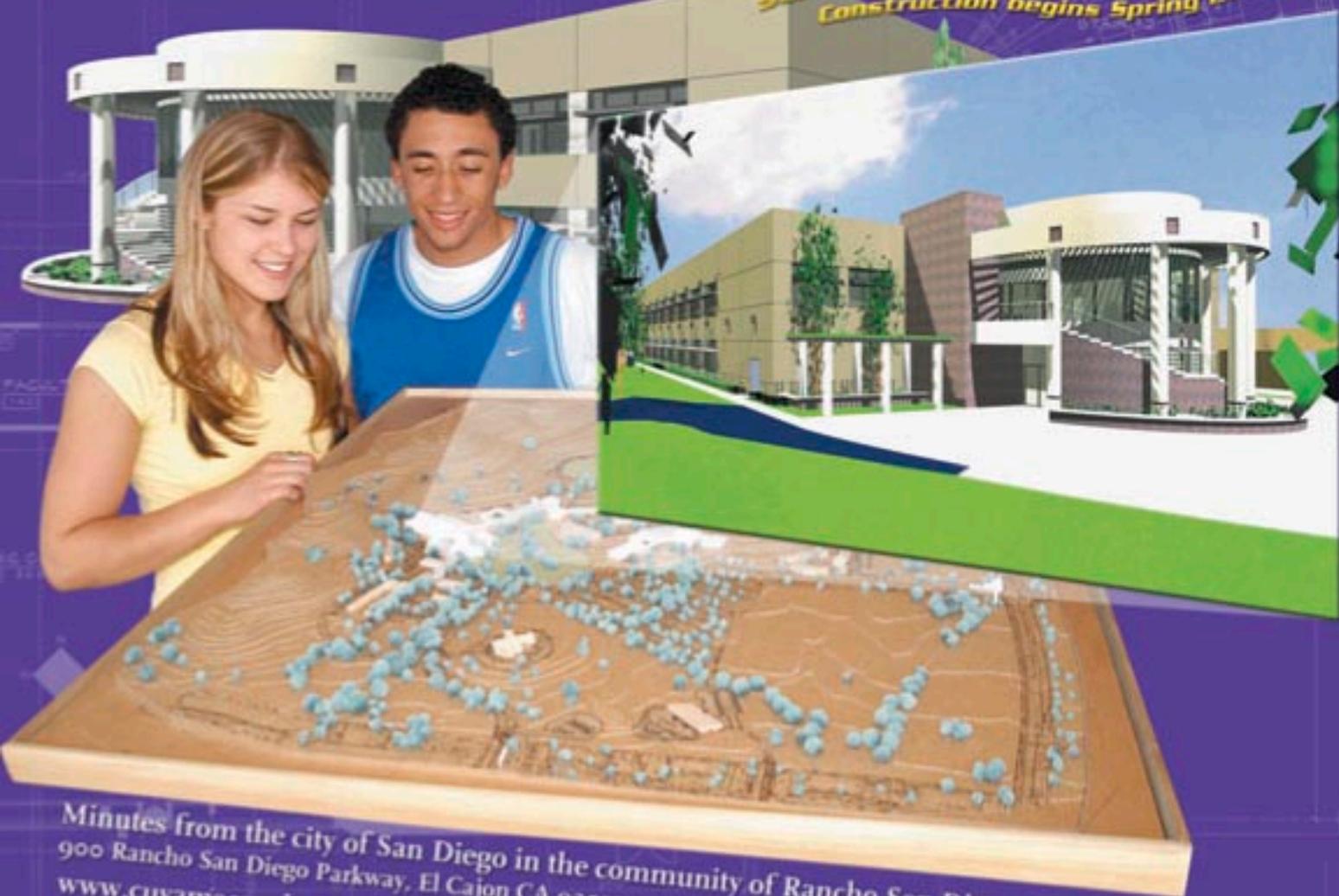




CUYAMACA
COLLEGE

Catalog 2004-2005
Cuyamaca College
Growing for Your Future

Science and Technology Mall
Construction begins Spring 2005



Minutes from the city of San Diego in the community of Rancho San Diego
900 Rancho San Diego Parkway, El Cajon CA 92019-4304
www.cuyamaca.edu

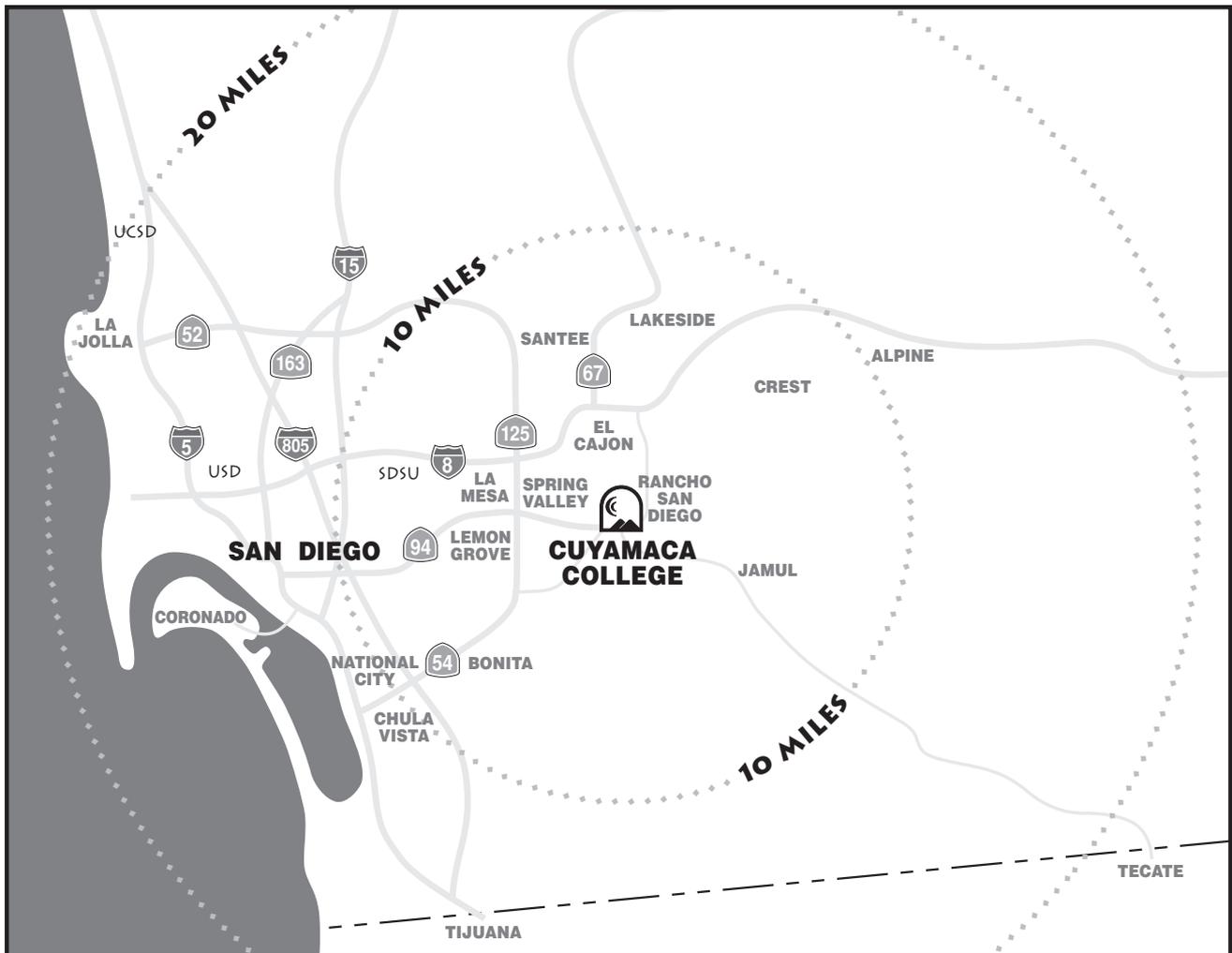
Cuyamaca College

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

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 (3402 Mendocino Avenue, Santa Rosa, CA 95403, 707-569-9177), 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, Ronald D. Kraft, Deanna Weeks **Student Members:** Rick Collins, Peter Anderson
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, let me be the first 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 and now tops 8,000 students. The college has grown close to 100 dedicated full-time faculty and administrators, and over 100 caring and supportive staff members. We currently offer 52 associate degree programs and 61 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.

Growing for Your Future

Cuyamaca College - Moving Forward

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 begins 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 150 computer stations for student use. This construction project is in the “working drawings” stage that includes detailing all spaces within the building and coordinating the infrastructure to meet the technology and equipment needs. Construction begins Spring 2005.



Communication Arts Center construction begins Fall 2005

The 88,000 square foot Communication Arts Center will house English, English as a Second Language, Reading, Fine and Performing Arts, Communications, 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 is scheduled to begin construction in September 2005.



Student Center construction begins Fall 2005

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.

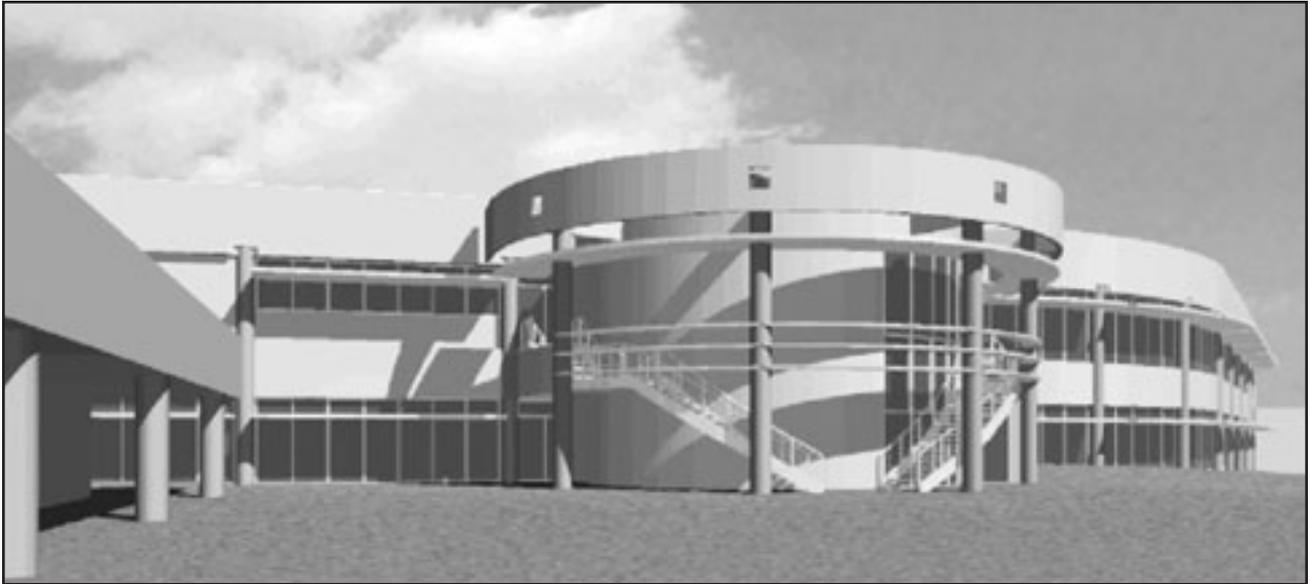




Business/CIS Building construction begins Spring 2007

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 Spring 2007, will address the ongoing technology challenges in the

Computer & Information Science, Telecommunications, Business, Economics, Paralegal Studies, and Real Estate programs. The final project proposal was sent to the state in June 2003.



Additional Projects Scheduled to begin Summer 2004:

- New parking lot expansion of 250+ spaces
- Building "O"/ Greenhouse remodel and upgrade
- Relocation of food services, bookstore, ASCC and classrooms to prepare location of new Science and Technology Mall



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JULY

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AUGUST

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FALL 2004

Continuous through August 20	Application Period
Continuous through August 20	Program Advisement
July 12-August 21	Registration
August 16-20	Professional Development-Organizational Meetings
August 20	APPLICATION DEADLINE
August 23-27	Late Application Period
August 23	Regular Day & Evening Classes Begin
August 23-Sept 3	Program Adjustment Period
September 4-6	Labor Day Weekend
September 7	Census Day
September 24	Last Day to Apply for CR/NC-Semester-Length Classes
October 15	Last Day to Apply for Fall 2004 Degree/Certificate
October 15	End of First 8-Week Session
October 18	Second 8-Week Session Begins
Continuous through October 19	Second 8-Week Application Period
November 11	Last Day to Drop Semester-Length Classes
November 12-14	Veterans' Day Weekend
November 25, 26, 27	Thanksgiving Vacation
December 10	End of Second 8-Week Session
December 13, 14, 15, 16, 17, 18, 20	Final Examinations
December 20	Close of Fall Semester
December 21	Instructor Grade Deadline
December 22-January 17	Winter Recess-Faculty
December 21-January 23	Winter Recess-Students
December 23, 24, 27, 28, 29*, 30, and 31	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, 2004. (Chapter 36, Statutes of 1977, Section 313)

SPRING 2005

Continuous through January 21Application Period

Continuous through January 21Program Advisement

November 15-January 22Registration

January 3-21.....Spring Intersession

January 17Holiday (Martin Luther King Day)

January 18-21Professional Development-Organizational Meetings

January 21APPLICATION DEADLINE

January 24-28Late Application Period

January 24Regular Day & Evening Classes Begin

January 24-February 4Program Adjustment Period

February 7Census Day

February 18-21Presidents' (Lincoln and Washington) Weekend

February 25.....Last Day to Apply for CR/NC–Semester-Length Classes

March 18Last Day to Apply for Spring 2005 Degree/Certificate

March 18End of First 8-week Session

March 21Classified Staff Appreciation Day

March 21, 22, 23, 24, 25, 26.....Spring Recess

March 25.....District Employees Holiday

March 28Second 8-Week Session Begins

Continuous through March 29Second 8-Week Application Period

April 22Last Day to Drop Semester-Length Classes

May 20End of Second 8-Week Session

May 21, 23, 24, 25, 26, 27 and 31.....Final Examinations

May 28-30Memorial Day Weekend

May 31Close of Spring Semester

June 2Instructor Grade Deadline

June 2Commencement

JANUARY

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CUYAMACA COLLEGE ADMINISTRATION

Geraldine M. Perri, Ph.D.	President
David Agosto	Vice President, Student Development & Services
Cristina Chiriboga, Ed.D.	Vice President, Instruction
Arleen Satele	Dean, Administrative Services
Beth Appenzeller, Ph.D.	Dean, Admissions & Records
Evangeline Meneses	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)
Pei Hua Chou, Ed.D.	Associate Dean, Learning Resources
Carmen S. Solom	Associate Dean, Special Funded Programs
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
Charleen McMahan	Vice Chancellor, Human Resources & Administrative Services
Brad Phillips, Ph.D.	Senior Director, Institutional Research & Planning
Vacant	Senior Director, Information Systems
Sue Rearic	Senior Director/Controller, District Business Services
Dale Switzer	Senior Director, Facilities Planning, Development & Maintenance
Robert Eygenhuysen, J.D.	Director, Risk Management/Benefits
Barbara Starks	Director, Purchasing & Contracts
Dana Quittner	Director, Intergovernmental Relations, Economic Development & Public Information
Joel Javines	Director, Public Safety
Cathie Norris	Director, Employment Services

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.



