve ability in reading and writing.
- 0012 ESL/CITIZENSHIP 0 UNITS**  
Focuses on the development of communicative English skills and knowledge of American History and Government required for passing the test to become a citizen of the United States.
- 0046 ESL: COLLEGE READINESS 0 UNITS**  
This first course in English as a second language (ESL) will help students prepare to enter the college ESL program. Students will learn Basic English grammar and writing skills as well as an introduction to the college campus with a review of college expectations and services.
- 0047 BILINGUAL ESL WORKSKILLS: BEGINNING 0 UNITS**  
English for the workplace is designed for students whose first language is one other than English. This course supplements language skills taught in Beginning ESL and focuses on using English in business situations.
- 0048 BILINGUAL ESL WORKSKILLS: INTERMEDIATE 0 UNITS**  
This is the second course in the study of English for the workplace for students whose first language is other than English. This course supplements language skills taught in Intermediate ESL and develops business English skills taught in Beginning ESL.
- 0049 BILINGUAL WORKSKILLS: ADVANCED 0 UNITS**  
This course supplements language skills taught in Advance ESL and aids in developing business English skills.
- 0050 BILINGUAL ACADEMIC SUCCESS: BEGINNING 0 UNITS**  
A beginning course of English listening and speaking skills designed for students whose first language is other than English. The course is designed to improve listening comprehension as well as to increase fluency and accuracy in spoken English in both academic and vocational environments.
- 0053 ESL: MULTI-LEVEL 0 UNITS**  
This course develops and adds to the basic skills taught in Beginning, Intermediate and Advance ESL.
- 0054 ESL: TOEFL 0 UNITS**  
This course will help prepare students for the Test of English as a Foreign Language (TOEFL). The TOEFL is taken by students whose first language is not English.

**0056 ESL: SPECIAL POPULATIONS 0 UNITS**

This course on English reading, writing and grammar is designed for students whose first language is not English, whom have special needs. This course develops and adds to the basic skills taught in ESL.

**0057 ESL: INTERMEDIATE 0 UNITS**

The second core course on English reading, writing and grammar is designed for students whose first language is not English. This course further develops and adds to the basic skills taught in Beginning ESL.

**0058 ESL: ADVANCED 0 UNITS**

The third core course on English reading, writing and grammar is designed for students whose first language is not English. This course further develops and adds to the basic skills taught in Beginning and Intermediate ESL.

## HEALTH AND SAFETY (CEHS)

**0001 EXERCISE FOR OPTIMUM HEALTH 0 UNITS**

Course is designed to assist students in the development of a lifelong commitment to fitness and wellness with study of current health issues regarding nutrition, personal health decisions, improving physical well-being and self-awareness.

**0002 PHYSICAL FITNESS: HATHA YOGA 0 UNITS**

An introductory yoga course which combines static and dynamic posture and integrates this with physical exercise and mental discipline to achieve greater flexibility and strength, and for the reduction of stress to improve mental and physical health.

**0003 PHYSICAL FITNESS FOR OPTIMUM HEALTH 0 UNITS**

Explore and participate in exercises designed to increase movement and physical strength using the basic mechanics of endurance and flexibility.

**0004 HEALTH IN THE HOME 0 UNITS**

This introductory course is designed for students to learn about stress theory and physiology, and how social, gender, and ethnic backgrounds influence health.

**0005 TOTAL HEALTH FOR THE TOTAL PERSON 0 UNITS**

This course exposes the student to the concepts of total personal health. Specific topics emphasizing the whole person regarding wellness, physical, emotional, intellectual, spiritual and social health will be discussed.

**0008 ADULT/PEDIATRIC CPR COURSE 0 UNITS**

This course teaches individuals to recognize and respond to emergencies, adult/child/infant CPR, obstructed airway, blood borne pathogens, and the universal precautions with hands on practice with mannequins. Course includes a completion card valid for two years.

**0009 ADULT/PEDIATRIC CPR RENEWAL COURSE 0 UNITS**

This is a renewal course for individuals who possess a current CPR card; or a card not expired more than 30 days. Course will review adult/child/infant CPR, obstructed airway, blood borne pathogens and universal precautions. Course includes a completion card valid for two years.

**0010 FIRST AID COURSE 0 UNITS**

This course teaches individuals to identify and help control life threatening situations. The course will cover injury and illness assessment, signs and symptoms, and treatment for the following: allergic reaction, amputations, bleeding, cuts, burns, cold and heat emergencies, diabetes, drowning, fractures, head injuries, heart attack, poisoning, shock, seizures, stings, bites, stroke, ticks, and more. Course includes a completion card valid for two years.

**0011 FIRST AID RENEWAL COURSE 0 UNITS**

This is a renewal course for individuals who possess a current First Aid card; or a card not expired more than 30 days. Course reviews injury and illness assessment, signs and symptoms, and treatment for the following: allergic reaction, amputations, bleeding, cuts, burns, cold and heat emergencies, diabetes, drowning, fractures, head injuries, heart attack, poisoning, shock, seizures, stings, bites, stroke, ticks, and more. Course includes a completion card valid for two years.

**0012 LIFELONG FITNESS 0 UNITS**

This physical fitness exercise class is designed to develop and encourage positive attitudes and habits with regard to cardiovascular efficiency, body composition, muscular strength and endurance, and flexibility. Each student will be assessed in the areas of body composition, cardiovascular efficiency, muscular strength and endurance, and flexibility. Fitness activity will primarily utilize exercise equipment organized into an aerobic super circuit with additional activity prescribed in an aerobics machine area, body parts weight training area and flexibility area.

**0014 ADULT PHYSICAL FITNESS 0 UNITS**

This course is designed to strengthen adults through improved posture, coordination and conditioning with emphasis on flexibility and toning as an on-going therapeutic approach.

**0016 BASIC LIFE SUPPORT: CARDIOPULMONARY 0 UNITS**

This BLS (Basic Life Support) course teaches individuals to recognize and respond to emergencies and will cover adult, child, infant CPR, and obstructed airway. Class will review blood borne pathogens, the universal precautions, and primary and scene assessment with practice on mannequins. After successful completion of a written exam, student will receive BLS card valid for two years.

**0018 PACE (PEOPLE WITH ARTHRITIS CAN EXERCISE) 0 UNITS**

PACE is a community-based, non-clinical program that involves group participation. It includes activities designed to improve certain physical parameters, such as endurance and joint motion the group experience also encourages peer interaction and socialization.

**0024 T'AI CHI, BEGINNERS 0 UNITS**

This ancient Chinese exercise form consists of a series of classical martial arts postures which gracefully flow together in slow motion. It emphasizes mental tranquility, inner awareness, and relaxation while learning and practicing and is beneficial for health and wellness.

**0026 T'AI CHI, INTERMEDIATE 0 UNITS**

This ancient Chinese exercise form consists of a series of classical martial arts postures which gracefully flow together in slow motion. It emphasizes mental tranquility, inner awareness, and relaxation while learning and practicing and is beneficial for health and wellness.

**0028 HEARTSAVER A.E.D. TRAINING 0 UNITS**

Course will provide students with the basic skills and knowledge needed to recognize a victim in need of the Automated External Defibrillation (AED) device. Students will also learn how to properly use the AED device. After successful completion of a written exam, student will receive an Adult CPR/HeartSaver AED card valid for two years.

## HOME ECONOMICS (CEHE)

**0002 BUDGET AND ENERGY - HOME MANAGEMENT 0 UNITS**

The Budget and Home Energy Management pilot program is a direct result of SDG&E recommendations as a "one-time option" for customers who are required to pay a meter deposit to establish or re-establish credit. Part I will offer introductory information on how to read an energy bill and meter; manage energy, and introduce other company services. Part II will review available community services, budget and money management tips. One person in a household must complete "both sessions" in order to receive a certificate of completion.

**0007 ATTAINING OPTIMUM HEALTH IN THE 21ST CENTURY 0 UNITS**

Learn how to maintain a health promotion program. This course will cover nutrition, body image, eating disorders, stress management, exercise, addictions and health risks.