*Cuyamaca College...
Growing for Your Future*



Commencement, June 2003



Automotive Technology GM ASEP Program 2003 Graduates

Program Coordinator: Chris Branton

College History and Vision

COLLEGE VISION "Learning for the Future"

PREAMBLE & VALUES

Cuyamaca College is committed to providing opportunities and excellence in higher education to San Diego's large East County region. 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:** Library 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.



**Cuyamaca College...
Growing for Your Future**

Telecommunications Networking Technology

New Major!

Graduates of this innovative program will have specific skills in the building and maintenance of computer and telecommunications networking systems including voice, data and video communications.



Instructor: Ted Chandler, and class



General Information

AFTERNOON COLLEGE

Afternoon College is a program designed for those who want to complete the first two years of a four year degree and transfer to a university. By taking the sequence of classes offered through Afternoon College each semester, you will be able to complete transfer requirements to a university in the shortest possible time. This program is particularly aimed at busy adults who have limited time to go to college. Classes are scheduled conveniently, Monday through Thursday afternoons, usually between 3:00 and 7:00 p.m.

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, 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 G109, 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 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 during the week also teach online courses. Online courses include CIS, Business, Health Education, Child Development, History, Math and Psychology.

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 in Student Lot 1 and on Cuyamaca College Drive West by the Information Kiosk.

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:

Carmen Solom
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

(formerly Weekend College)

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 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@gccd.net.

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.



**Cuyamaca College...
Growing for Your Future**

CADD Technology Program

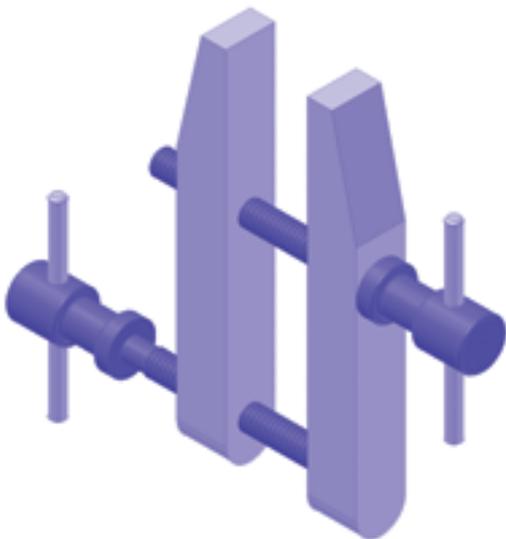
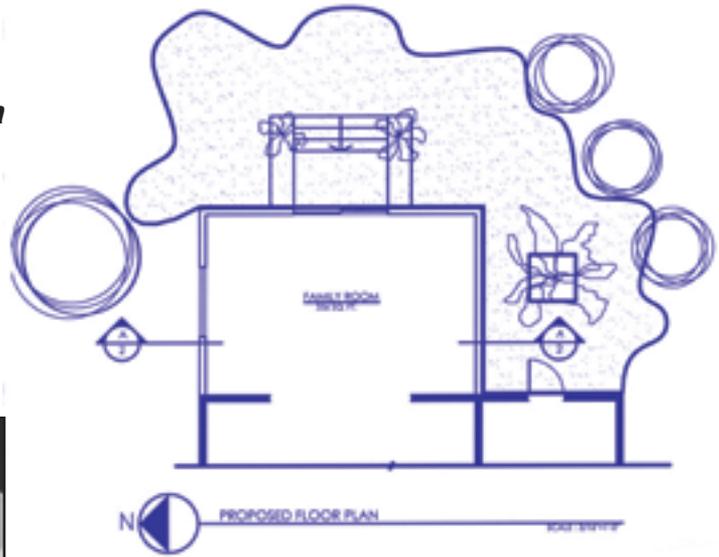
New Major!

The Computer Aided Drafting and Design Technology major prepares students for the Building Design or Manufacturing Industry and can also prepare students for transfer to SDSU's Engineering program.



Josh Collins

"I'm a re-entry student. I was in a band and had a day job doing manual labor. My job sent me to a class in AutoCAD which got me interested in changing careers and pursuing a degree in CADD Technology. I plan to own my own business in the future." Josh Collins, CADD Technology Major.



Admission Information

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 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 requires 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/Job Placement 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.

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 Admissions and Records Office and 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. A person who is a member of the armed forces of the United States stationed in California on active duty, except a member of the armed forces assigned for educational purposes to state-supported institutions of higher education, shall be exempt from paying nonresident tuition for the entire period he/she is stationed on active duty in California.
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 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
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

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.



**Cuyamaca College...
Growing for Your Future**

Computational Science

New Major!

Computational Science is a new integrated major that prepares graduates for entry into fields related to computer science, computational science or applied mathematics.



Math Lab



Gail Sugg

"My fellow classmates in advanced calculus and I meet here at the Math Study Center every day. It's a peaceful environment and all of the resources are here: calculators, our text books and great tutors. My passion is teaching; I'd like to teach at the secondary level and plan to transfer either to SDSU or UCSD." Gail Sugg, Math Major.

Students can study together or individually in our recently renovated state of the art Math Study Center and Lab.



Math Tutor: Mohamad Ahmed



Gail and classmates

Services for Students

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 one week prior on the ASCC bulletin board. For more information, please call (619) 660-4297. 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 Student Affairs Office 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 Z300.

STUDENT BENEFIT CARD

A Student Benefit Card may be purchased for \$10. This card entitles a student to the usage of IBM compatible 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) 660-4297.

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. For more information contact the Student Affairs Office at (619) 660-4297.

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, Child Development Club Association, Art Humanities Club 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

All required texts, computer software, clothing, trade books, gifts and school supplies are available for purchase at the Bookstore, located in the center of the campus near the flagpole. Sales from the Bookstore help support student scholarships and Cuyamaca College programs.

Cuyamaca College CalWORKs

If you are a current CalWORKs recipient, and would like to further your education or job skills, contact the CalWORKs office in the Student Services One-Stop Center for more information, or call (619) 660-4344. Let us be your liaison with your employment case manager. Together, the county and the college can assist you with childcare, textbooks, work placement and more..

CAREER AND JOB PLACEMENT CENTER

The College Career and Job Placement Center provides career planning and job placement 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 Job Placement Center also refers students to on-campus and off-campus job openings and assists students with employment skills such as developing resumes, interviewing, job search, and maintaining and developing skills once employed. For job referral services, students must apply in person. Jobs are posted in the Career and Job Placement Center and 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 to post resumes on the Internet. Over 200 employer files containing employment applications are also available in the Center.

The Career and Job Placement Center is located in Z200 in the Student Services One Stop Center or you can call (619) 660-4450. Visit us at our website at www.cuyamaca.edu/careerserv/ for more information.

CHILD DEVELOPMENT CENTER

The Cuyamaca Child Development Center opened in August 2001. The Child Development Center program 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 based on a set of strongly held beliefs centered on three key areas: (1) high quality care of young children in a model program; (2) the Center as an extension of and support to the family; (3) the infusion of child development knowledge and principles throughout all aspects of the program. 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 or university, 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 Transfer Center, provides the most current information to ensure a 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

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 and by a vinyl sticker displaying a two-digit number that will enable callers to relay their exact location to the officers.

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

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.

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:

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

OFF-CAMPUS CRIME INFORMATION

The San Diego County Sheriff's Department and the El Cajon Police Department 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>

INCIDENTS	1998	1999	2000	2001
GC = Grossmont CC = Cuyamaca	GC/CC	GC/CC	GC/CC	GC/CC
Alcohol Possession	2/0	1/2	0/0	0/0
Simple Assault	8/2	4/3	8/2	5/0
Aggravated Assault	1/0	1/0	0/0	2/0
Auto Burglary	29/4	20/3	5/0	5/2
Burglary	9/0	13/2	5/3	1/3
Drug/Narcotic Offenses	0/1	0/0	2/0	0/0
Hate Crimes	0/0	0/0	0/0	1/0
Homicide	0/0	0/0	0/0	0/0
Robbery	0/0	0/0	0/0	0/0
Rape	0/0	0/0	0/0	0/0
Sex Offenses	0/0	0/0	0/0	2/2
Stolen Vehicle	9/3	4/3	1/4	1/1
Weapons Possession	0/0	1/0	0/0	1/0
Arson	0/0	0/0	0/0	0/0
Arrests:				
Alcohol	2/0	1/0	0/0	0/0
Drug/Narcotic	0/0	0/0	2/0	0/0
Weapons Possession	0/0	0/0	0/0	0/0

8800 Grossmont College Drive
 El Cajon, CA 92020-1799
 (619) 644-7010
 Website: www.gcccd.net

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 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 BOGW program provides three ways to assist low income students with mandatory fees. Method A waives the enrollment, health services and student center construction fee. Students qualify for a Method A BOGW if they receive TANF, SSI, GA/GR, or are eligible for benefits under the California Veterans Dependents Educational Assistance Program. Method B waives the enrollment and health services fee. Students qualify for a Method B BOGW if they have a low family income. Method C waives the enrollment

and health services fee. Students qualify for a Method C BOGW if they apply for financial aid and have financial need. Students will be considered for a waiver as part of the financial aid application process or may apply directly through the Financial Aid Office. Information and applications are available in the Financial Aid Office.

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, groundskeeper, 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 2003-2004 academic year are based on full-time (12 semester units or more) enrollment at Cuyamaca College (subject to change):

Housing Status	Living with Parent(s)	Living Away From Parent(s)	Living with Relatives/Friends
Fees	\$ 538	\$ 538	\$ 538
Books and Supplies	850	850	850
Food and Housing	2,700	7,200	5,000
Personal Expenses	1,400	1,700	1,700
Transportation	<u>800</u>	<u>800</u>	<u>800</u>
TOTAL	\$6,288	\$11,088	\$8,888

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, Tennis and Track and Field 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.

Cuyamaca College has won conference championships in 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.

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 is central to the use of both print and electronic information resources. The LRC's web page provides useful links that support the courses offered at the College. 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.

The LRC's open computer labs contain a network of Macintosh and PC computer equipment with color monitors, laser printing, a scanner, CD-ROM and zip drives. Desktop publishing and other software necessary to support the instructional program are provided, including Internet and e-mail access. This lab is available to faculty and to currently enrolled Cuyamaca and Grossmont College students for general use.

Also located in the LRC is the English basic skills computer lab.

A variety of audiovisual materials including foreign language audiocassettes and videotapes of some telecourse lessons as course supplementary materials are available for playback use in the listening/viewing stations.

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 place a student into English and/or math courses. These measures include testing and the use of the ENGLand and MATHLand guides. All new students should participate in assessment. To receive an exemption from this component, review the "Exemption Criteria" which follow and see a counselor.
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 will 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 at Cuyamaca College use an "Early Alert" program to monitor students' progress in courses. Notices are sent to students mid-semester regarding 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 additional assistance.

EXEMPTION CRITERIA

Some 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 must see a counselor for an exemption waiver.

TRANSFER CENTER

The 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 that is accessible to students. The community college is the crucial link between the K-12 system and the four-year academic institutions, and the 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; www.ucop.edu/pathways; and www.assist.org. At our website, www.cuyamaca.edu/transfer_center, there are links to national universities by state, major course equivalencies to SDSU and UCSD, the TAG agreement to UCSD and the Transfer Newsletter.

The Transfer Center hosts representatives from four-year universities to assist students in planning for transfer, and provides application workshops for transfer to the UC and CSU. For additional information stop by the Transfer Center in Z200 in the Student Services One Stop Center or call (619) 660-4425.

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

Students needing individual help in writing, reading or ESL may receive assistance in the Reading and Writing Center, located in G109.

ESL STUDENTS

For ESL students, tutoring is available in both the Reading and Writing Center (G109) and in the General Tutoring Center in the LRC.



**Cuyamaca College...
Growing for Your Future**

**Automotive Technology Complex Remodel
Scheduled for 2004**

Students Benefit!

Renovation of the Automotive Technology Complex will improve the learning environment for students by providing facilities and technology which support the 'new generation' field of Automotive Technology. The renovated complex will feature state of the art 'smart classrooms,' a computer lab, expanded space for alignment equipment, as well as improved shop and storage space to accommodate heavy equipment and automotive parts. Jim Custeau, Automotive Program Coordinator.



Program Coordinator: Jim Custeau



Remodel rendering of Automotive Technology Complex
Main Entrance



Classrooms and Auto Bays



Andrew Charalambous, Automotive Technology Major



Academic Policies

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.

Examination	Score	Credit Allowed Toward Degree	Cuyamaca Equivalents*
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	5 semester units	CHEM 141
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	6 semester units	FREN 120,121
	4,5	6 semester units	FREN 220,221
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	3,4,5	3 semester units	MUS 110
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	6 semester units	SPAN 120,121
	4,5	6 semester units	SPAN 220,221
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

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.