**0019 HERBOLOGY 0 UNITS**

This course covers the safe use of herbs and herbal products for minor health conditions. The course emphasizes herbs readily available, easy and safe to use.

**0025 HOW TO MAKE FENG SHUI WORK FOR YOU 0 UNITS**

This is an introductory course in the practice of Feng Shui; an ancient Chinese art which teaches you to create a harmonious environment through arrangement of living and working spaces. Students will learn to apply basic Feng Shui principles to the home or office to enhance health, relationships, and success.

**0030 THE ART OF AFTERNOON TEA 0 UNITS**

The course is designed to help students learn the essentials of serving tea, and covers setting and serving etiquette, preparing the tea table, recipes, and traditions.

**0040 FAMILY, FINANCE AND MONEY MANAGEMENT 0 UNITS**

Course prepares students to understand the values, needs, wants, goals, and resources that enable them to make wise decisions that contribute to a family's stability and improve the quality of life. Financial resource management, including consumer rights and responsibilities will also be discussed.

**0042 CREATIVE VEGETARIANISM 0 UNITS**

The course discusses and identifies individuals who follow a plant-based diets and how to eat healthy. Subjects include: common definitions that qualify vegetarian dietary habits, and how they are interpreted; health benefits, nutritionally balanced recipes, selecting meals on restaurant menus, etc.

**0044 A FINANCIAL WORKSHOP DIRECTED TOWARD WOMEN 0 UNITS**

Class is open to all students; especially women, and will discuss achieving true financial independence. The course will help you learn to set financial goals and use strategies that will help you meet your goals. You will learn that independence is gained as much more to do with taking control of the finances you have.

**0045 INS AND OUTS OF SERVICING A VEHICLE 0 UNITS**

This course is designed to prepare students to successfully identify the need for preventative maintenance and fluid replacement service. Topics will also cover engine service, drive line function, electrical system diagnosis and repair, as well a general safety practices defined for wheels, tires, brakes, and suspension service.

## OLDER ADULTS (CEOA)

**0004 CONTEMPORARY LIVING 0 UNITS**

1 - 48 hours lecture

This course provides strategies for achieving physical, emotional and mental health. Social and behavioral issues influencing society will be discussed and students will participate on their own level to increase their cognitive and interpersonal communications.

**0006 MUSIC THERAPY FOR OLDER ADULTS 0 UNITS**

1 - 3 hours lecture, 1 - 48 hours laboratory

This course is designed to stimulate and sustain auditory perception, discrimination, and manual dexterity for older adults. Students will learn about music, new and old, by listening, singing, playing and creating music with others.

**0008 55 ALIVE/MATURE DRIVING 0 UNITS**

The objective of the 55 Alive Driver Safety Program is to help older adults protect their driving privileges. Students will learn the naturally occurring, age-related changes which affect driving, as well as specific methods to compensate for these changes.

**0010 LONG TERM CARE 0 UNITS**

This introductory course explains how to care for someone who can no longer live independently. Learn how to assist in essential everyday activities like eating, dressing, bathing etc., and review options regarding assisted care.

- 0012 HOW TO WRITE THE STORY OF YOUR LIFE 0 UNITS**  
This course is designed to familiarize seniors with tools and techniques of autobiographical writing, to encourage self-expression, and to provide opportunities for writing practice as well as for sharing stories with an appreciative audience of fellow writers. Students will use journal writings, handouts, and in-class examples to help develop their own personal stories.
- 0018 PHYSICAL FITNESS FOR OLDER ADULTS 0 UNITS**  
1 - 4 hours lecture, 1 - 48 hours laboratory  
Course provides an opportunity for aged, sedentary and chronically ill adults to improve muscle tone, increase range of movement, and to stimulate mental and visual acuity through exercise and exercise related activity.
- 0022 HOLLYWOOD THEN & NOW 0 UNITS**  
View entertainment in the early days of Tinsel Town through today's Oscar nominations. Review and discuss the public and not-so-private lives of prominent figures from Vaudeville to the Silver Screen and present day comedy, music, drama, horror and mystery. Socialization is emphasized to increase motor and mental skills.
- 0026 T'AI CHI CHU'AN FOR OLDER ADULTS 0 UNITS**  
1 - 2 hours lecture, 1 - 48 hours laboratory  
The use of the ancient Chinese martial art T'ai Chi Chu'an to integrate mental discipline with physical exercise to develop flexibility, balance, strength and the reduction of stress and tension.
- 0032 THE WRITING WORKSHOP 0 UNITS**  
This course emphasizes effective strategies for thinking and writing creatively. Learn about basic correspondence for personal and professional use.
- 0040 NUTRITION NEWS 0 UNITS**  
1 - 48 hours lecture  
This course will provide students with consumer information and review nutrition theories and practices specifically related to maintaining the health of older adults. Students will learn about planning and preparing economical and well-balanced meals for one or two people. Nutrition will be emphasized to maintain a healthy lifestyle.
- 0042 PHYSICAL FITNESS FOR LIFE AND HEALTH 0 UNITS**  
1 - 2 hours lecture, 1 - 48 hours laboratory  
This course will include general conditioning exercises, aerobic exercises, and floor exercises used to develop flexibility and strength.
- 0046 PAINTING FOR PLEASURE FOR OLDER ADULTS 0 UNITS**  
This course provides instruction in basic principles of art to enhance creativity for older adults. Learn how to use painting tools and how to apply basic principles of art to painting. Through art-making, students will improve emotional, mental and well-being.
- 0048 ART THERAPY FOR OLDER ADULTS 0 UNITS**  
1 - 2 hours lecture, 1 - 48 hours laboratory  
To encourage the stimulation of mental, physical, and social capabilities through use of arts and crafts; thus enhancing the quality of the students' lives. This course will help improve student's emotional, spiritual, mental, creative and social skills on a therapeutic level.
- 0050 FINANCIAL DECISIONS & SURVIVAL FOR OLDER ADULTS 0 UNITS**  
This introduction course focuses on personal empowerment that enables older adults to cope effectively in challenging financial situations. Emphasis is placed on taking personal responsibility for an individual's life and those deviations that affect their long and short range financial planning, health and estate issues, budgeting and taxes.
- 0052 GROWING OLDER, GETTING BETTER 0 UNITS**  
Learn to achieve more physical and mental health, enhanced functional independence, and optimal wellness. Better lifestyle habits has helped people stay independent, healthier, and happier for more years than every before.
- 0054 INTERGENERATIONAL DIALOGUE 0 UNITS**  
48 hours lecture  
This course will examine issues across a lifespan with focus on differences between generations and perceptions held by different ages/generations. Discussions will improve communication skills to maximize understanding and sensitivity to contemporary issues while improving mental growth and fostering self-awareness.
- 0056 SHAKESPEARE FOR FUN FOR OLDER ADULTS 0 UNITS**  
This course is to engage students in the literary approach to the plays written by William Shakespeare and others who were influenced by his work.
- 0057 CARING FOR YOUR AGING PARENT 0 UNITS**  
This introductory course examines issues surrounding interpersonal relations and caring for an aging parent. Learn about the aging process and the psychosocial impact of care giving.
- 0060 THE CLASSICS FOR FUN 0 UNITS**  
This course engages students' thinking and learning as they process, read and discuss various writings.
- 0062 ON THE ANTIQUES TRAIL 0 UNITS**  
This course is designed to learn how to value, recognize, and identify various antiques and collectibles.
- 0064 PICTURE FRAMING I 0 UNITS**  
This hands-on introductory course will provide the student with the knowledge and skills about framing tools and art concepts to help construct or select a frame that complements the artwork.
- 0066 PICTURE FRAMING II 0 UNITS**  
An extension of Picture Framing I, this course continues to explore creative ways to construct or select a frame that complement the artwork.

**0068 BASKETRY FROM NATURAL FIBERS 0 UNITS**

Create beautiful and unique baskets using locally gathered natural materials. Learn to prepare materials, understand different basket weaving techniques, shape a basket, and dye different materials while improving mental and social skills.

**0070 RAG BASKETS 0 UNITS**

Learn how to make quick and easy rag baskets from scraps of fabric. Study the techniques for making placemats, rugs and picture frames. In addition students will improve their social skills, mental abilities, memory and creativity.

**0072 CANDLEMAKING 0 UNITS**

Students will learn how to custom blend multi-colored pillar or tapered candles, and hand-rolling techniques.

**0074 A TASTE OF WATERCOLOR 0 UNITS**

The course provides beginners with instruction in the use of paints, brushes and other tools. Learn how to apply paint to paper for desired effects, basic calligraphy and other techniques.

**0076 BEGINNING PORTRAITURE 0 UNITS**

This beginning class will teach students to portray the human head by understanding simple proportions and learning to recognize surface bones of the face (cheek, bones, brow, chin, etc.). Explore colors used in portraits for realistic flesh and backgrounds.

**0078 PAINTING A LANDSCAPE 0 UNITS**

This class will teach students to create a landscape painting using different art elements such as distance and space; and to use composition to create a painting with an emphasis on color.

**0080 PAINTING A SEASCAPE 0 UNITS**

Learn to use colors by observing the sun, sky, clouds, and the sea to paint mood and motion.

**0084 BOOKS COME ALIVE 0 UNITS**

The course provides a forum for students to explore different readings from a dramatic point of view.

**0086 NEW YOU BEAUTY MAKEOVER 0 UNITS**

Discover the secrets for a glamorous and natural makeup regimen. Learn new anti-aging techniques and color analysis for cosmetic, hairstyle and eyewear selection.

**0088 ALL ABOUT TRUSTS 0 UNITS**

This course will teach the student how living trusts work. Learn about durable power of attorney and estate planning for financial security.

**0092 JOURNEY BACK INTO TIME: WORKIN' ON THE RAILROAD 0 UNITS**

Learn the importance of the trainman, railroad safety, and preparation for train travel. This introductory course will provide the history of San Diego railways.

**0094 PHOTOGRAPHY 0 UNITS**

Learn the foundation of good composition, film selection and proper holding of a camera. On-camera flash filters and tripods will be discussed.

**0096 QUILTING: FUN WITH FABRICS 0 UNITS**

Learn to plan a sampler quilt with correct fabric selection. Review methods to cut accurately, press correctly, and sew precisely, to create a wonderful heirloom. Students will improve their patterned memories and social skills in a group setting.

**0097 FILM FORUM 0 UNITS**

This course will cover specific themes in the history of film from the early twentieth century to the present.

## PARENTING (CEP)

**0004 PARENT AND CHILD: IMPROVING THE RELATIONSHIP 0 UNITS**

This course is designed to promote more effective parent-child interaction. The parent-child relationship throughout the life cycle will be emphasized. Compare the differences between negative and positive reaction as well as reward systems.

**0010 PARENT PARTICIPATION 0 UNITS**

An introduction to the fundamental theories and principles of child development practices with age appropriate parent approaches to build strong family relationships.

**0018 BABY ECONOMICS 0 UNITS**

This course familiarizes new and expectant families with the challenges of increased budget needs, safety, space, and travel accommodations for a new baby.

**0020 THE CONNECTED LEARNING COMMUNITY 0 UNITS**

An introductory course for Lemon Grove School District parents to acquaint them with new computer hardware technologies and software programs that will extend classroom instruction into the home 24 hours a day.

**0021 FOSTER AND ADOPTIVE PARENT PRE-SERVICE 0 UNITS**

This course meets the pre-service training requirements for both foster and adoptive parents in San Diego County as determined by the Health and Human Services Agency.

**0025 PARENT EDUCATION 0 UNITS**

This course will review the importance of careful family planning and effective parenting. Students will discuss the physical, mental, emotional and social development of children as they go through life from infancy through adolescence. Special emphasis will be placed on stimulating learning environments, different types of play, safety needs, and interaction with others. Topics will also include pregnancy, prenatal care, the birth process; budgeting as a parent, and community resources.

## SHORT-TERM VOCATIONAL EDUCATION (CEV)

### 0002 FOOD HANDLER TRAINING COURSE 0 UNITS

This course is designed for individuals who are, or will be, working in a food or service industry job which requires food handler certification.

### 0004 OSHA 40 HOUR – HAZWOPER 0 UNITS

This class is designed to provide students with hands-on instruction in safety and emergency response to chemical and physical exposures in industrial and field settings. Course satisfies the requirement for generalized employee training under OSHA (1910.120) and State of California Regulation 5192 Title 8.

### 0006 ENVIRONMENTAL TECHNOLOGIES EXPLORATION 0 UNITS

This course is designed for the student who wants to gain information on the vast array of environmental technology career paths.

### 0020 BILINGUAL BASIC COMPUTER SKILLS 0 UNITS

In this introductory computer course, students whose primary language is not English, will learn basic keyboarding and word processing skills, explore the internet, and more advanced programs.

### 0024 OSHA 24-HOUR HAZWOPER TRAINING 0 UNITS

Section 126 of the Superfund Amendment and Re-Authorization Act requires the Department of Labor (DOL) to promulgate regulations for the protection of the safety and health of any employee engaged in hazardous waste operations. This 24-hour Hazardous Waste Operator and Emergency Response is (HAZWOPER) training course is designed to provide the required training for workers in the public or private sector, from large or small businesses, who work with hazardous waste but are not part of an emergency response team.

### 0025 ENVIRONMENTAL TECHNOLOGY: INCIDENT COMMAND SYSTEM 0 UNITS

Incident Command System (ICS) is intended for personnel assigned to an incident or event who have a minimum requirement for the understanding of ICS.

### 0030 OSHA 8-HR REFRESHER FEDERAL & CAL/OSHA STANDARDS 0 UNITS

This 8-hour HAZWOPER Refresher course is designed to maintain the 40-Hour or 24-Hour Certificate required for employees in the public or private sector, large or small businesses, who work with hazardous waste in any phase from management operations to on-site clean up.

### 0033 MANAGING DYNAMICS 0 UNITS

This course is designed to aid students in developing basic career management skills. Subjects include; setting priorities, time management, effective decision making and increasing productivity.

### 0040 INVENTORY CONTROL/WAREHOUSE 0 UNITS

A training program for personnel interested in specializing as a clerk in shipping, receiving, or warehouse stockrooms and will provide an overview of all aspects of the industry including practical job seeking skills.

### 0042 JANITORIAL/CUSTODIAL 0 UNITS

This course is designed for personnel interested in providing property and building maintenance to residential and commercial properties and will provide an overview of all aspects of the industry including practical job seeking skills.

### 0044 RETAIL SALES 0 UNITS

Learn the core competencies needed for retail sales careers such as telephone skills, working with difficult customers, communication skills, and practical arithmetic. This course provides an overview of all aspects of the industry and includes practical job seeking skills.

### 0048 BASIC PLANT MAINTENANCE 0 UNITS

This course will cover entry-level plant maintenance, and operations. Course is applicable to maintenance personnel, operators, HAZMAT repair teams and managers at chemical processing manufacturing, electronics, and water treatment facilities.

### 0050 CONFINED SPACE ENTRY 0 UNITS

This course will review the California Title 8 CCR regulations governing confined space entry. Course will include terminology, testing, monitoring, permit requirements, written program components, entry permits and safety regarding confined spaces.

### 0052 DEPARTMENT OF TRANSPORTATION/ HAZARDOUS MATERIALS REGULATIONS 0 UNITS

This course covers the Department of Transportation (DOT) Hazardous Materials Regulations (HMR) governing the transportation of hazardous substance. Course fulfills the general awareness training required by DOT HMR.

### 0056 READY, SET, WORK 0 UNITS

A job preparedness program for individuals entering today's competitive employment market. Topics include employee readiness, applications, interviews, dress codes, communication skills, childcare, budgeting, nutrition, stress and time management, self esteem and career ladders.