Students who wish to withdraw from college for more than one semester and maintain continuous attendance must file for a Leave of Absence with the Admissions and Records Office.

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 will 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.

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.

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. 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.

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.

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.

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.

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-time12 units
- Three-quarter time9-11½ units
- One-half time6-8½ units
- One-quarter time3-5½ 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

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

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

GROUND 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: 28.1%

Transfer Rate: 28.1%

From 1999 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 1999, 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, 28.1% attained a certificate or degree or became 'transfer prepared' during a three year period, from Fall 1999 to Spring 2002. Students who are 'transfer-prepared' have completed 56 transferable units with a GPA of 2.0 or better.

Based on the cohort defined above, 28.1% 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 2000 to Spring 2002.

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.



*Cuyamaca College...
Growing for Your Future*

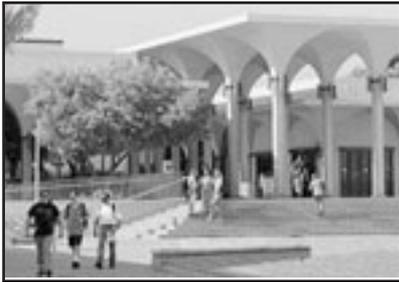


Vanessa Giorgi

University Transfer Studies Degree

The University Transfer Studies Degree was developed a few years ago to help students take the specific classes they need to transfer to either a UC or CSU campus. There has already been a huge increase in the number of students that are transferring to four year colleges and universities. In Fall 2003 there was a 58% increase in the number of Cuyamaca College students that transferred to SDSU!

"I graduated from Cuyamaca College in June 2003 with a double major in University Transfer Studies and Business Administration and am now attending San Diego State University, majoring in Accounting. The University Transfer major helped me take the classes that I needed to be admitted to SDSU." Vanessa Giorgi, proud to be an Aztec!



**Transfer Information
and Degree Requirements**

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) 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 preparation requirements through the University Transfer Studies major. For major 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 program which community college transfer students can use to fulfill lower division general education requirements for either the CSU or UC system without the need, after transfer, to take additional lower division general education courses.

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 2004-2005

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 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
 - ENGL 122, 201, 202, 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, 220, 221

AREA 4 – SOCIAL AND BEHAVIORAL SCIENCES

(At least 3 courses, 9 semester units)

Courses from at least two disciplines.

- ANTH 120
- CD 125
- ECON 110*, 120, 121
- GEOG 130
- HIST 108@, 109@, 114, 115, 118@, 119@, 122@, 123@, 124, 130@, 131@, 150@, 151@, 180@, 181@, 275, 276, 277
- POSC 120, 121@, 124, 130
- PSY 120, 125, 134, 138, 140, 165, 170, 220
- 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, 120, 141, 142, 231
 - GEOG 120, 121
 - GEOL 110
 - OCEA 112
 - PHYC 110*, 120*, 121, 130*, 131*, 190*, 200*, 210*
 - PSC 110, 111
- B. **Biological Sciences:**
 - ANTH 130
 - BIO 130, 131, 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. Select one course from Column A and one course from Column B.)

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

Courses used to meet this requirement may not be used to satisfy requirements for 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.

<u>Column A</u>	<u>Column B</u>
POSC 121	POSC 140
HIST 108	HIST 109
HIST 118	HIST 119
HIST 122	HIST 123
HIST 130	HIST 131
HIST 150	HIST 151
HIST 180	HIST 181

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

@ This course may not be used for both American Institutions and Social Science requirements.

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:

<u>Cuyamaca College</u>	<u>California Articulation Number</u>
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 130	CAN PHIL 6
PHIL 140	CAN PHIL 4
PHYC 120	CAN PHYS 2
PHYC 120+121	CAN PHYS SEQ A
PHYC 121	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 125	CAN FCS 12
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

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

Articulation agreements have been completed with most campuses of the University of California (see ASSIST at www.assist.org). A new Intersegmental General Education pattern acceptable at all University of California campuses is now available. Specific courses required for major preparation should be discussed with a counselor.

To apply for admission to the University as an undergraduate, request an application form from the Admissions Office of the campus you wish to attend or from Cuyamaca's Transfer Center. 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 five 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. The following are current requirements of the program. These requirements are updated in the fall of each year and are therefore subject to change.

The student must fulfill the following by SPRING if applying for a FALL term, by FALL if applying for a SPRING term, and by SUMMER if applying for a WINTER term:

1. Earn a minimum cumulative GPA of 2.8 in all UC transferable semester units and be in good academic standing.
2. Clear all subject omissions/deficiencies for minimum eligibility including English, mathematics, and a third course (U.S. History, foreign language or science with a lab). The course in mathematics MUST have intermediate algebra as a prerequisite and must be offered through the mathematics department (computer science classes cannot be used).
3. Clear each TAG core course for general education with the minimum of a "C" grade.
4. Establish residency for this agreement by completing 30 of the last 40 UC transferable semester units at a California Community College and who is enrolled for at least two regular terms immediately prior to enrolling at UCSD.
5. Earn 60 UC transferable semester units.

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.

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).

UNIVERSITY OF CALIFORNIA CREDIT LIMITATION FOR 2003-2004

Up-to-date at time of catalog printing. Please see a counselor for changes that take effect in 2004-2005.

Biology	No credit for BIO 130 & 131 if taken after BIO 220, 221. BIO 215 combined with MATH 160 and PSY 215: maximum credit, one course.
Chemistry	No credit for CHEM 115 if taken after CHEM 141.
Economics	No credit for ECON 110 if taken after ECON 120 or 121.
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.
History	HIST 118, 130, 150 and 180 combined: maximum credit, one course. HIST 119, 131, 151 and 181 combined: maximum credit, one course.
Math	MATH 120, 125, 126 combined: maximum credit, one course. 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, Geology 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 190/191: maximum credit, one series.
Psychology	PSY 215 combined with BIO 215 and MATH 160: maximum credit, one course.
Spanish	SPAN 120A and 120B combined with SPAN 120: maximum credit, five units. SPAN 120A and 120B must be taken 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
Fresno	San Diego
Fullerton	San Francisco
Hayward	San Jose
Humboldt	San Luis Obispo
Long Beach	San Marcos
Los Angeles	Sonoma
Maritime Academy	Stanislaus
Monterey Bay	

UPPER-DIVISION TRANSFER ADMISSION REQUIREMENTS

A student is eligible for admission to the California State University with 56-60 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 and at the Cuyamaca College Transfer Center.

GENERAL EDUCATION BREADTH REQUIREMENTS FOR THE CALIFORNIA STATE UNIVERSITY 2004–2005

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:**
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 110
OCEA 112
PHYC 110, 120, 121, 130, 131, 190, 200, 210
PSC 110, 111
2. **Life Sciences:**
ANTH 130
BIO 115, 122, 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 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.

- BIO 112
- HED 120, 158, 251
- PDC 124
- PSY 134, 140
- SOC 125

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

* Fulfills part of the 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. Two courses (minimum of six units) are required – these courses may also be used to meet part of the requirements in Area D. One course must be selected from Column A and one course from Column B:

<u>Column A</u>	<u>Column B</u>
POSC 121	POSC 140
HIST 108	HIST 109
HIST 118	HIST 119
HIST 122	HIST 123
HIST 130	HIST 131
HIST 150	HIST 151
HIST 180	HIST 181

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 2003-2004" 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.

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 111, 120
2. **Oral Communication and Analytical Thinking:**
COMM 120, 122
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 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
 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 130
 HED 120, 122
 HIST 108, 109, 114, 115, 118, 119, 122, 123, 124,
 130, 131, 150, 151, 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 111 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.



***Cuyamaca College...
Growing for Your Future***

Water/Wastewater Technology

New Major!

The Water/Wastewater Technology program prepares students for careers in either municipal drinking water and wastewater treatment facilities or industrial treatment facilities.

- ***Cross Connection Control Systems***
- ***Water Treatment Plant Operator***
- ***Wastewater Collection Systems***
- ***Water Distribution Systems***
- ***Wastewater Treatment Operator***



Otay Water Authority Personnel



Associate Degree and Certificates Programs

ASSOCIATE DEGREE PROGRAMS & CERTIFICATES

Program	Associate Degree	Certificate of Achievement	Certificate of Proficiency	Program	Associate Degree	Certificate of Achievement	Certificate of Proficiency
ACCOUNTING				ENGINEERING			
Accounting	◆	◆		Aerospace Engineering		◆	
Bookkeeping		◆		Civil Engineering		◆	
ART				Electrical Engineering		◆	
Drawing and Painting	◆			Mechanical 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			◆	HISTORY	◆		
BUSINESS OFFICE TECHNOLOGY	◆	◆		MANAGEMENT	◆		◆
Administrative Assistant	◆	◆		MATHEMATICS	◆		◆
Executive Assistant	◆	◆		ORNAMENTAL HORTICULTURE			
Office Assistant Level I			◆	Arboriculture	◆		◆
Office Assistant Level II			◆	Floristry	◆		◆
Office Professional			◆	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	◆		◆
Recreational Leadership-Outdoor Programs			◆	Escrow			◆
COMPUTATIONAL SCIENCE	◆	◆		SPANISH	◆		◆
COMPUTER AND INFORMATION SCIENCE				SURVEYING	◆		◆
Computer Network Administration	◆	◆		UNIVERSITY TRANSFER STUDIES	◆		
Telecommunications Networking Technology	◆			WATER/WASTEWATER TECHNOLOGY			
Telecommunications Networking Technician		◆		Cross Connection Control Systems	◆		◆
Web Development	◆	◆		Water Distribution Systems	◆		◆
Cisco Systems			◆	Water Treatment Plant Operator	◆		◆
Computer Programming			◆	Wastewater Collection Systems	◆		◆
Network Servicing Technology			◆	Wastewater Treatment Operator	◆		◆
Operating Systems			◆				
Telecommunications Servicing Technology			◆				
Web Design			◆				
Web Programming			◆				
Web Server Management			◆				
ELEMENTARY EDUCATION	◆						

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)

The Accounting 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)

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. Certificate does not require completion of the "core" curriculum; 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
or		
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)

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. Students will develop their ability to control line, value, shape, color, perspective and composition in various mediums.

This 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	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)

The Art–Graphic Design 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
		<hr/> 29

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
		<hr/> 6.5 - 10

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
		<hr/> 3-5
	Total Required	38.5 - 44
	Plus General Education Requirements	

FOR ALL CLASSES: Students are required to provide their own hand tools as required in each course. 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	<hr/> 25

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 Automotive Technology 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 Automotive Technology 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 190	ASSET – Orientation, PDI and Lubrication	2
AUTO 191	ASSET – Brakes and Alignment	7
AUTO 192	ASSET – Power Train	7
AUTO 193	ASSET – Engine Repair	4.5
AUTO 194	ASSET – Tune-up and Emissions	7
AUTO 195	ASSET – Electronic Engine Controls	4.5
AUTO 196	ASSET – Electrical, Accessories and Air Conditioning	5
		37

Work Experience:

AUTO 197*	ASSET – Work Experience	15
	Total Required	52
	Plus General Education Requirements	

*Must be repeated 5 times for a total of 15 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:

Course	Title	Units
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	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:

Course	Title	Units
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
or		
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
or		
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
or		
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.

CERTIFICATE OF PROFICIENCY:**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

Students who complete the requirements above qualify for a Certificate of Proficiency in Call Center Customer Service Representative. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

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 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 102	Intermediate Keyboarding/Document Processing	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
or		
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
or		
BUS 120	Financial Accounting	4
BUS 156	Principles of Management	3
BUS 157	Principles of Leadership	3
BUS 176	Computerized Accounting Applications	2
CIS 140ABCD	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 102	Intermediate Keyboarding/Document Processing	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
or		
BOT 120-122	Comprehensive Word Levels I-III	3
BOT 115	Essential Excel	1
or		
BOT 123-125	Comprehensive Excel Levels I-III	3
BOT 116	Essential Access	1
or		
BOT 126-128	Comprehensive Access Levels I-III	3
BOT 117	Essential PowerPoint	1
or		
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
or		
CIS 140ABCD	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
		<hr/> 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
		<hr/> 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 240ABCD	Advanced Databases	3
		<hr/> 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	<hr/> 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 102	Intermediate Keyboarding/Document Processing	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	<hr/> 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
or		
BOT 101AB	Keyboarding/Document Processing	3
or		
BOT 102	Intermediate Keyboarding/Document Processing	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>

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.

Students enrolled in the former Technical Illustration Graphics major will be able to complete course requirements and earn their certificate. A course substitution for the former DTEC 129 may be made in consultation with full-time faculty in the department.

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
		<u>9</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 21
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
		<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	5
MATH 280	Analytic Geometry and Calculus	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	43
	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. Course work 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.

These 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

Major consists of 27 required units of core curriculum. Remaining units are taken in an area of emphasis. Students must choose at least one area of emphasis.

NOTE: All courses in the major 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
		<u>27</u>

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
		<u>10</u>
	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
		<u>7</u>
	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.

NOTE: All courses in the major 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
		<u>19</u>

Select one (1) of the following:

CD 137	Administration of Child Development Programs	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
		<u>3-4</u>
	Total Required Plus General Education Requirements	22-23

Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Child Development–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.

CERTIFICATE OF PROFICIENCY:**RECREATIONAL LEADERSHIP–
OUTDOOR PROGRAMS (Major Code: 57123)**

The Recreational Leadership 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 this certificate may find employment with school-aged 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	<u>13</u>

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.