### 0058 LANDSCAPING PESTICIDE APPLICATIONS, LAWS, REGULATIONS, PRINCIPLES 0 UNITS

This course prepares participants to take the Qualified Applicator Certificate Laws, Regulations and Basic Principles Course State Exam. A Qualified Applicator Certificate Holder is a person who has qualified by examination to use or supervise the use of a restricted use pesticide in the appropriate pest control categories.

### 0060 LANDSCAPING PESTICIDE APPLICATION CATEGORIES 0 UNITS

This course prepares participants who have successfully passed the Laws, Regulations and Basic Principles Exam to take the Qualified Applicator Certificate in Pest Control Categories. Specific categories covered are: Landscape Maintenance, Right-of-Way, and Residential, Industrial and Institutional.

### 0062 GIFT BASKETS FOR FUN AND PROFIT 0 UNITS

Course will prepare students to start a gift basket business and includes a review of pricing and marketing.

**0064 HOW TO GET STARTED IN RADIO/TV VOICEOVERS 0 UNITS**

This introductory course provides students with basic voice-over techniques for radio and television commercials and narrations. Information included: how to make contacts with directors and producers, and how to "market" voice-over skills.

**0066 COMMISSIONED NOTARY PUBLIC CLASS 0 UNITS**

This course is designed to prepare students to successfully pass the California State Notary Exam. New and commissioned notaries will gain the necessary education and skills to pass the state exam.

**0068 BASIC HAZARDOUS MATERIALS BUSINESS PLAN 0 UNITS**

Chapter 6.95, Health and Safety Code, Division 20 requires companies that handle hazardous materials in certain quantities to prepare a business plan providing information on how the business uses, stores, or handles hazardous materials on its site.

**0070 AIR QUALITY MANAGEMENT 0 UNITS**

The course will focus on air compliance at the local business level and will cover basic air compliance issues associated with the San Diego Air Pollution Control District's Rules and Regulations.

**0072 BLOODBORNE PATHOGENS 0 UNITS**

This course will help students understand Blood borne Pathogens in the workplace.

**0076 PESTICIDE SAFETY & APPLICATION CONTINUING EDUCATION UNITS 0 UNITS**

This class is intended for personnel who hold a State of California Qualified Pesticide Application License. The emphasis will be on Integrated Pest Management (IPM) and new pest problems in San Diego County.

**0078 SB198 INJURY ILLNESS PREVENTION PLAN 0 UNITS**

This class will be a step-by-step guide to developing an Injury and Illness Prevention Program required by SB198 (Statute Labor Code section 6401.7 (a) and Standard 8CCR Section 3203 (a)).

**0080 CUSTOMER APPRECIATION 0 UNITS**

The Art of Customer Service teaches Call Center Customer Service Representatives a comprehensive flexible system that provides outstanding customer service to every customer; every time. This course is effective for answering inquiries, meeting customer's needs, handling complaints, closing sales and managing difficult customers.

**0082 SELF-EMPLOYMENT FOR SELF-SUFFICIENCY 0 UNITS**

Learn about owning and operating a small business. This course is effective for assessing self-employment and learning the nuts and bolts of maintaining a business.

**0084 LEARNING SKILLS FOR THE WORKPLACE 0 UNITS**

This course provides basic skills necessary for success and advancement in the workplace. Competency in basic skills; reading, writing, speaking and listening, will be emphasized as tools for career advancement.

**0086 TELEMARKETING FUNDAMENTALS 0 UNITS**

This course teaches strategies that will effectively improve the sales and communication skills of call center representatives. Learn ways to sell successfully and increase productivity in a call center environment.

**0088 HOW TO SELL YOUR CRAFTS 0 UNITS**

Discover the best consignment stores, craft fairs, and bazaars to market and sell your crafts.

**0090 CAREER EXPLORATION 0 UNITS**

Personality and interest-based assessment is used to help students gain career insight and set educational goals. Learn to matriculate from this noncredit course to a credit program.

**0092 HOW TO PUT YOUR BUSINESS ON THE INTERNET 0 UNITS**

Learn ways to establish and market your business on the World Wide Web-today.

**0094 KNOW YOUR CONFLICT MANAGEMENT STYLE 0 UNITS**

This course defines different personalities and will teach students to delegate and deal with difficult employees.

**0096 HOW TO GIVE CRITICAL FEEDBACK TO YOUR EMPLOYEES 0 UNITS**

This course instructs how to communicate with others, how to listen for expectations, and how to counsel and coach employees.

**0098 A GUIDE TO SUCCESSFUL SUPERVISION 0 UNITS**

This course is a guide for new supervisors to become more effective in increasing group productivity and company success. Students will learn to develop a managerial consciousness, improve delegating techniques and set goals.

**0099 INTRODUCTION TO THE INTERNET, PART I 0 UNITS**

Course will introduce students to the internet via current technology trends and hands-on use. Various internet browsers will be used to gain practical experience.

**0100 INTRODUCTION TO THE INTERNET, PART II 0 UNITS**

This second course is designed to teach students advanced methods of surfing the Web and use of search engines.

**0102 INTRODUCTION TO COMPUTERS, PART I 0 UNITS**

An introductory course in computer knowledge and is designed to provide students with basic skills.

**0104 INTRODUCTION TO COMPUTERS, PART II 0 UNITS**

This course builds on Introduction to Computers, Part I and provides an overview of the various types of software available for personal computers.

**0106 INTRODUCTION TO WINDOWS, PART I 0 UNITS**

Course introduces students to the Windows Operating System and is designed to provide students with basic skills necessary for personal or professional success.

- 0108 INTRODUCTION TO WINDOWS, PART II 0 UNITS**  
This hands-on class is a continuation of Part I using more advanced features in the Windows Operating System. This course is designed to provide students with basic skills necessary for personal or professional success in today's demanding computer workplace.
- 0110 INTRODUCTION TO WORD PROCESSING, PART I 0 UNITS**  
An entry level class which introduces students to word processing. Students will learn to produce letters, memos, reports, and other documents as for personal or professional use necessary for the workplace.
- 0112 INTRODUCTION TO WORD PROCESSING, PART II 0 UNITS**  
This class is a continuation of Introduction to Word Processing Part I, using the more advanced features of word processing such as Word Art, columns and tables. Course will give students a solid background in features and capabilities of modern applications for home use or for the workplace.
- 0114 INTRODUCTION TO SPREADSHEETS 0 UNITS**  
Course will introduce students to Excel; a spreadsheet program. Class is beneficial for individuals using computer programs to file, organize, retrieve and report data.
- 0116 INTRODUCTION TO POWERPOINT 0 UNITS**  
This class will introduce the student to Microsoft PowerPoint. Students will learn to create, edit and organize slides; design and format a presentation; add multimedia and special effects; integrate other Office applications; and publish a presentation to the web. This course is designed to provide students with skills necessary for success in the computerized workplace.
- 0117 BUSINESS ETHICS & VALUES 0 UNITS**  
This course is designed to acquaint students with the importance of values and ethics in the workplace.
- 0118 TIME AND STRESS MANAGEMENT 0 UNITS**  
Course will introduce students to time management principles and specific tools that assist in making maximum use of time.
- 0119 MASTERING COMMUNICATION 0 UNITS**  
Course is designed to introduce students to key elements in business organization including verbal and nonverbal communication, listening and specific supervisory skills.
- 0120 TEAM BUILDING 0 UNITS**  
This course will provide students with an understanding of team work and the common problems teams encounter and how to solve them in the workplace.
- 0121 THE RIGHT ATTITUDE 0 UNITS**  
Course is designed to provide students with key skills needed to maintain a positive attitude in the home and workplace.
- 0122 DEALING WITH DIFFICULT PEOPLE 0 UNITS**  
Course will provide students with an analysis of the attitudes and behavior which create conflict between individuals and groups within an organization.
- 0124 MANAGING CHANGES 0 UNITS**  
This course is designed to provide students with an understanding of change and how it influences individuals and the organization.
- 0125 DECISION MAKING & PROBLEM SOLVING 0 UNITS**  
This course is designed to introduce students to decision making and problem solving as a supervisor.
- 0126 SUCCESSFUL SMALL BUSINESS MANAGEMENT 0 UNITS**  
Learn how to start, operate market, finance and grow a business. This course will also help you assess self-employment and review the nuts and bolts of starting and maintaining a business.
- 0127 THE ART OF INFLUENCE AND NEGOTIATION 0 UNITS**  
Learn to effectively influence others to create a win-win situation and build better business relationships.
- 0128 CONDUCTING MORE EFFECTIVE MEETINGS 0 UNITS**  
Course will review effective methods of conducting meetings resulting in better attendance and participation. This course will provide insights on ways to improve effective meetings.
- 0129 CONFIDENT PUBLIC SPEAKING 0 UNITS**  
This class will help students learn to organize their thoughts, communicate with credibility and keep their composure when speaking in public.
- 0130 DELEGATING FOR RESULTS 0 UNITS**  
Course will explain how to delegate for tangible results and in the process create a significantly more effective staff.
- 0131 DELIVERING POWERFUL PRESENTATIONS 0 UNITS**  
This course is designed for the presenter who is already a comfortable public speaker looking for a competitive edge.
- 0132 MOTIVATION AND RECOGNITION SYSTEMS 0 UNITS**  
This class will explore ways in which creative organizations can motivate their employees and provide recognition opportunities that build loyalty and individual performance.
- 0133 SUCCESS SECRETS OF DYNAMIC LEADERS 0 UNITS**  
This class looks at ways to lead an organization to new heights of success.
- 0134 COACHING FOR IMPROVED PERFORMANCE 0 UNITS**  
Course will provide a step-by-step approach to coaching. Learn to bring out the best in your staff in a consistent and productive way.
- 0135 DIPLOMATIC AND PROFESSIONAL COMMUNICATION 0 UNITS**  
Learn to communicate under pressure and in difficult situations. This course will show you how to be poised, polished, calm and effective. Learn icebreaking techniques, how to project confidence, and how to take control of conversations.

**0136 EFFECTIVE BUSINESS WRITING 0 UNITS**

This course provides the basic skills necessary to write with more speed, clarity and impact for today's business writing.

**0137 EFFECTIVE ELECTRONIC COMMUNICATION 0 UNITS**

Course will explore the various business communication styles. Learn to identify the right style of communications for your organization; including the best methods of communication for the customers served.

**0138 SUPERVISING YOUR FORMER PEERS 0 UNITS**

Learn to establish credibility, take control and move forward with the support of your new team. Study ways to navigate through perceptions and expectations for the good of the group and your own professional standing. This course will cover basic skills of bonding, building respect and loyalty with your team, and projecting strength and credibility.

**0139 PROFESSIONAL TELEPHONE TECHNIQUES 0 UNITS**

This course focuses on creating a positive impression for your company, establishing your reputation for courtesy, and making a difference in your organization's reputation.

**0140 INTRODUCTION TO ACCESS 0 UNITS**

This basic Access class is a hands-on approach to learning to create and design functional databases. Course will provide students with the basic skills necessary for personal and professional success.

## **SUBSTANTIAL DISABILITIES (CED)**

**0003 AQUATIC PHYSICAL FITNESS SPECIAL POPULATIONS 0 UNITS**

This is a physical fitness course for special populations. Students will be assessed for their physical performance in a pool. Instructor will work individually to develop a prescribed program appropriate to their special challenge.

**0004 SWIMMING FOR SPECIAL POPULATIONS 0 UNITS**

Instruction and practice in basic swimming skills. Instruction will be structured to fit each student's individual needs.

**0005 PHYSICAL EXERCISE FOR SPECIAL POPULATIONS 0 UNITS**

This is a physical fitness course for special populations. This course includes instruction and practice in skills and techniques of physical fitness which is appropriate to each student's special challenges.

**0007 THEATER & DRAMA THERAPY: SPECIAL POPULATIONS 0 UNITS**

Provide special populations with an opportunity to experience theater and drama activities. This experience will stimulate and sustain auditory and visual perception, and mental discrimination of drama performances. Students will learn about theater, new and old, by listening, viewing and reading plays and performances with others.

# FACULTY, ADMINISTRATION & CLASSIFIED PERSONNEL



G r o w i n g   F o r   Y o u r   F u t u r e

# Faculty and Administration

## APPENZELLER, BETH

*Acting Vice President, Student Development & Services; Dean, Admissions and Records*  
B.A., San Diego State University  
M.Ed., University of San Diego  
Ph.D., Claremont Graduate University & San Diego State University

## ASHER-FITZPATRICK, MARY

*Learning Disabilities Specialist, DSPS*  
B.A., San Diego State University  
M.A., San Diego State University

## BABYLON, DEBRA

*Art*  
B.F.A., Bowling Green State University  
M.A., M.F.A., Bowling Green State University

## BARRETT, SHARON

*Assistant Dean, Student Affairs*  
B.S., National University  
M.S., National University

## BOATNER, T. PAUL

*Counselor*  
B.A., Biola University  
M.S., California State University, Fullerton  
Ed.D., University of Southern California

## BOTZ, ANNA THERESE

*American Sign Language, Sociology*  
B.A., University of California, Los Angeles  
M.A., The George Washington University  
Ed.D., University of Southern California

## BOWYER, CATHERINE

*Athletics Director, Exercise Science*  
B.A., San Diego State University  
M.A., San Diego State University

## BRANTON, CHRISTOPHER

*Automotive Technology, GM ASEP Program*  
A.S., Grossmont College

## BRAZIL, LINDY

*English*  
B.A., University of California, Irvine  
M.A., Claremont Graduate School

## BUCKLES, TIMOTHY

*Graphic Design*  
B.A., University of California, Los Angeles

## BUCKY, MARVELYN

*English*  
B.A., San Diego State University  
M.A., San Diego State University

## CARDENAS, EZEQUIEL

*Spanish*  
B.A., San Diego State University  
M.A., San Diego State University  
Ph.D., University of Colorado

## CARMONA, PAUL

*Humanities, Philosophy, Religious Studies*  
B.A., Loyola University of Los Angeles  
M.Mus., University of Southern California  
Ph.D., Catholic University of Louvain, Belgium

## CHANDLER, TED

*Computer and Information Science*  
B.S., Northrop Institute of Technology  
M.B.A., National University

## CHARTER, CHARLES

*English*  
B.A., California State University, Fullerton  
M.A., California State University, Los Angeles

## CHIRIBOGA, CRISTINA

*Vice President, Instruction*  
B.A., San Diego State University  
M.A., University of California, San Diego  
Ed.D., University of San Diego

## COX, CARMEN

*English*  
B.A., California State University, Fullerton  
M.A., University of San Diego  
Ph.D., University of California, Riverside

## CUSTEAU, JAMES

*Automotive Technology*  
B.A., San Diego State University  
M.S., National University

## D'AMATO, JOSEPH

*Business Administration, Business Law, Entrepreneurship*  
B.A., University of Southern California  
M.B.A., California State University, Dominguez Hills

## DETWILER, DAVID

*Spanish*  
B.A., Oregon State University  
M.A., San Diego State University

## DIFFERDING, GREGORY

*Computer and Information Science*  
B.S., United States Naval Academy  
M.A., Naval War College

## DOYLE, THOMAS

*Psychology*  
B.A., University of Santa Clara  
Ph.D., Arizona State University

## ECKERT, P. SCOTT

*Mathematical Sciences*  
B.S., Cal Poly State University, San Luis Obispo  
M.S., Oregon State University, Corvallis

## ELDER, CONNIE

*Computer and Information Science*  
B.A., West Virginia University  
M.A., West Virginia University  
M.S., University of Rhode Island

## ELLIOTT, BRYAN

*Mathematical Sciences*  
B.S., Cal Poly State University, Pomona  
M.S., University of California, San Diego

## ENSEY, GLORIA

*Child Development, Health Education, Exercise Science*  
B.A., San Diego State University  
M.A., San Diego State University  
M.S., National University