COMPUTATIONAL SCIENCE

(Major Code: 53130)

To meet the needs of the successful computer science, computational science or applied mathematics graduate, this 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	5
MATH 245	Discrete Mathematics	3
MATH 280	Analytic Geometry and Calculus	4
MATH 284	Linear Algebra	4
		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
or		
CHEM 141	General Chemistry I	5
CHEM 142	General Chemistry II	5
or		
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>
BOT 120	.CSIS 120
BOT 120+121+122	.CSIS 173
BOT 121	.CSIS 121
BOT 122	.CSIS 122
BOT 123	.CSIS 123
BOT 123+124+125	.CSIS 175
BOT 124	.CSIS 124
BOT 125	.CSIS 125
BOT 126	.CSIS 126
BOT 127	.CSIS 127
BOT 128	.CSIS 128
BOT 129	.CSIS 129
BOT 130	.CSIS 130
BOT 131	.CSIS 131
CIS 105	.CSIS 172
CIS 110	.CSIS 110
CIS 120	.CSIS 114
CIS 140	.CSIS 174
CIS 170A	.CSIS 151D
CIS 190	.CSIS 112
CIS 191	.CSIS 113
CIS 201	*CSIS 140
CIS 211	.CSIS 134
CIS 212	.CSIS 136
CIS 215	.CSIS 135
CIS 217	.CSIS 217
CIS 221	.CSIS 190
CIS 222	.CSIS 137
CIS 230	.CSIS 230
CIS 240B	.CSIS 276
CIS 270	.CSIS 251
CIS 291	.CSIS 213
CS 119	.CSIS 119
CS 180	.CSIS 115
CS 181	.CSIS 296
CS 182	.CSIS 293
CS 280	.CSIS 155
CS 281	.CSIS 297
CS 282	.CSIS 294
CS 289	.CSIS 165

*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 140ABCD	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
		<hr/> 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
		<hr/> 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 240ABCD	Advanced Databases	3
CIS 262	Fundamentals of Wireless LANs	3
CIS 290	Windows System Administration	3
CIS 291	UNIX System Administration	3
		<hr/> 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:

<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 162	Network Diagramming Using MS Visio	1
CIS 190	Introduction to Windows Operating Systems	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	5
		<hr/> 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
		<hr/> 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:

<i>Course</i>	<i>Title</i>	<i>Units</i>
BUS 105	Contact Center and Help Desk Procedures	2.5
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
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
		<hr/> 34.5

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
		<hr/> 3-4
	Total Required	37.5-38.5

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 web sites and preparing them for entry-level positions as web designers, web programmers or web server administrators. The curriculum uses current software and hardware typically found in the field of professional web development.

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
CIS 110	Principles of Information Systems	4
CIS 140ABCD	Databases	3
CIS 190	Introduction to Windows Operating Systems	3
CIS 211	Web Markup Languages	3
CIS 212	Introduction to Dreamweaver	3
CIS 213	Advanced Dreamweaver	3
CIS 215	JavaScript Programming	3
CIS 216	Active Server Pages	3
CS 119	Program Design and Development	3
		<hr/> 28

Select three (3) of the following:

CIS 170ABCD	Computer Graphics	3
CIS 201	Cisco Networking Academy I	3
CIS 214	Web Server Management	3
CIS 217	Web Graphics	3
CIS 221	Web Multimedia	3
CIS 222	Flash Web Animation	3
CIS 240ABCD	Advanced Databases	3
CIS 290	Windows System Administration	3
CS 180ABCD	Introduction to Visual Basic Programming	4
CS 182	Introduction to Java Programming	4
		<hr/> 9-11
	Total Required	37-39
	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:

The Computer and Information Science Certificates of Proficiency offer specific training, either for an entry-level position 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:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
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:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
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:

<i>Course</i>	<i>Title</i>	<i>Units</i>
BUS 105	Contact Center and Help Desk Procedures	2.5
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
	Total Required	14.5

Select one (1) of the following:

CIS 190	Introduction to Windows Operating Systems	3
CIS 191	Introduction to UNIX Operating System	3
	Total Required	17.5

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>
BUS 105	Contact Center and Help Desk Procedures	2.5
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	17.5

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
CIS 217	Web Graphics	3
	Total Required	12

Select one (1) of the following:

CIS 215	JavaScript Programming	3
CIS 221	Web Multimedia	3
CIS 222	Flash Web Animation	3
	Total Required	15

VII. WEB PROGRAMMING (Major Code: 57120)**Certificate Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
CIS 140ABCD	Databases	3
CIS 211	Web Markup Languages	3
CIS 215	JavaScript Programming	3
CIS 216	Active Server Pages	3
		12

Select one (1) of the following:

CIS 222	Flash Web Animation	3
CIS 240ABCD	Advanced Databases	3
CS 119	Program Design and Development	3

and

CS 119L	Program Design and Development Lab	1
CS 180ABCD	Introduction to Visual Basic Programming	4
CS 181	Introduction to C++ Programming	4
CS 182	Introduction to Java Programming	4
		3-4

Total Required		15-16
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VIII. WEB SERVER MANAGEMENT

(Major Code: 57121)

Certificate Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
CIS 201	Cisco Networking Academy I	3
CIS 211	Web Markup Languages	3
CIS 214	Web Server Management	3
CIS 290	Windows System Administration	3
		12

Select one (1) of the following:

CIS 215	JavaScript Programming	3
CIS 216	Active Server Pages	3
		3

Total Required		15
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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.

This major is undergoing revision at SDSU. Students entering SDSU in Fall 2005 or earlier are encouraged to choose courses from this major identified by asterisks whenever possible. Students entering SDSU in Spring 2006 or later may be subject to additional lower division requirements. See a counselor in planning your schedule and for additional updates.

Students who complete the program will receive an Associate Degree in Elementary Education and may request certification of lower division general education course work 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:

<i>Course</i>	<i>Title</i>	<i>Units</i>
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COMPOSITION, ORAL COMMUNICATION, AND LITERATURE**1. Composition** (minimum 6 units)

ENGL 120	College Composition and Reading	3
	and	
ENGL 124***	Advanced Composition: Critical Reasoning and Writing	3

or

PHIL 125	Critical Thinking	3
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2. Communication (minimum 3 units)

COMM 120	Interpersonal Communication	3
COMM 122	Public Speaking	3

3. Literature (minimum 3 units)

ENGL 122	Introduction to Literature	3
ENGL 270	World Literature I	3
ENGL 271	World Literature II	3

MATHEMATICS AND SCIENCES**4. Mathematics** (minimum 6 units)

MATH 125	Structure and Concepts of Elementary Mathematics I	3
MATH 126	Structure and Concepts of Elementary Mathematics II	3

5. Biological Sciences* (minimum 3 units)

BIO 130	General Biology I	3
BIO 131	General Biology I Laboratory	1

6. Physical Sciences* (minimum 3 units)

ASTR 110	Descriptive Astronomy	3
ASTR 112	General Astronomy Laboratory	1
CHEM 115	Fundamentals of Chemistry	4
GEOG 120	Elements of Physical Geography	3
GEOG 121	Physical Geography Laboratory	1
GEOL 110	General Geology	3
PHYC 110	Introductory Physics	4

SOCIAL SCIENCE AND HISTORY**7. Global Perspective** (minimum 3 units)

ANTH 120	Cultural Anthropology	3
GEOG 130	Human and Cultural Geography	3
SOC 120	Introductory Sociology	3

8. American Institutions (minimum 6 units)

Students should choose a pair of courses to complete the American history, U.S. Constitution, and California state and local government requirements.

HIST 180 and HIST 181	U.S. History: Black Perspectives I U.S. History: Black Perspectives II	3 3
or		
HIST 118 and HIST 119	U.S. History: The Chicano Experience I U.S. History: The Chicano Experience II	3 3
or		
HIST 108 and HIST 109	Early American History Modern American History	3 3

9. Civilizations (minimum 3 units)

HIST 100***	Early World History	3
HIST 101	Modern World History	3
HIST 105	Early Western Civilization	3
HIST 106	Modern Western Civilization	3

VISUAL AND PERFORMING ARTS/HUMANITIES**10. Values and Ethics** (minimum 3 units)

PHIL 140	Problems in Ethics	3
RELG 120	World Religions	3
RELG 130	Scriptures of World Religions	3

11. Music (minimum 4 units)

MUS 118	Introduction to Music	4
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12. Art/Humanities (minimum 3 units)

ART 100***	Art Appreciation	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
THTR 110	Introduction to Theatre	3

13. Human Growth and Development (minimum 6 units)

PSY 120	Introductory Psychology	3
and		
PSY 165	Developmental Psychology	3
or		
CD 125	Child Growth and Development	3

14. Additional Requirements (minimum 8-9 units)

HED 120****	Personal Health and Lifestyles	3
ES 253	Physical Education in Elementary Schools	3
ES Activity**	(At least two courses)	2-3

Total Required	61-62
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* An approved lab course must be included in (5) or (6).

** 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.

*** Preferred

**** Required for credential

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. This may be completed at Cuyamaca College or San Diego State University. Please refer to "Graduation Requirements" in the SDSU catalog for further information.

ENGINEERING

This transfer program is designed to cover the first two years of a four-year program leading to the Bachelor's Degree in Engineering at San Diego State University or other universities and colleges.

CAREER OPPORTUNITIES

- *Aerospace Engineer
 - Air Conditioning & Refrigeration Technician
- *Broadcast Engineer
- *CAD/CAM Engineer
 - CAD/CAM Technician
- *Chemical Engineer
- *Civil Engineer
 - Civil Engineering Technician
- *Computer Engineer
 - Drafter (Junior/Senior)
- *Electrical/Electronics Engineer
 - Electromechanical Technician
- *Environmental Engineer
 - Field Service Technician
- *Industrial Engineer
 - Industrial Engineering Technician
- *Manufacturing Engineer
 - Manufacturing Engineering Technician
- *Metallurgical, Ceramic & Materials Engineer
 - Mechanical Engineering Technician
- *Naval Engineer
- *Nuclear Engineer
- *Plastics Engineer
- *Project Architect
- *Radio Frequency Engineer
- *Sanitation Engineer
- *Structural Engineer
- *Systems Engineer
- *Robotics Engineer
 - Robotics Technician

*Bachelor Degree or higher required

Engineering Certificate Transfer Program

This transfer program is designed for the certificate only and may not be used as a major for an Associate Degree. Students who complete the requirements below qualify for a Certificate of Achievement in Engineering. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

Course	Title	Units
CHEM 141	General Chemistry I	5
ENGR 120	Engineering Computer Applications	3
ENGR 200	Engineering Mechanics–Statics	3
ENGR 210	Electric Circuits	3
ENGR 220	Engineering Mechanics–Dynamics	3
MATH 180	Analytic Geometry and Calculus	5
MATH 280	Analytic Geometry and Calculus	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

45

Plus the following depending on major:

I. AEROSPACE ENGINEERING (Major Code: 53112)

CADD 115	Engineering Graphics	3
ENGR 260	Engineering Materials	3
Total Required Including Core Classes		51

II. CIVIL ENGINEERING (Major Code: 53113)

CADD 115	Engineering Graphics	3
ENGR 218	Plane Surveying	4
ENGR 260	Engineering Materials	3
MATH 160	Elementary Statistics	3
Total Required Including Core Classes		58

III. ELECTRICAL ENGINEERING (Major Code: 53114)

MATH 160	Elementary Statistics	3
Total Required Including Core Classes		48

IV. MECHANICAL ENGINEERING (Major Code: 53115)

CADD 115	Engineering Graphics	3
ENGR/CADD 125	3D Parametric Solid Modeling	3
ENGR 260	Engineering Materials	3
Total Required Including Core Classes		54

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:

Course	Title	Units
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
		<hr/> 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
		<hr/> 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
		<hr/> 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
		<hr/> 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

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)

The Entrepreneurship 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 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
	or	
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
		<hr/> 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
		<hr/> 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 102	Intermediate Keyboarding/Document Processing	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
		<hr/> 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 230	Safety and Emergency Response	4
ENVT 240*	Cooperative Work Experience	1-4
		<u>35-38</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		38-43
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 230	Safety and Emergency Response	4
ENVT 240*	Cooperative Work Experience	1-3
Total Required		<u>24-26</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	Workplace Health and Safety	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>35-38</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	38-43
	Plus General Education Requirements	

*Offered only at Southwestern College as EHMT 201 (fully articulated with Cuyamaca College). Student must enroll and register for this class at Southwestern College (next offered Spring 05).

**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	Workplace Health and Safety	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
	Total Required	<u>27-30</u>

*Offered only at Southwestern College as EHMT 201 (fully articulated with Cuyamaca College). Student must enroll and register for this class at Southwestern College (next offered Spring 05).

**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
		<u>31.5</u>

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
		<u>3</u>

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
		<u>2-2.5</u>
	Total Required	36.5-37
	Plus General Education Requirements	

CERTIFICATE OF PROFICIENCY:

RECREATIONAL LEADERSHIP–SCHOOL-BASED PROGRAMS (Major Code: 57124)

The Recreational Leadership 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 areas of school-based recreation and fitness programs.

CAREER OPPORTUNITIES

This 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)

The Graphic Design degree program develops entry level abilities in design aesthetics, typography, illustration, digital imaging, page layout, web page design and professional business practices. Courses utilize current computer hardware and software used in the graphic design profession. Students will 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	Digital Imaging	3
GD 129	Page Layout	3
GD 130	Professional Business Practices	3
GD 225ABCD	Digital Illustration	3
	Total Required	30
	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.

HISTORY (Major Code: 54060)

The History major prepares students to transfer to four-year institutions for continued study in the field of history. This 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: The Chicano Experience I	3
HIST 119	U.S. History: The Chicano Experience 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 150	U.S. History: The Asian-American Experience I	3
HIST 151	U.S. History: The Asian-American Experience II	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. 15

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)

The Management 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	5
MATH 280	Analytic Geometry and Calculus	4
MATH 281	Intermediate Calculus	4
MATH 284	Linear Algebra	3
		<hr/> 16

Select one (1) of the following:

MATH 245	Discrete Math	3
MATH 285	Differential Equations	3
		<hr/> 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
		<hr/> 3-5
	Total Required	22-24
	Plus General Education Requirements	

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.

ORNAMENTAL HORTICULTURE

The Ornamental Horticulture 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 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)**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
		<hr/> 22.5

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. Course work 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:

<i>Course</i>	<i>Title</i>	<i>Units</i>
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>3</u>
		21

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)**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
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	<u>36</u>
	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)**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
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.