## FARMER, PAM

*Exercise Science*  
B.A., San Diego State University  
M.A., San Diego State University

## FORD, JANET

*Mathematical Sciences*  
B.S., Ohio State University  
M.A., San Diego State University

## FRALICK, MARSHA

*Counselor*  
B.A., Arizona State University  
M.A., University of Redlands  
Ed.D., University of Southern California

## GARITY, G. PATRICK

*Automotive Technology, Ford ASSET Program*  
A.S., Cuyamaca College

## GOMEZ, GREGORY

*Counselor*  
B.A., San Diego State University  
M.A., National University

## GRAHAM, MARY

*English*  
B.A., University of California, Riverside  
M.F.A., San Diego State University

## HABER, SUSAN

*History*  
B.A., Michigan State University  
M.A., San Diego State University

## HAJJ, DONNA ENDICOTT

*Counselor*  
B.S., Christian Heritage College  
M.A., National University

## HAMMOND, COURTNEY

*Philosophy*  
B.A., Loyola Marymount University  
M.A., University of California, Riverside

## HANNIBAL, JAMES

*Automotive Technology*  
A.S., Cuyamaca College

## HIDER, JACQUELINE

*English, Reading*  
B.A., University of California, Berkeley  
M.A., San Diego State University

## HILL, NANYAMKA

*CARE Coordinator/EOPS Counselor*  
B.A., California College of Arts  
M.Ed., United States International University  
Counseling Cert., University of California, San Diego

## JENNINGS, NANCY

*Forensics, Communication*  
B.A., San Francisco State University  
M.A., San Diego State University

## JERJIS, RAAD

*Counselor*  
B.A., San Diego State University  
B.A., San Diego State University  
M.A., San Diego State University  
M.S., San Diego State University

## KNAPP, LOWELL

*Economics, Real Estate*  
B.S., University of Utah

## LEBLANC, LAURIE

*Chemistry*  
B.S., San Diego State University  
M.A., San Diego State University

## LEU, INWON

*Mathematical Sciences*  
B.S., Ewha Women's University, Seoul, Korea  
M.S., Virginia Tech

## LYON, SANDY

*Assistant Dean, EOPS*  
B.A., San Diego State University  
M.S., San Diego State University

## MARSHALL, TAMMI

*Mathematical Sciences*  
B.A., San Diego State University  
M.A., San Diego State University

## MCGEHEE, DUNCAN

*Engineering*  
B.M.E., Georgia Institute of Technology  
M.S., University of California, Berkeley  
Ph.D., University of California, San Diego

## MCNEIL, TERESA BAKSH

*Interim Dean, Counseling & Matriculation; Counselor, Articulation Officer*  
B.A., San Diego State University  
M.A., San Diego State University  
Ed.D., University of San Diego

## MCWILLIAMS, KATHLEEN

*English*  
B.A., San Diego State University  
M.A., San Diego State University

**MONROE, BRADFORD**

*Ornamental Horticulture, Water/Wastewater Technology*  
B.S., California State University, Fresno  
M.S., National University

**MORONES, EUGENE**

*Interim Associate Dean, Special Funded Programs*  
B.A., Trinity University  
M.A., San Diego State University  
J.D., Stanford University

**MUÑOZ, ALICIA**

*English, ESL*  
B.A., University of California, Berkeley  
M.A., San Francisco State University

**NESTA, ANGELA**

*Librarian*  
B.A., Florida Atlantic University  
M.L.S., Florida State University

**NETTE, KATHRYN**

*Biology*  
B.S., Douglass College  
Ph.D., Rutgers University

**NEWMAN, PATRICIA**

*Business Office Technology*  
B.S., University of South Dakota  
M.A., San Diego State University

**NEYLON, V. LYN**

*English, ESL*  
B.A., San Diego State University  
B.A., San Diego State University  
M.A., United States International University  
Ph.D., University of California, Riverside

**NICHOLS, TERRIE**

*Mathematical Sciences*  
B.A., San Diego State University  
M.A., San Diego State University

**PAGAARD, TIMOTHY**

*English*  
B.A., San Diego State University  
M.A., University of California, San Diego

**PERRI, GERALDINE M.**

*President*  
B.S., New York University  
M.A., New York University  
M.A., Fielding Institute of Santa Barbara, California  
Ph.D., Fielding Institute of Santa Barbara, California

**PHILLIPS, TIM**

*Computer and Information Science*  
B.A., San Diego State University  
M.B.A., San Diego State University

**PREIBISIUS, ERIC**

*Mathematical Sciences*  
B.A., San Diego State University  
M.A., San Diego State University  
M.Div., Bethel Theological Seminary

**PULIDO, LILIA**

*Counselor*  
B.A., California State University, Stanislaus  
M.A., San Diego State University

**RAMOS, MARIE**

*Dean of Instruction, Division III, Continuing Education & Special Programs*  
B.A., Long Beach State University  
B.F.A., Eastern Washington University  
M.A., Eastern Washington University  
Ph.D., Washington State University

**RANEY, DAVID**

*Computer and Information Science*  
B.S., National University  
M.S., National University

**REED, JODI**

*Computer and Information Science, Graphic Design*  
B.S.Ed., University of Arizona  
M.A., San Diego State University

**RESTO, JERI**

*Librarian*  
B.A., University of Washington  
M.L.S., University of Hawaii

**RILEY, DONNA**

*Exercise Science*  
B.A., University of California, San Diego  
M.S., San Diego State University  
Ph.D., University of California, San Diego/San Diego State University

**RILEY, JERRY**

*Astronomy, Physics*  
B.A., University of California, San Diego  
M.S., San Diego State University

**SANTANA, PATRICIA**

*Spanish*  
B.A., University of California, San Diego  
M.A., University of California, Los Angeles

**SATELE, ARLEEN**

*Vice President, Administrative Services*  
B.A., California State University, San Bernardino  
M.A., California State University, San Bernardino

**SESSOM, MARY**

*Paralegal Studies*  
B.A., California State University, San Bernardino  
J.D., Thomas Jefferson School of Law

**SETZER, PATRICK**

*Music*  
B.M., University of the Arts  
M.A., Temple University

**SHERWOOD, LAWRENCE**

*Interim Associate Dean, Learning Resources; Librarian*  
B.S., San Francisco State University  
M.L.S., University of California, Berkeley  
C.A.S., University of California, Berkeley

**TACCONI, ALBERT**

*Dean of Instruction, Division II*  
B.S., Bryant College  
M.B.A., Anna Maria College  
Ph.D., Walden University

**THISS, PATRICK**

*Exercise Science*  
B.A., San Diego State University

**TROY, DONNA**

*Mathematical Sciences*  
B.A., University of San Diego  
M.A., San Diego State University

**UTGAARD, PETER**

*History*  
B.A., Southern Illinois University  
M.A., Southern Illinois University  
Ph.D., Washington State University

**VERBISCAR (MCCAMMAN), STEPHEN**

*Political Science*  
B.A., Pitzer College  
M.A., Lehigh University

**VIERSEN, BETH**

*Alternate Media/High Tech Center Access Specialist*  
B.A., San Diego State University  
M.A., National University  
Master's Certification, San Diego State University

**VILLARREAL, JOSE**

*Chemistry*  
B.S., San Diego State University  
Ph.D., University of California, San Diego; San Diego State University

**WANGLER, MICHAEL**

*Geography*  
B.A., University of California, Los Angeles  
M.S., University of California, Riverside

**WEINERT, STEPHEN**

*Psychology*  
B.A., San Diego State University  
M.A., San Diego State University

**WERGLAND, KARI**

*Librarian*  
B.A., University of Oregon  
M.L.S., University of Washington

**WIER, NANETTE**

*Communication*  
B.A., San Diego State University  
M.A., San Diego State University

**WOJTKOWSKI, ROBERT**

*Exercise Science*  
B.A., San Jose State University  
M.A., San Jose State University

**WOLFE, MADELAINE**

*Dean of Instruction, Division I*  
B.A., San Jose State University  
M.A., San Jose State University  
Ed.D., University of San Francisco

**YASUDA, JOHN**

*Exercise Science*  
B.S., Cal Poly State University, San Luis Obispo  
M.S., Cal Poly State University, San Luis Obispo

**YOUNG, DENNIS JAMES**

*Art*  
B.A., San Diego State University  
M.A., San Diego State University

**ZAMBELLI, ANTHONY**

*Business Law, Economics*  
B.A., California State University, Stanislaus  
M.A., California State University, Fresno  
J.D., National University  
Member, California Bar Association

**ZINK, KRISTIN**

*Child Development, Special Education*  
B.S., San Diego State University  
M.S., San Diego State University  
M.A., Point Loma Nazarene College

**FACULTY EMERITUS:**

Humpert, Jerry  
Hyde, Charles L.  
Larson, Peter  
Murphy, George A.  
Tester, William  
Turner, Samuel S.

**PRESIDENT EMERITUS:**

Samuel M. Ciccati, Ph.D.  
Wallace F. Cohen, Ed.D.

# Classified Personnel

- ALLEN, MICHAEL**  
Financial Aid Advisor
- ALVARADO, PEDRO**  
Custodian, Sr.
- ALVAREZ, CHERYL**  
Clerical Assistant
- ARREOLA, LUZ**  
Community Learning Assistant
- ASBURY, NANCY**  
Administrative Secretary
- ATEEK, VANESSA**  
Admissions & Records Assistant
- AUBOL, VAL**  
Admissions & Records Specialist
- AYERS, DEBRA**  
Admissions & Records Assistant, Sr.
- BAILEY, PATRICIA**  
Athletics Assistant
- BALL, SHARI**  
Secretary/Scholarship Specialist
- BARTHOLOMEW, HELEN**  
Health Services Nurse
- BEASLEY, SANDRA**  
Learning Resources Specialist
- BIESEL, LINDA**  
Account Clerk, Sr.
- BRAAKSMA, SHERRI**  
Instructional Computer Lab Technician
- BROWN, LAURIE**  
Career & Job Development Services Supervisor
- BROWN, MARCELLA**  
Student Services Specialist, Assessment
- BURAK, JOAN**  
Instructional Operations Supervisor
- BURNETT, DAVID**  
Biology Technician, Sr.
- BUSH, POPPY**  
Student Services Specialist
- CALLEROS, SILVESTRE**  
Custodian
- CARROLL, TERRY**  
General Maintenance Worker
- COLE, LEONITA**  
Administrative Assistant
- CONNOLLY, LYMAN**  
Athletic Trainer
- CONTRERAS, STEVEN**  
Athletic Facilities Technician
- COOPER, JOANN**  
Instructional Lab Assistant, Int.
- COSSANO, MARK**  
Multi-Media Technician, Sr.
- COSTA, ERNIE**  
Custodian
- CRAWFORD, KARI**  
Financial Aid Advisor
- DAVIES, SUZANNE**  
Child Development Center Assistant, Sr.
- DEHAVEN, DAVID**  
Custodian
- DIBELLA, LISA**  
Evaluations Advisor
- DUBORD, MARTIN**  
Grounds Maintenance Worker, Sr.
- DUDDY, JAMES**  
General Maintenance Worker, Sr.
- ESPIRITU, SALVADOR**  
General Maintenance Worker, Sr.
- FAVRO-BUCHER, RITA**  
Admissions & Records Specialist
- FERNANDEZ, JUDITH**  
Child Development Center Assistant, Sr.
- FLEMING, PAM**  
Financial Aid Advisor
- FRANCIS, DAVID**  
Desktop Publishing Specialist
- FRANCO, ROSENDO**  
Custodian
- GEOOLA, FARAMARZ**  
Computer Lab Assistant
- GODINEZ, MARCIA**  
Chemistry Technician, Sr.
- GONZALES, MAGDALENE**  
Student Services Specialist, Career Center
- GONZALES, STEPHEN**  
Custodial Supervisor
- GOTTFRIED, ROBERTA**  
Test Proctor
- GRASMICK, SARA**  
Budget Analyst
- GRECO, VICKI**  
Child Development Center Assistant, Sr.
- GREER, LINDA**  
Athletic Trainer
- GRIMES, KEN**  
Administrative Secretary
- HAAR, LINDA**  
Child Development Center Coordinator
- HAMLETT, SHARRON**  
Administrative Secretary
- HARP, LINDA**  
Printing Operations Assistant, Sr.
- HATFIELD, AIMEE**  
Clerical Assistant, Sr.
- HEIMASTER, JOHN**  
Grounds Supervisor
- HEIMPEL, MARIA**  
Ornamental Horticulture Technician
- HERNANDEZ, DANIEL**  
Financial Aid Advisor
- HERNANDEZ, JACQUELINE**  
Assistant Bookstore Manager
- HIGGINS, BERNARD**  
Athletic Field Maintenance Worker
- HOK, NORA**  
Financial Aid Assistant
- HOUSTON, CHERYL**  
Administrative Secretary
- HOWARD, NANCY**  
Clerical Assistant
- HUBER, REBECCA**  
Bookstore Purchasing Assistant
- HUGHES, SHIRLEY**  
Financial Aid Advisor
- KEW, DIANE**  
Graphics Computer Lab Assistant
- KNOX, KAREN**  
Clerical Assistant
- KRAUSIE, OLIVIA**  
Admissions & Records Specialist
- LAVAN, BILLIE**  
College Cashier
- LAWLESS, PAM**  
Administrative Secretary
- LEE-CRISTALDI, BIANCA**  
Communication Equipment Operator
- LEE-CRISTALDI, DONNA**  
Community Learning Operations Coordinator
- LOPEZ, OMAR**  
Instructional Lab Assistant
- MEEK, KATHERINE**  
Computer Lab Assistant
- MEESE, BARBARA**  
High School and Community Relations Coordinator
- MILLER, DEBRA**  
Administrative Secretary, Sr.
- MILLER, KAY**  
Student Services Specialist
- MISIANO, LACI**  
Communication Equipment Operator
- MODICA, BARBARA**  
Secretary
- MONCE, ROSE**  
Master Class Scheduler
- MOORE, JENNIFER**  
Instructional Lab Assistant
- MOSA, NICOLE**  
Instructional Lab Assistant, Int.
- NEY, JIM**  
Graphics Coordinator
- NGHIEM, BARBARA**  
Assistant College Cashier
- NGUYEN, PHU MANH**  
Photographer/Instructional Media Services Technician
- NOBLE, TERRI**  
Multi-Media Technician
- NOLAN, SANDRA**  
Learning Skills Specialist
- OLSON, DONNA**  
Physical & Natural Sciences Technician
- PERRY, NANCY**  
Clerical Assistant
- PERRY, REINE**  
Bookstore Purchasing Assistant
- QUINZII, ANNA**  
Administrative Secretary, Sr.
- RECKTENWALD, JAN**  
Administrative Secretary
- REYES, RAY**  
Assistant Financial Aid Officer
- RIDLEY, ALAN**  
Student Services Specialist
- RILEY, SCOTT**  
Instructional Media Services Coordinator
- ROGERS, JOHN**  
Program Technician, CalWORKs

**ROSALES, DAMIEN**

Financial Aid Assistant

**ROSE, RAYMOND**

Web &amp; Technology Support Specialist

**RUSSELL, BENJAMIN**

Office Assistant I

**SALVANERA, ALVIN**

Custodian, Sr.

**SANTOS, MAXIMO**

Custodian

**SHARP, ANN**

Child Development Center Aide

**SHINKAN, JUDY**

Printing Operations Assistant

**SILVA, PAUL**

General Maintenance Worker

**SKOGLUND, NANCY**

Admissions &amp; Records Specialist

**SMITH, JUDITH**

Student Services Specialist

**SMITH, SHANETTE**

Clerical Assistant

**SOUZA, JOSEPH**

Network Specialist II

**STANTON, LENORE**

Clerical Assistant

**STEPHENSON, PATTY**

Clerical Assistant, Sr.