**Only offered at Southwestern College. Student must enroll and register for this class at Southwestern College.

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)**Associate in Science Degree Requirements:**

<i>Course</i>	<i>Title</i>	<i>Units</i>
OH 170	Plant Materials: Trees and Shrubs	3
OH 172	Introduction to Landscape Design	3
OH 173	Intermediate Landscape Design	3
OH 180	Plant Materials: Annuals and Perennials	3
OH 200**	Introduction to Computer Aided Landscape Design	3
OH 220	Landscape Construction: Concrete and Masonry	3
OH 221	Landscape Construction: Irrigation and Carpentry	3
OH 225	Landscape Contracting	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	34
	Plus General Education Requirements	

*Student must complete 6 units within the major at Cuyamaca College to be eligible for this course.

**Only offered at Southwestern College. Student must enroll and register for this class at Southwestern College.

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)**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
		28

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
		<hr/> 5
	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)**Associate in Science Degree Requirements:**

Course	Title	Units
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
		<hr/> 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
		<hr/> 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.

The Paralegal Studies 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:

Course	Title	Units
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
		<hr/> 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
		<hr/>
		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 111, 120

2. Oral Communication and Analytical Thinking:

COMM 120, 122

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 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

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 130

HED 120, 122

HIST 108, 109, 114, 115, 118, 119, 122, 123, 124, 130, 131, 150, 151, 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 111 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

The physical science 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	5
MATH 280	Analytical Geometry and Calculus	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	5
MATH 280	Analytical Geometry and Calculus	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. Also meets the educational requirements for the California Real Estate Broker's License and helps prepare both the salesperson and the broker for the state examination.

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

†Bachelor Degree normally recommended

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 120	Principles of Macroeconomics	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
		9-11

*Electives:

BUS 125	Business Law: Legal Environment of Business	3
RE 125	Escrow Procedures I	3
RE 197	Real Estate Economics	3
RE 202	Business Opportunities Sales	3
RE 204	Real Estate Office Administration	3
RE 230	Commercial Real Estate	3

Total Required 24-26
Plus General Education Requirements

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
	Total Required	24

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
	Total Required	18

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
	Total Required	24-26

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
or		
SPAN 120A	Spanish I	2.5
and		
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
	Total Required	26

Select one (1) of the following:

HIST 118	U.S. History: The Chicano Experience I	3
HIST 119	U.S. History: The Chicano Experience II	3
SPAN 141	Spanish and Latin American Cultures	3
SPAN 145	Hispanic Civilizations	3
	Total Required	29
	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
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	26
	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	Basic 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
		<u>8-10</u>
	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	Basic 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
		<u>21</u>

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
		<u>8-9</u>
	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	Basic 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
		<u>21</u>

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
		<u>3</u>

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
WWTR 284	Cross Connection Control Specialist-Recycled Water	3
		<u>5-8</u>
	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	Basic 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 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 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	Basic 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
WWTR 284	Cross Connection Control Specialist–Recycled Water	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.



***Cuyamaca College...
Growing for Your Future***

Recreational Leadership

New Certificate!

The Recreational Leadership Certificate is designed for students who wish to work in child care or in outdoor programs working with youth and families.



Course Descriptions

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.

AA/AS GE	= Meets general education for the Associate degree.
CSU	= Transfers to the CSU for at least elective credit.
CSU GE	= Meets general education requirements for the California State University system.
IGETC	= Meets Intersegmental General Education Transfer Curriculum requirements.
UC	= Course is transferable to the University of California campuses.
UC credit limit	= Limits the total amount of credit awarded for a series or sequence of courses in the same discipline.
CAN	= 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.

ACCOUNTING

BUSINESS (ACCOUNTING) COURSES

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

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 on the corporate form of organization.

UC, CSU

121 MANAGERIAL ACCOUNTING 4 UNITS

(CAN BUS 4; CAN BUS SEQ A = BUS 120+121)

Prerequisite: BUS 120 with a grade of "C" or "CR" or better 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.

UC, CSU

- 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.
UC, CSU
- 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
- 151 CORPORATE INCOME TAX ACCOUNTING 3 UNITS**
 Prerequisite: None
 Corequisite: None
 Recommended Preparation: None
 3 hours lecture
 Introduces students to federal taxation and focuses on tax law as applied to the non-individual tax entity. Includes an overview of the income tax environment. Topics include corporations, regular and "S," partnerships, estate and trust taxation, non-profit organization and family tax planning, and the solving of specific problems related to the filing of Federal Forms 1120, 1120S, 1065, 1041, 709, 706.
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 3 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

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.

UC, CSU, AA/AS GE, CSU GE, IGETC

121 AMERICAN SIGN LANGUAGE II 3 UNITS

Prerequisite: ASL 120 or equivalent

Corequisite: None

Recommended Preparation: None

3 hours lecture

Provides an opportunity for students to progress and enhance their ability to communicate in American Sign Language. Students will also expand their knowledge of the Deaf community, culture and history.

UC, CSU, IGETC, CSU GE

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.

CSU

220 AMERICAN SIGN LANGUAGE III 3 UNITS

Prerequisite: ASL 121 or equivalent

Corequisite: None

Recommended Preparation: None

3 hours lecture

Provides an opportunity for students to greatly improve their ability to communicate in American Sign Language by studying the nuances and intricacies of the language. Students will also enhance their awareness of the Deaf community, culture and history.

UC, CSU, IGETC, CSU GE

298 SELECTED TOPICS IN AMERICAN SIGN LANGUAGE 1-3 UNITS

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-9 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. **Offered as Credit/No Credit only. Non-associate degree applicable.**

299 SELECTED TOPICS IN AMERICAN SIGN LANGUAGE 1-3 UNITS

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-9 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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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. **Offered as 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.

UC, AA/AS GE, CSU, CSU GE, IGETC

121 ARABIC II 5 UNITS

Prerequisite: ARBC 120 with a grade of "C" or "CR" or better 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.

UC, AA/AS GE, CSU, CSU GE, IGETC

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 "CR" or better 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.

UC, AA/AS GE, CSU, CSU GE, IGETC

221 ARABIC IV 5 UNITS

Prerequisite: ARBC 220 with a grade of "C" or "CR" or better 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.

UC, AA/AS GE, CSU, CSU GE, IGETC

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.

UC, AA/AS GE, CSU, CSU GE

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.

UC, AA/AS GE, CSU, CSU GE

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. **Offered as 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.

UC, CSU, AA/AS GE, CSU GE

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

CSU

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).

UC, CSU, AA/AS GE, CSU GE, IGETC

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. **Offered as 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

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, CSU GE

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.

UC, CSU

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.

UC, CSU, AA/AS GE, CSU GE

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.

UC, CSU

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.

UC, CSU, AA/AS GE, CSU GE

- 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.
UC, CSU
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC
- 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.
UC, CSU
- 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.
UC, CSU
- 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. Gives students the opportunity to draw different subject matters including but not limited to animals, plants, still life, landscapes, seascapes, cityscapes, etc. Emphasis on making effective compositions with good craft.
UC, CSU
- 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.
UC, CSU
- 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.
UC, CSU
- 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.
UC, CSU
- 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.
UC, CSU
- 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.
UC, CSU
- 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. **Offered as 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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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. **Offered as 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 – POWER TRAIN 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 hydraulic power transmission and control systems used in automatic transmissions, and 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 Certification. Complemented by required 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 4.5 UNITS

Prerequisite: None
Corequisite: None
Recommended Preparation: None
3 hours lecture, 4.5 hours laboratory

Ford ASSET course to include an in-depth 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 also be presented. Preparation for ASE Certification. Students who successfully complete this course will receive Ford Motor Company certification in Electronic Engine Control.

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 3 UNITS

Prerequisite: Admission to the ASSET program
Corequisite: None
Recommended Preparation: None
225 hours paid work experience

Ford ASSET 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 is 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 15 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 ASE – ELECTRICAL 6 UNITS**
Prerequisite: AUTO 200
Corequisite: None
Recommended Preparation: None
4 hours lecture, 6 hours laboratory
General Motors ASE 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 ASE – BRAKES AND ALIGNMENT 7 UNITS**
Prerequisite: AUTO 200
Corequisite: None
Recommended Preparation: None
5 hours lecture, 6 hours laboratory
General Motors ASE 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 ASE – ENGINE REPAIR 4.5 UNITS**
Prerequisite: AUTO 200
Corequisite: None
Recommended Preparation: None
3 hours lecture, 4.5 hours laboratory
General Motors ASE 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 ASE – POWER TRAIN 7 UNITS**
Prerequisite: AUTO 200
Corequisite: None
Recommended Preparation: None
5 hours lecture, 6 hours laboratory
General Motors ASE 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 ASE – ENGINE PERFORMANCE AND AIR CONDITIONING 7 UNITS**
Prerequisite: AUTO 200
Corequisite: None
Recommended Preparation: None
5 hours lecture, 6 hours laboratory
General Motors ASE 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 ASE – WORK EXPERIENCE 1-4 UNITS**
Prerequisite: AUTO 200
Corequisite: None
Recommended Preparation: None
75 hours paid work experience per unit
General Motors ASE 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 ASE 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 1-7 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-21 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. **Offered as Credit/No Credit only. Non-associate degree applicable.**

**299 SELECTED TOPICS IN
AUTOMOTIVE TECHNOLOGY 1-7 UNITS**

Prerequisite: Varies with topic

Corequisite: Varies with topic

Recommended Preparation: Varies with topic

1-21 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

Study of renewable and nonrenewable resources (water, air, energy, plants, animals) and their importance, inter-relationships and proper management if people and other organisms are to have an environment acceptable for survival.

UC, CSU, AA/AS GE, CSU GE**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.

CSU, AA/AS GE, 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.

CSU, AA/AS GE, 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

UC, CSU, AA/AS GE

- 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
- 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.*
UC credit limit, CSU, AA/AS GE, IGETC, CSU GE
- 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.*
UC credit limit, CSU, AA/AS GE, IGETC, CSU GE
- 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.
CSU, AA/AS GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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: None
 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, IGETC, CSU GE

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).

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE**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.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE**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. **Offered as 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

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 on the corporate form of organization.

UC, CSU

121 MANAGERIAL ACCOUNTING 4 UNITS

(CAN BUS 4; CAN BUS SEQ A = BUS 120+121)

Prerequisite: BUS 120 with a grade of "C" or "CR" or better 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.

UC, CSU

- 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.
UC, CSU
- 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.
UC, CSU
- 128 BUSINESS COMMUNICATION 3 UNITS**
 Prerequisite: ENGL 111 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

- 151 CORPORATE INCOME TAX ACCOUNTING 3 UNITS**
 Prerequisite: None
 Corequisite: None
 Recommended Preparation: None
 3 hours lecture
 Introduces students to federal taxation and focuses on tax law as applied to the non-individual tax entity. Includes an overview of the income tax environment. Topics include corporations, regular and "S," partnerships, estate and trust taxation, non-profit organization and family tax planning, and the solving of specific problems related to the filing of Federal Forms 1120, 1120S, 1065, 1041, 709, 706.
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.

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. **Offered as 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. **Offered as 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. **Offered as 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. **Offered as 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 "CR" or better 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 102 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**102 INTERMEDIATE KEYBOARDING/DOCUMENT PROCESSING****3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: BOT 101AB or equivalent

1.5 hours lecture, 4.5 hours laboratory

Continuation course in keyboarding for students who want to increase their keyboarding skill. Students will continue to use Microsoft Word to produce correctly formatted documents. Begins with intermediate MS Word functions, therefore students entering this course should be proficient in using basic Word features and be able to key a minimum of 30 net words per minute on a 5-minute timed writing.

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 "CR" or better 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 140ABCD 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 102, 107, 115, 116, 117 with a grade of "C" or "CR" or better 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 MS 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 "CR" or better 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 MS 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 "CR" or better 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 MS 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 "CR" or better 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 MS 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 "CR" or better 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 102 with a grade of "C" or "CR" or better 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 "CR" or better 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
ABC 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.*

Offered as Credit/No Credit only.

**281 PREPARING FOR PERFORMANCE
ABC 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.*

Offered as Credit/No Credit only.

**282 PREPARING FOR PERFORMANCE
ABC 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.*

Offered as Credit/No Credit only.

**283 PREPARING FOR PERFORMANCE
ABC 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.* **Offered as 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. **Offered as 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 new 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

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. *Not open to students with credit in DTEC 130.*

CSU

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

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 construction documents for residential project based on UBC2000 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**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. **Offered as 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 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.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE**116 INTRODUCTORY ORGANIC AND BIOCHEMISTRY 4 UNITS**

Prerequisite: CHEM 115 with a grade of "C" or "CR" or better or equivalent

Corequisite: None

Recommended Preparation: None

3 hours lecture, 3 hours laboratory

The study of organic chemistry with an introduction to biochemistry. Begins with an introduction to basic organic functional group chemistry and applies these principles to the study of biologically important compounds and reaction pathways. Emphasis on the application of organic and biochemical compounds to the allied health fields.

CSU, AA/AS GE, CSU GE**120 PREPARATION FOR GENERAL CHEMISTRY 4 UNITS**

Prerequisite: MATH 110 with a grade of "C" or "CR" or better 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.

UC, CSU, AA/AS GE, IGETC, CSU GE**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 "CR" or better or equivalent or the Chemistry 141 assessment and MATH 110 with a grade of "C" or "CR" or better 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.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, IGETC, CSU GE**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.

UC, CSU, IGETC, CSU GE**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. **Offered as 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.

CSU, AA/AS GE, 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 3 UNITS

Prerequisite: None
Corequisite: None
Recommended Preparation: CD 123, 125, 131 and 126 or 127, or 128 or 129 or 130
3 hours lecture

Administrative skills, knowledge and techniques needed to organize and operate a child development facility. Emphasis on budget, management, regulatory laws, development of school policies and procedures. Required by the California State Department of Social Services for directors and head teachers.

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.

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.

202 FIELD EXPERIENCE FOR RECREATIONAL LEADERSHIP 1 UNIT

Prerequisite: CD 125, 200, 201 with a grade of "C" or "CR" or better

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.*

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. **Offered as 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****120 INTERPERSONAL COMMUNICATION 3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Provides an opportunity for students to learn and apply in daily life practical principles of interpersonal communication. Emphasis on personal, situational and cultural influences and interaction. Designed to assist students in improving their own interpersonal communication skills. Attention given to human perception, interpersonal dynamics, listening, conflict management, verbal and nonverbal symbol systems.

CSU, AA/AS GE, CSU GE**122 PUBLIC SPEAKING 3 UNITS****(CAN SPCH 4)**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

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 to basic elements of topic selection, analysis of diverse audiences, research, organization, argumentation and delivery of speeches and presentations.

UC, CSU, AA/AS GE, IGETC, CSU GE**123 ADVANCED PUBLIC SPEAKING 3 UNITS**

Prerequisite: COMM 122 with a grade of "C" or "CR" or better 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.

UC, CSU**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.

UC, CSU, AA/AS GE, CSU GE

- 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.
UC, CSU
- 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.
UC, CSU
- 137 SMALL GROUP COMMUNICATION** **3 UNITS**
 Prerequisite: None
 Corequisite: None
 Recommended Preparation: None
 3 hours lecture
 Training for participation in and leadership of the various forms of small group communication. 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 will become familiar with discussion techniques and learn the characteristics of, uses for, and limitations of various discussion forms.
UC, CSU
- 145 ARGUMENTATION** **3 UNITS**
(CAN SPCH 6)
 Prerequisite: None
 Corequisite: None
 Recommended Preparation: None
 3 hours lecture
 Emphasizes the construction and analysis of public argument. Covers the theory of argument, the processes and developments of arguments and the application of arguments to decision-making.
UC, CSU
- 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. **Offered as 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.)

UC, CSU

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

140 DATABASES 3 UNITS

ABCD

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. Beneficial for students who wish to use the computer to file, organize, retrieve, and create reports from data. (Specific software packages to be identified in class schedule.)

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 INTRODUCTION TO COMPUTER NETWORKING 3 UNITS**
ABCD 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 web site.
CSU
- 213 ADVANCED DREAMWEAVER 3 UNITS**
 Prerequisite: None
 Corequisite: None
 Recommended Preparation: CIS 140ABCD, 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 web sites 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 web site; 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 web sites using Active Server Pages (ASP) to deliver dynamic web content. Topics include database connectivity, security and e-commerce applications in web site operations. Emphasis on programming in ASP to create dynamic web content.
CSU
- 217 WEB GRAPHICS 3 UNITS**
 Prerequisite: None
 Corequisite: None
 Recommended Preparation: CIS 170ABCD, 212
 2 hours lecture, 3 hours laboratory
 This course is for anyone wishing to create graphics for the web. Covers graphics principles, screen design concepts, digitizing, and production of vector and raster images. Students will create attractive, compact graphics and mock web page layouts. (Specific software packages to be identified in class schedule.)
CSU
- 221 WEB MULTIMEDIA 3 UNITS**
 Prerequisite: None
 Corequisite: None
 Recommended Preparation: CIS 110, 170ABCD, 190 or equivalent experience
 2 hours lecture, 3 hours laboratory
 Covers the fundamentals of multimedia. Topics include design, development and implementation of the technologies used to implement interactive multimedia applications using the Internet including streaming audio, streaming video and video conferencing. Fundamentals of various file formats for digital media will be addressed as well as compression and synchronization issues. Implementation technologies including hardware architectures for media processing are also included.
CSU

- 222 FLASH WEB ANIMATION 3 UNITS**
Prerequisite: None
Corequisite: None
Recommended Preparation: CIS 212
2 hours lecture, 3 hours laboratory
Covers design, development and implementation of web-based animation using Macromedia Flash. Students will create animations and web interfaces.
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**
ABCD Prerequisite: None
Corequisite: None
Recommended Preparation: CIS 140ABCD
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. (Specific software packages to be identified in class schedule.)
CSU
- 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 up to 12 units.*

- 270 ADVANCED GRAPHICS 3 UNITS**
ABCD 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.
Offered as 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.*
UC, CSU
- 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.* **Offered as Credit/No Credit only.**
UC, CSU
- 180 INTRODUCTION TO VISUAL BASIC PROGRAMMING** **4 UNITS**
 ABCD
 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.
UC, CSU
- 181 INTRODUCTION TO C++ PROGRAMMING** **4 UNITS**
 (CAN CSCI 18)
 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.
UC, CSU
- 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).
UC, CSU
- 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 INTERMEDIATE VISUAL BASIC PROGRAMMING** **4 UNITS**
 ABCD
 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.
UC, CSU

- 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.
UC, CSU
- 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.
UC, CSU
- 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
- 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. **Offered as 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 has undergone 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.)*

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

124 PRINCIPLES OF ECONOMICS COMPUTER LAB .3 UNIT

Prerequisite: None
Corequisite: ECON 120 or 121
Recommended Preparation: None
1 hour 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. **Offered as 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. **Offered as 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.

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. **Offered as 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.

CSU, AA/AS GE, 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.

CSU

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. **Offered as 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.

UC, CSU

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

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.

UC, CSU

125 3D PARAMETRIC SOLID MODELING 3 UNITS (CAN ENGR 2)

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

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.

UC, CSU

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.

UC, CSU

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)*

UC, CSU

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.

UC, CSU

- 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)
UC, CSU
- 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.
UC, CSU
- 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
- 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. **Offered as 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. Offered as 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. **Offered as 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. Offered as 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. Offered as 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.* **Offered as 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. **Offered as 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. **Offered as Credit/No Credit only. Non-associate degree applicable.**
- 098 ENGLISH FUNDAMENTALS** **4 UNITS**
 Prerequisite: Credit in ENGL 090 or equivalent or assessment recommendation for ENGL 098
 Corequisite: None
 Recommended Preparation: None
 4 hours lecture
 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. **Offered as Credit/No Credit only. Non-associate degree applicable.**
- 098R READING FUNDAMENTALS** **3 UNITS**
 Prerequisite: None
 Corequisite: None
 Recommended Preparation: Advisory placement based on successful completion of ENGR 090R or equivalent based on assessment measures. 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. **Offered as Credit/No Credit only. Non-associate degree applicable.**
- 111 BASIC COMPOSITION** **3 UNITS**
 Prerequisite: Credit in ENGL 098 or equivalent or a grade of "C" or better in ESL 106 or completion of the assessment process for ENGL 111
 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). 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
- 111R INTRODUCTION TO COLLEGE READING** **3 UNITS**
 Prerequisite: None
 Corequisite: None
 Recommended Preparation: Advisory placement based on successful completion of ENGL 098R or equivalent based on reading assessment measures. Recommend concurrent enrollment in ENGL 111.
 3 hours lecture, 1 hour laboratory
 Designed to provide effective reading skills and strategies necessary for college success. Focuses on developing vocabulary especially geared toward college textbooks and learning strategies for efficient reading comprehension and retention. Students will also learn fundamentals of critical thinking.
- 120 COLLEGE COMPOSITION AND READING** **3 UNITS**
(CAN ENGL 2; CAN ENGL SEQ A = ENGL 120+122)
 Prerequisite: ENGL 111 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 120R ADVANCED READING AND CRITICAL**

THINKING SKILLS**3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: Successful completion of ENGL 111R 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.

UC, CSU, AA/AS GE, IGETC, CSU GE**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.

UC, CSU, IGETC, CSU GE**126 CREATIVE WRITING 3 UNITS****(CAN ENGL 6)**

Prerequisite: ENGL 111 with a grade of "C" or "CR" or better 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.

UC, CSU**135- NEWSPAPER PRODUCTION 4 UNITS****138** 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.

UC credit limit, CSU**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.

Offered as Credit/No Credit only.**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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
CSU, AA/AS GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, CSU GE
- 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 Jonson, John Milton, Lady Mary Wroth, Aphra Behn, and Jonathan Swift.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE

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 Castañeda, 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.

UC, CSU, AA/AS GE, IGETC, CSU GE**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.

UC, CSU, AA/AS GE, IGETC, CSU GE**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.

UC, CSU, AA/AS GE, IGETC, CSU GE**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.

UC, CSU, AA/AS GE, IGETC, CSU GE**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).

UC, CSU, AA/AS GE, IGETC, CSU GE**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. **Offered as 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. **Offered as 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. **Offered as 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. **Offered as 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. **Offered as 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. **Offered as 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. **Offered as 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. **Offered as 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. **Offered as 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.

UC credit limit, CSU

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.

UC credit limit, CSU

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. **Offered as 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.

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

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

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.

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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 (MSDSs) to develop strategies to reduce worker exposure.

CSU

135 WORKPLACE HEALTH AND SAFETY 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 workplace health and safety program. 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**150 HAZARDOUS WASTE MANAGEMENT APPLICATIONS 4 UNITS**

Prerequisite: ENVT 100 or concurrent enrollment

Corequisite: None

Recommended Preparation: None

3 hours lecture, 3 hours laboratory

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

3 hours lecture, 3 hours laboratory

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. *Offered only at Southwestern College as EHMT 201 (fully articulated with Cuyamaca College). Students must enroll and register for this class at Southwestern College (next offered Spring 05).*

CSU from Southwestern

- 205 SAFETY AND RISK MANAGEMENT ADMINISTRATION 4 UNITS**
Prerequisite: ENVT 100 or concurrent enrollment
Corequisite: None
Recommended Preparation: None
3 hours lecture, 3 hours laboratory
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
3 hours lecture, 3 hours laboratory
Overview of water/wastewater regulations with emphasis on federal, state and local regulatory standards. Integrated study of the principles of wastewater and stormwater management. Includes hydrology, water distribution, wastewater collection, storm water management and overall safe drinking water 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 up to 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. **Offered as 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>001* ADAPTED PHYSICAL EXERCISE 1 UNIT Prerequisite: None Corequisite: None Recommended Preparation: None 1 hour lecture, 1 hour laboratory 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. Offered as Credit/No Credit only. UC credit limit, CSU</p>	<p>009* AEROBIC DANCE EXERCISE 1 UNIT Prerequisite: None Corequisite: None Recommended Preparation: None 2 hours lecture/laboratory 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. UC credit limit, CSU</p>	<p>010* FOODS FOR FITNESS .5-1 UNIT Prerequisite: None Corequisite: None Recommended Preparation: None 1.5 - 3 hours laboratory 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. Offered as Credit/No Credit only.</p>	<p>011* LIFELONG FITNESS .5-1 UNIT Prerequisite: None Corequisite: None Recommended Preparation: None 1.5- 3 hours laboratory 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. Offered as Credit/No Credit only. UC credit limit, CSU</p>	<p>012* APPLIED FITNESS .5-1 UNIT Prerequisite: None Corequisite: None Recommended Preparation: None 1.5 - 3 hours laboratory 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. Offered as Credit/No Credit only. UC credit limit, CSU</p>	<p>013* FLEXIBILITY FITNESS 1.5 UNITS Prerequisite: None Corequisite: None Recommended Preparation: None 3 hours lecture/laboratory 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. UC credit limit, CSU</p>
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014A* BEGINNING BODY BUILDING 1.5 UNITS

Prerequisite: None
 Corequisite: None
 Recommended Preparation: None
 3 hours lecture/laboratory

Instruction and practice in conditioning, running and resistance exercises, with emphasis on total fitness of the individual.

UC credit limit, CSU

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.

UC credit limit, CSU

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.

UC credit limit, CSU

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.

UC credit limit, CSU

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.

UC credit limit, CSU

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.

UC credit limit, CSU

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.

UC credit limit, CSU

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.

UC credit limit, CSU

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. **Offered as Credit/No Credit only.**

UC credit limit, CSU

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.

Offered as Credit/No Credit only.

UC credit limit, CSU

<p>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. UC credit limit, CSU</p>	<p>080A* MODERN DANCE I 1.5 UNITS 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. UC, CSU</p>
<p>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. UC credit limit, CSU</p>	<p>080B* MODERN DANCE II 1.5 UNITS 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. UC, CSU</p>
<p>060C* ADVANCED BADMINTON 1 UNIT 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. UC credit limit, CSU</p>	<p>080C* MODERN DANCE III 1.5 UNITS 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. UC, CSU</p>
<p>076A* BEGINNING TENNIS 1 UNIT 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. UC credit limit, CSU</p>	<p>080D* MODERN DANCE IV 1.5 UNITS 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. UC, CSU</p>
<p>076B* INTERMEDIATE TENNIS 1 UNIT 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. UC credit limit, CSU</p>	<p>084A* JAZZ DANCE I 1.5 UNITS</p>
<p>076C* ADVANCED TENNIS 1 UNIT 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. UC credit limit, CSU</p>	

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.

UC, CSU

084B* JAZZ DANCE II 1.5 UNITS

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.

UC, CSU

084C* JAZZ DANCE III 1.5 UNITS

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.

UC, CSU

084D* JAZZ DANCE IV 1.5 UNITS

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.

UC, CSU

088A* BALLET I 1.5 UNITS

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.

UC, CSU

088B* BALLET II 1.5 UNITS

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.

UC, CSU

088C* BALLET III 1.5 UNITS

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.

UC, CSU

088D* BALLET IV 1.5 UNITS

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.

UC, CSU

125A* BEGINNING GOLF 1 UNIT

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.

UC credit limit, CSU

125B* INTERMEDIATE GOLF 1 UNIT

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.