**SUNDSTROM, FRANK**

Mail Processor

**TACKETT, PATRICIA**

Grounds Maintenance Worker

**TAKAHASHI, BARBARA**

Administrative Secretary, Sr.

**TAKASUGI, MELODEE**

Multi-Media Technician, Sr.

**THOMPSON, DEANNA**

Computer Help Desk Specialist

**TO, STEVE**

Instructional Computer Facilities Supervisor

**VALDEZ, CARRIE-ANN**

Financial Aid Assistant, Sr.

**VEJAR, LAILA**

Custodian

**WEISGERBER, ROBERT**

Custodian

**WHITE, KELLY**

Grounds Maintenance Worker, Sr.

**WILLIAMS, ERNEST**

Scholarship Specialist

**WRIGHT, ROBERT**

Automotive Tech Lab Technician

**ZAKARIA, EVA**

Computer Lab Assistant

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## B

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PRODUCTION COORDINATOR

Joan Burak

COVER DESIGN

James R. Ney

DESKTOP PUBLISHING SPECIALIST

Dave Francis

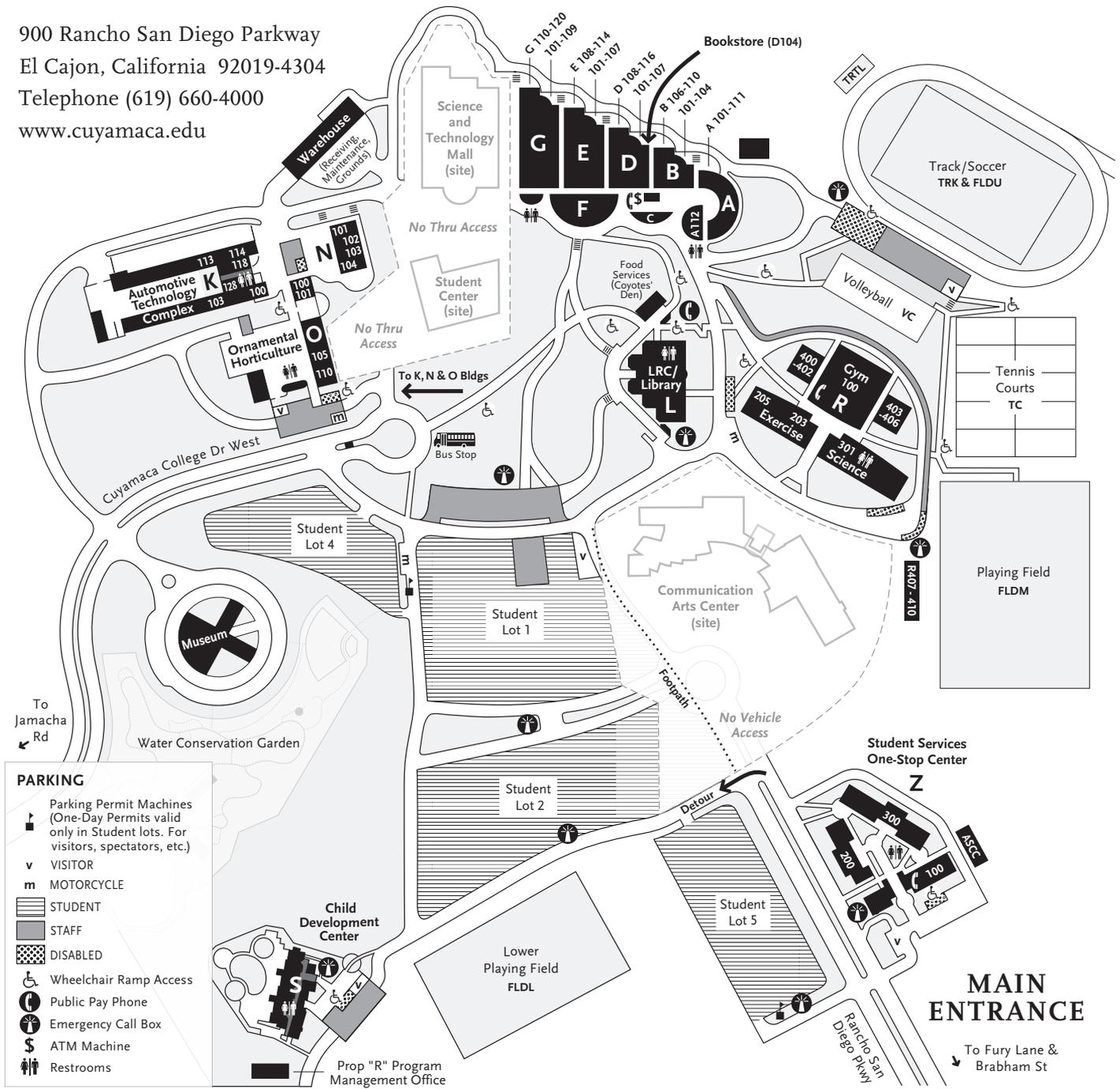
PHOTOGRAPHY

Phu Manh Nguyen

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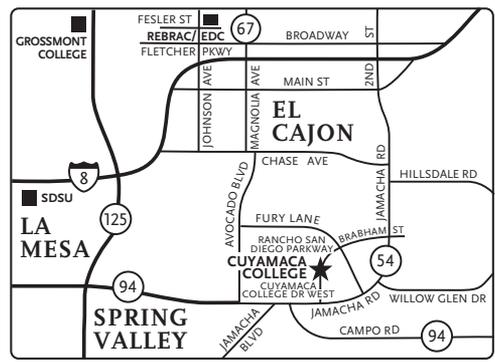
# CUYAMACA COLLEGE

900 Rancho San Diego Parkway  
 El Cajon, California 92019-4304  
 Telephone (619) 660-4000  
 www.cuyamaca.edu



- PARKING**
- Parking Permit Machines (One-Day Permits valid only in Student lots. For visitors, spectators, etc.)
  - VISITOR
  - MOTORCYCLE
  - STUDENT
  - STAFF
  - DISABLED
  - Wheelchair Ramp Access
  - Public Pay Phone
  - Emergency Call Box
  - ATM Machine
  - Restrooms
- Prop "R" Program Management Office

- Adjunct Faculty Office - A Bldg
- Administration - F Bldg
- Admissions & Records - Z Bldg
- Assessment Center - Z Bldg
- Automotive Technology - K Bldg
- Bookstore - D Bldg (D104)
- CalWORKs at Cuyamaca College - Z Bldg
- Career/Placement Center - Z Bldg
- Cashier - Z Bldg
- Child Development Center - S Bldg
- Community Learning - Z Bldg
- Computer Labs (Student use) - L Bldg
- Counseling - Z Bldg
- DSPS - Z Bldg
- DSPS Learning Lab - L Bldg
- Duplicating (Faculty Support Services) - C Bldg
- EOPS - Z Bldg
- Financial Aid - Z Bldg
- Fitness Center - R Bldg
- Food Services (Coyotes' Den) - by LRC/Library
- General Tutoring Center - L Bldg
- Gym - R Bldg
- Health & Wellness Center - A Bldg
- Heritage of the Americas Museum - Museum
- High School & Community Relations Z Bldg
- Information - Z Bldg
- Library (LRC) - L Bldg
- Mailroom - F Bldg
- Math Study Center - N Bldg
- Nursery (Plant Sales) - O Bldg
- Ornamental Horticulture - O Bldg
- Prop "R" Program Mgmt Office - by S Bldg
- Public Safety - Z Bldg
- REBRAC/EDC - 500 Fesler St, Suite 102, El Cajon
- Student Affairs - Z Bldg
- Student Center - Z Bldg (ASCC Trailer)
- Switchboard - Z Bldg
- Teaching & Learning Center (TLC) - L Bldg
- Transfer Center - Z Bldg
- Veterans Services - Z Bldg
- Writing Lab - G Bldg
- Word Processing (Faculty Support Services) - F Bldg



Locations and dates subject to change

updated April 2006