UC credit limit, CSU

- 125C* ADVANCED GOLF 1 UNIT**
 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.
UC credit limit, CSU
- 150* ADAPTED SPORTS EDUCATION 1 UNIT**
 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.
- 155A* BEGINNING BASKETBALL 1 UNIT**
 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.
UC credit limit, CSU
- 155B* INTERMEDIATE BASKETBALL 1 UNIT**
 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.
UC credit limit, CSU
- 155C* ADVANCED BASKETBALL 1 UNIT**
 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.
UC credit limit, CSU
- 170A* BEGINNING SOCCER 1 UNIT**
 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.
UC credit limit, CSU
- 170B* INTERMEDIATE SOCCER 1 UNIT**
 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.
UC credit limit, CSU
- 170C* ADVANCED SOCCER 1 UNIT**
 Prerequisite: None
 Corequisite: None
 Recommended Preparation: ES 170B
 2 hours lecture/laboratory
 Emphasis on advanced individual soccer skills and team play.
UC credit limit, CSU
- 171A* BEGINNING SOFTBALL 1 UNIT**
 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.
UC credit limit, CSU
- 171B* INTERMEDIATE SOFTBALL 1 UNIT**
 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.
UC credit limit, CSU

- 171C* ADVANCED SOFTBALL 1 UNIT**
 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.
UC credit limit, CSU
- 175A* BEGINNING VOLLEYBALL 1 UNIT**
 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.
UC credit limit, CSU
- 175B* INTERMEDIATE VOLLEYBALL 1 UNIT**
 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.
UC credit limit, CSU
- 175C* ADVANCED VOLLEYBALL 1 UNIT**
 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.
UC credit limit, CSU
- 180* SELF DEFENSE FOR WOMEN 1 UNIT**
(formerly ES 195)
 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. *Not open to students with credit in ES 195.*
UC credit limit, CSU
- 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.
UC credit limit, CSU
- 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.
UC credit limit, CSU
- 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
- 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.
UC credit limit, CSU

- 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.
UC credit limit, CSU
- 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.
UC credit limit, CSU
- 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
- 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.
UC credit limit, CSU
- 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
- 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.
UC credit limit, CSU
- 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.
UC credit limit, CSU
- 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
- 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.
UC, CSU
- 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.
UC, 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.
- 254L FIELD EXPERIENCE FOR PERSONAL TRAINERS 1 UNIT**
 Prerequisite: ES 254 with a grade of "C" or "CR" or better
 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.
- 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.
UC credit limit, CSU
- 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.
- 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.
- 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.
- 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.
- 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. **Offered as 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.

UC, CSU, AA/AS GE, IGETC, CSU GE

121 FRENCH II 5 UNITS

(CAN FREN 4; CAN FREN SEQ A = FREN 120+121)

Prerequisite: FREN 120 with a grade of "C" or "CR" or better 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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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 "CR" or better 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.

UC, CSU, AA/AS GE, IGETC, CSU GE

221 FRENCH IV 5 UNITS

(CAN FREN 10; CAN FREN SEQ B = FREN 220+221)

Prerequisite: FREN 220 with a grade of "C" or "CR" or better 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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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. **Offered as 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

120 ELEMENTS OF PHYSICAL GEOGRAPHY

3 UNITS

(CAN GEOG 2)

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Introduction to the fundamental nature and dynamics of the physical world. Special attention given to the interactions within and between the major components of the atmosphere, hydrosphere, lithosphere and biosphere. Topics investigated on a global, regional and local scale include: Earth-Sun relations; weather and climate; soil and vegetation patterns; plate tectonics; volcanic and earthquake related processes; weathering, erosion and mass wasting; analyses of mountain, desert and coastal environments. Global, regional and local environmental concerns will be integrated into topic discussions throughout the course. Local field trips link course materials to real-world phenomena.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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 up to 4 times with different content for a maximum of 4 units.*

CSU

130 HUMAN AND CULTURAL GEOGRAPHY

3 UNITS

(CAN GEOG 4)

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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. **Offered as 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

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.

UC, AA/AS GE, IGETC, CSU GE

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.

Offered as 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: None
 2 hours lecture, 4 hours laboratory

Investigates the digital hardware and software used in fine art and graphic design. Learn how to direct the computer operating system, file management, information storage and software applications as well as how to explore the creative potential and practical aspects of digital media. Topics include file formats, scanning, digital cameras, raster and vector graphics, typography, page layout, printing and utilizing the Web.

CSU

110 BEGINNING GRAPHIC DESIGN 3 UNITS

Prerequisite: None
 Corequisite: None
 Recommended Preparation: None
 2 hours lecture, 4 hours laboratory

Explores the fundamental concepts that make graphic design a form of artistic expression and a vital part of our contemporary society. Basic concepts of design and production are examined using creative problem-solving skills with text and images and emphasizing traditional media. Students investigate the range of career options and begin the development of a professional portfolio.

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 DIGITAL IMAGING 3 UNITS

ABCD Prerequisite: GD 105 with a grade of "C" or better
 Corequisite: None
 Recommended Preparation: None
 2 hours lecture, 4 hours laboratory

Explores capturing images with film, scanners and digital cameras. Images will be creatively edited with raster graphic software to meet both aesthetic and professional needs. Applicable for both fine art and graphic design.

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
- 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.
- 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. **Offered as Credit/No Credit only.**
- 298 SELECTED TOPICS IN GRAPHIC DESIGN 1-3 UNITS**
 Prerequisite: Varies with topic
 Corequisite: Varies with topic
 Recommended Preparation: Varies with topic
 1-9 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. **Offered as Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN GRAPHIC DESIGN 1-3 UNITS**
 Prerequisite: Varies with topic
 Corequisite: Varies with topic
 Recommended Preparation: Varies with topic
 1-9 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

(formerly HED 110)

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.*

UC, CSU, AA/AS GE, CSU GE

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.

CSU, AA/AS GE

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.

UC, CSU

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. **Offered as 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.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

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.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

105 EARLY WESTERN CIVILIZATION 3 UNITS

(CAN HIST 2)

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.

CSU, AA/AS GE, IGETC, CSU GE

106 MODERN WESTERN CIVILIZATION 3 UNITS

(CAN HIST 4)

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.

CSU, AA/AS GE, IGETC, CSU GE

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

Survey of the political, social and cultural development of the early United States with emphasis on the origins of the basic American institutions and ideals, from European contact to Reconstruction.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

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

Survey of the political, social and cultural development of the modern United States, with emphasis on the economic, social and technological changes and the rise of the United States as a world power.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

114 COMPARATIVE HISTORY OF THE EARLY AMERICAS 3 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Western hemisphere (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.

UC, CSU, AA/AS GE, IGETC, CSU GE

115 COMPARATIVE HISTORY OF THE MODERN AMERICAS 3 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Western hemisphere (the Americas) from independence to the present. Emphasis on interactions among Native, European and African cultures. Social, political and economic transformations. Nation building and inter-American relations.

UC, CSU, AA/AS GE, IGETC, CSU GE

118* U.S. HISTORY: THE CHICANO EXPERIENCE 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.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

- 119* U.S. HISTORY:
THE CHICANO EXPERIENCE 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.
UC credit limit, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 130* U.S. HISTORY AND CULTURE I:
NATIVE AMERICAN PERSPECTIVES 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.
UC credit limit, CSU, AA/AS GE, IGETC, CSU GE
- 131* U.S. HISTORY AND CULTURE II:
NATIVE AMERICAN PERSPECTIVES 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.
UC credit limit, CSU, AA/AS GE, IGETC, CSU GE
- 150* U.S. HISTORY: THE
ASIAN-AMERICAN EXPERIENCE I 3 UNITS**
Prerequisite: None
Corequisite: None
Recommended Preparation: None
3 hours lecture
Introductory comparative analysis of the Asian-American experience from 1848 to World War II. Topics include: the origins of the United States Constitution and the political philosophy of its framers; an analysis of the Asian-American perspective; cultural roots, immigration and settlement patterns; labor, legal, political and social history. Emphasis on Chinese-Americans, Japanese-Americans, Filipino-Americans and other groups.
UC credit limit, CSU, AA/AS GE, IGETC, CSU GE
- 151* U.S. HISTORY: THE
ASIAN-AMERICAN EXPERIENCE II 3 UNITS**
Prerequisite: None
Corequisite: None
Recommended Preparation: None
3 hours lecture
Introductory comparative analysis of the Asian-American experience from World War II to the present. Topics include: analysis of the Asian-American perspective; cultural roots, immigration and settlement patterns; labor, legal, political and social history. Emphasis on Chinese-Americans, Japanese-Americans, Filipino-Americans, and recent immigrant groups from Korea and Southeast Asia.
UC credit limit, CSU, AA/AS GE, IGETC, CSU GE
- 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. Traces the development of African-Americans from Africa through the period of Reconstruction.
UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

**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.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

**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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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. **Offered as 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. See "CSU General Education Breadth" under Transfer Information and Degree Requirements for complete requirements.

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, CSU GE, IGETC

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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. **Offered as 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. **Offered as 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. **Offered as 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

050 MATH SKILLS FOR LIFE AND THE WORKPLACE 2 UNITS

Prerequisite: None
 Corequisite: None
 Recommended Preparation: None
 1.5 hours lecture, 1.5 hours laboratory

Concentrates on one or more of the following topics as needed: basic mathematics skills including basic operations with whole numbers, fractions, decimals, percents; basic geometry; basic statistics; and consumer math. Emphasizes the use of computer applications to learn basic math concepts. Calculator skills will be developed as an aid in problem solving. **Offered as Credit/No Credit only. Non-associate degree applicable.**

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. **Offered as 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. **Offered as 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. **Offered as 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. **Offered as 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.
UC credit limit, CSU, AA/AS GE, IGETC, CSU GE
- 125 STRUCTURE AND CONCEPTS OF ELEMENTARY MATHEMATICS I 3 UNITS**
 Prerequisite: MATH 103 or 110 and MATH 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.
UC credit limit, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC credit limit, CSU, IGETC, CSU GE
- 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.
- 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.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

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.

CSU, AA/AS GE, 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 MATH 176.*

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

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 6 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 MATH 176.*

UC credit limit, CSU, AA/AS GE, CSU GE

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

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.*

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

180 ANALYTIC GEOMETRY AND CALCULUS 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.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 280 ANALYTIC GEOMETRY AND CALCULUS 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, IGETC, CSU GE
- 298 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. **Offered as 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.
UC, CSU
- 108- INSTRUMENTAL MUSIC ENSEMBLE 1 UNIT**
109 Prerequisite: Audition
 Corequisite: None
 Recommended Preparation: None
 5 hours lecture/laboratory
 Study and performance of music literature for an ensemble of mixed instruments.
UC, 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU
- 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.
UC, CSU
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, CSU GE, IGETC
- 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.
UC, CSU
- 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.
UC, CSU
- 127 CLASS GUITAR II 2 UNITS**

Prerequisite: MUS 126 with a grade of "C" or "CR" or better 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.

UC, CSU

156- JAZZ ENSEMBLE 1 UNIT

157 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.

UC, CSU

158- CHORUS 1 UNIT

159 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.

UC, CSU

170- CLASS VOICE 2 UNITS

171 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.

UC, 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.

208- INSTRUMENTAL MUSIC ENSEMBLE 1 UNIT

209 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.

UC, CSU

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.

UC, CSU

226 CLASS GUITAR III 2 UNITS

Prerequisite: MUS 127 with a grade of "C" or "CR" or better 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.

UC, CSU

227 CLASS GUITAR IV 2 UNITS

Prerequisite: MUS 226 with a grade of "C" or "CR" or better 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.

UC, CSU

256- JAZZ ENSEMBLE 1 UNIT

257 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.

UC, CSU

258- CHORUS 1 UNIT

259 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.

UC, CSU

270- CLASS VOICE 2 UNITS

271 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.

UC, 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. **Offered as 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

OCEANOGRAPHY**112 INTRODUCTION TO OCEANOGRAPHY 3 UNITS**

(formerly SCI 112)

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.*

UC, CSU, AA/AS GE, IGETC, CSU GE

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. **Offered as 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 gives 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.
UC, CSU
- 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.
UC, CSU
- 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 parks, residential and commercial projects. Studies of color, texture, form and use of landscape material. Emphasis on selection and placement of plant material, walks, patios and other structures for landscape use. Consideration also given to proper site layout with regard to existing elevations. 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
- 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. *Only offered at Southwestern College. Student must enroll at Southwestern College and register for LA 200.*
CSU
- 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.

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 up to 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. **Offered as 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 111 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 up to 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. **Offered as 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. **Offered as Credit/No-Credit only. Non-associate degree applicable.**

103 STANDARDIZED TEST PREPARATION 1 UNIT

Prerequisite: None
Corequisite: None
Recommended Preparation: None

1 hour lecture

How to prepare for standardized tests such as SAT, ACT, etc. Includes information on test taking, math preparation and English preparation. **Offered as Credit/No Credit only. Non-associate degree applicable.**

114 BASIC SKILLS PRACTICUM 1 UNIT

Prerequisite: None
Corequisite: None
Recommended Preparation: None

1 hour lecture

Lecture, discussion and practicum course designed to support academic success in college. Students will be given diagnostic tests at the beginning of the course to establish a personal plan for improvement. The lecture portion will provide the basic information needed to increase library competence. Library skills will also be developed via research. Students will work on their own projects or ones that support their goals. **Offered as Credit/No Credit only. Non-associate degree applicable.**

115 BASIC SKILLS PRACTICUM 2 UNITS

Prerequisite: None
Corequisite: None
Recommended Preparation: None

2 hours lecture

Lecture, discussion and practicum course designed to support academic success in college. Students will be given diagnostic tests at the beginning of the course to identify areas of growth and establish a personal plan for improvement. Emphasis on math improvement, English and writing improvement and beginning computer skills. One-to-one tutoring, cooperative learning and individual study will be utilized. **Offered as Credit/No Credit only. Non-associate degree applicable.**

116 BASIC SKILLS PRACTICUM 3 UNITS

Prerequisite: None
Corequisite: None
Recommended Preparation: None

3 hours lecture

Lecture, discussion and practicum course designed to support academic success in college. Students will be given diagnostic tests at the beginning of the course and will be assessed in the area of library skills. Areas of growth will be identified and a personal plan for improvement will be established. Emphasis on math improvement, English and writing improvement, library skills and beginning computer skills. One-to-one tutoring, cooperative learning, group projects and individual study will be utilized. **Offered as 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.*

UC, CSU, CSU GE

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

Prepares students to adjust to the academic community by learning to study effectively in given time limitations. Emphasizes time management, textbook mastery, research skills, goal-setting, note-taking and memory. **Offered as Credit/No Credit only.**

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.

228 LEADERSHIP DEVELOPMENT: THEORIES OF LEADERSHIP 2 UNITS**229 LEADERSHIP DEVELOPMENT: POWER AND AUTHORITY 2 UNITS****230 LEADERSHIP DEVELOPMENT: COMMUNICATION SKILLS 2 UNITS****231 LEADERSHIP DEVELOPMENT: LEADERSHIP CHARACTERISTICS 2 UNITS**

Prerequisite: None
 Corequisite: None
 Recommended Preparation: None
 1 hour lecture, 3 hours laboratory

Provides an opportunity for students to study various styles of leadership and group dynamics within the context of their own campus involvement. Structured in-class experiences combined with selected on-campus activities comprise the content of the courses.

CSU

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. **Offered as 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. **Offered as 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. **Offered as Credit/No Credit only. Non-associate degree applicable.**

090 LEARNING STRATEGIES PRACTICUM ABCD 1 UNIT

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. **Offered as 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. **Offered as Credit/No Credit only. Non-associate degree applicable.**

**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. **Offered as 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.

UC, CSU, AA/AS GE, IGETC, CSU GE

115 HISTORY OF PHILOSOPHY I 3 UNITS

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

117 HISTORY OF PHILOSOPHY II 3 UNITS

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, CSU GE

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.

UC, AA/AS GE, CSU GE, CSU

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.

UC, CSU, AA/AS GE, IGETC, CSU GE**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.

UC, CSU, AA/AS GE, IGETC, CSU GE**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. **Offered as 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 EDUCATION****(SEE EXERCISE SCIENCE)****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.

UC credit limit, CSU, IGETC, CSU GE**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.

UC, CSU, IGETC, CSU GE**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. **Offered as 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.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

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.*

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

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.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

130 FUNDAMENTALS OF PHYSICS 4 UNITS

Prerequisite: MATH 180 or concurrent enrollment
 Corequisite: None
 Recommended Preparation: None

3 hours lecture, 3 hours laboratory

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 this course.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

131 FUNDAMENTALS OF PHYSICS 4 UNITS

Prerequisite: PHYC 130, MATH 180

Corequisite: None
 Recommended Preparation: None

3 hours lecture, 3 hours laboratory

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 this course.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

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.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

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.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

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.

UC credit limit, CSU, AA/AS GE, IGETC, CSU GE

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.

Offered as 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.

UC, CSU, AA/AS GE, IGETC, CSU GE

121* INTRODUCTION TO U.S. GOVERNMENT AND POLITICS 3 UNITS

(CAN GOVT 2)

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Introduction to the basic structure and functions of the U.S. political system. The question of "who governs?" will be studied from various theoretical perspectives. Examined will be the basis of the U.S. political system including the Constitution, federalism, capitalism and democracy. The policy-making role of traditional political institutions such as the media, the bureaucracy and special interests will be explored. All topics will be illustrated through reference to actual political events occurring as the course progresses.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, IGETC, CSU GE

140* INTRODUCTION TO CALIFORNIA GOVERNMENT AND POLITICS 3 UNITS

Prerequisite: None

Corequisite: None

Recommended Preparation: POSC 121

3 hours lecture

Study of the principal features, organization and operation of state and local government within the framework of U.S. federalism. Emphasis on California state and local governments and contemporary political issues.

CSU, AA/AS GE, 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. **Offered as 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

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

*Meets part of the American Institutions requirement. See "CSU General Education Breadth" under Transfer Information and Degree Requirements for complete requirements.

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.

UC, CSU, AA/AS GE, IGETC, CSU GE**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.

UC, CSU, AA/AS GE, IGETC, CSU GE**170 ABNORMAL PSYCHOLOGY 3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

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.

UC, CSU, AA/AS GE, IGETC, CSU GE**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 3 UNITS*(CAN PSY 6)*

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.

UC credit limit, CSU, AA/AS GE, CSU GE**220 LEARNING 3 UNITS**

Prerequisite: None

Corequisite: None

Recommended Preparation: None

3 hours lecture

Examination of the basic principles and research in animal and human learning.

UC, CSU, AA/AS GE, IGETC, CSU GE**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.

Offered as 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**
(formerly RE 198)
 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 up to 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 1-3 UNITS**
 Prerequisite: Varies with topic
 Corequisite: Varies with topic
 Recommended Preparation: Varies with topic
 1-9 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. **Offered as Credit/No Credit only. Non-associate degree applicable.**
- 299 SELECTED TOPICS IN REAL ESTATE 1-3 UNITS**
 Prerequisite: Varies with topic
 Corequisite: Varies with topic
 Recommended Preparation: Varies with topic
 1-9 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.
CSU

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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE
- 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.
UC, CSU, AA/AS GE
- 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. **Offered as 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

SCIENCE**(SEE OCEANOGRAPHY)****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.

UC, CSU, AA/AS GE, IGETC, CSU GE**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.

UC, CSU, AA/AS GE, IGETC, CSU GE**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.

UC, CSU, AA/AS GE, IGETC, CSU GE**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. **Offered as 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

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.*

UC credit limit, CSU, AA/AS GE, CSU GE

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.*

UC credit limit, CSU, AA/AS GE, CSU GE

121 SPANISH II 5 UNITS

(CAN SPAN 4; CAN SPAN SEQ A = SPAN 120+121)

Prerequisite: SPAN 120 with a grade of "C" or "CR" or better 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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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. **Offered as 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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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.

UC, CSU, AA/AS GE, CSU GE

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 "CR" or better 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 221 SPANISH IV 5 UNITS**
(CAN SPAN 10; CAN SPAN SEQ B = SPAN 220+221)
 Prerequisite: SPAN 220 with a grade of "C" or "CR" or better 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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.
UC, CSU, AA/AS GE, IGETC, CSU GE
- 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. **Offered as 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

SPEECH COMMUNICATION

(SEE COMMUNICATION)

SURVEYING

SURVEYING (ENGINEERING) COURSES

- 218 PLANE SURVEYING 4 UNITS**
 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.*
UC, CSU
- 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.*
UC, CSU

THEATRE ARTS

110 INTRODUCTION TO THEATRE 3 UNITS

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.

UC, CSU, AA/AS GE, IGETC, CSU GE

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. **Offered as 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 BASIC 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 up to 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. **Offered as 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.

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.

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. **Offered as 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.



*Cuyamaca College...
Growing for Your Future*



Administration and Faculty Processional, 2003 Commencement



Spring 2004 Staff Development Convocation

Faculty, Administration and Classified Personnel

Faculty and Administration

- AGOSTO, DAVID** Vice President,
B.S., University of San Diego **Student Development**
M.A., San Diego State University **and Services**
- APPENZELLER, BETH** Dean, Admissions
B.A., San Diego State University **and Records**
M.Ed., University of San Diego
Ph.D., Claremont Graduate University &
San Diego State University
- ASHER-FITZPATRICK, MARY** Learning Disabilities
B.A., San Diego State University **Specialist, DSPS**
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
- BALEGH, MOHAMMED SALAH** Biology
B.S., University of Cairo
M.S., University of Cairo
Ph.D., Washington 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,
B.A., University of California, Los Angeles **Sociology**
M.A., The George Washington University
Ed.D., University of Southern California
- BOWYER, CATHERINE** Athletics Director,
B.A., San Diego State University **Exercise Science**
M.A., San Diego State University
- BRANTON, CHRISTOPHER** Automotive Technology,
A.S., Grossmont College **GM ASEP Program**
- BRAZIL, LINDY** English
B.A., University of California, Irvine
M.A., Claremont Graduate School
- CARDENAS, EZEQUIEL** Spanish
B.A., San Diego State University
M.A., San Diego State University
Ph.D., University of Colorado
- CARMONA, PAUL** Humanities, Philosophy,
B.A., Loyola University of Los Angeles **Religious**
M.Mus., University of Southern California **Studies**
Ph.D., Catholic University of Louvain, Belgium
- CHANDLER, TED** Computer and Information Science
B.S., Northrop Institute of Technology (Caltech)
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,
B.A., San Diego State University **Instruction**
M.A., University of California, San Diego
Ed.D., University of San Diego
- CHOU, PEI HUA** Associate Dean, Learning Resources
B.A., Tunghai University, Taiwan, China
M.A., University of Denver
Ed.D., University of Southern California
- 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,
B.A., University of Southern California **Business Law,**
M.B.A., California State University, **Entrepreneurship**
Dominguez Hills
- DETWILER, DAVID** Spanish
B.A., Oregon State University
M.A., San Diego State University
- 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,
B.A., San Diego State University **Health Education,**
M.A., San Diego State University **Exercise Science**
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,
A.S., Cuyamaca College **Ford ASSET Program**
- GOMEZ, GREGORY** EOPS 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
- HAIJ, DONNA ENDICOTT** Counselor
B.S., Christian Heritage College
M.A., National University
- 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/
B.A., California College of Arts EOPS Counselor
M.Ed., United States International University
Counseling Cert., University of California, San Diego
- INGRUM, KATHRYN** Child Development
B.A., San Diego State University
M.A., San Diego State University
Ed.D., University of Southern California
- 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
- KALLMEYER MARJIE** Counselor
B.A., San Diego State University
M.Ed., University of San Diego
- 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** Counselor,
B.A., San Diego State University Articulation Officer
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
- MENESES, EVANGELINE** Dean, Counseling and
B.A., California State University, Sacramento Matriculation
M.S.W., California State University, Sacramento
- MONROE, BRADFORD** Ornamental Horticulture,
B.S., California State University, Fresno Water/Waste-
M.S., National University water Technology
- 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
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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
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M.B.A., San Diego State University
- POWELL, O. YVONETTE** DSPS/EOPS Counselor,
B.S., San Diego State University DSPS Coordinator
M.S.W., San Diego State University
Ed.D., University of San Diego
- 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,
B.A., Long Beach State University Continuing
B.F.A., Eastern Washington University Education
M.A., Eastern Washington University & Special
Ph.D., Washington State University Programs
- RANEY, DAVID** Computer and Information Science
B.S., National University
M.S., National University
- REED, JODI** Computer and Information Science,
B.S.Ed., University of Arizona Graphic Design
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,
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M.S., San Diego State University
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M.A., University of California, Los Angeles

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B.A., California State University, San Bernardino
M.A., California State University, San Bernardino

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J.D., Thomas Jefferson School of Law

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M.A., Temple University

SHERWOOD, LAWRENCE **Librarian**

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M.L.S., University of California, Berkeley
C.A.S., University of California, Berkeley

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M.B.A., San Diego State University
C.P.A., California

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M.S., National University

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Ph.D., Walden University

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M.S., San Diego State University

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M.A., San Diego State University

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M.A., Southern Illinois University
Ph.D., Washington State University

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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

WEEDON, M. THERESE **CADD Technology**

M.S., Polytechnic Institute, Warsaw
M.A., San Diego State University
A.I.A. Member

WEINERT, STEPHEN **Psychology**

B.A., San Diego State University
M.A., San Diego State University

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B.A., University of Oregon
M.L.S., University of Washington

WIER, NANETTE **Communication**

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M.A., San Diego State University

WOJTKOWSKI, ROBERT **Exercise Science**

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M.A., San Jose State University

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M.A., San Jose State University
Ed.D., University of San Francisco

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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

AKERS, ROBERT Network/Computer Equipment Technician	COLE, LEONITA Administrative Assistant
ALVARADO, PEDRO Custodian, Sr.	CONNOLLY, LYMAN Athletics Trainer
ALVAREZ, CHERYL Clerical Assistant	CONTRERAS, RAY General Maintenance Worker, Sr.
ARREOLA, LUZ Community Learning Assistant	CONTRERAS, STEVEN Athletic Facilities Technician
ASBURY, NANCY Administrative Secretary	COOPER, JOANN Instructional Lab Assistant, Int.
ATEEK, VANESSA Admissions & Records Assistant	COSSANO, MARK Multi-Media Assistant
AUBOL, VAL Admissions & Records Specialist	COSTA, ERNIE Custodian
BAILEY, PATRICIA Clerical Assistant	CRABTREE, SUSAN Account Clerk, Sr.
BALL, SHARI Secretary/Scholarship Specialist	DALTON, GREGORY Ornamental Horticulture Assistant II
BARNES, RICHARD Instructional Technology Supervisor	DEHAVEN, DAVID Custodian
BARTHOLOMEW, HELEN Health Services Nurse	DIBELLA, LISA Evaluations Advisor
BEASLEY, SANDRA Learning Resources Specialist	DOLLAR, GAYDEEN Clerical Assistant, Sr.
BIESEL, LINDA Account Clerk, Sr.	DUBORD, MARTIN Grounds Maintenance Worker, Sr.
BRAAKSMA, SHERRI Instructional Computer Lab Technician	EDWARDS, CATHY Multi-Media Technician, Sr.
BREEDLOVE, JERRY Network Specialist	ESPIRITU, SAL General Maintenance Worker, Sr.
BROWN, LAURIE Career & Job Development Services Supervisor	FAVRO, RITA Admissions & Records Specialist
BURAK, JOAN Instructional Operations Supervisor	FLEMING, PAM Financial Aid Advisor
BUSH, POPPY Student Services Specialist	FRANCIS, DAVID Desktop Publishing Specialist
CALLEROS, SILVESTRE Custodian	FRANCO, ROSENDO Custodian
CALLIAN, FRANCESCA Test Proctor	FRANKLIN, SHANETTE Clerical Assistant
CAMP, DUANE Automotive Technology Technician	GALARNEAU, JANE Clerical Assistant, Sr.
CARROLL, TERRY Custodial Supervisor	GEOOLA, FARAMARZ Computer Lab Assistant

- GILSON, NEDA**
Child Development Center Assistant, Sr.
- GODINEZ, MARCIA**
Chemistry Technician, Sr.
- GONZALES, MAGDALENE**
Student Services Specialist, Career Center
- GRECO, VICKI**
Child Development Center Aide
- GREER, LINDA**
Athletics Trainer
- GRIMES, KEN**
Administrative Secretary
- HAMLETT, SHARRON**
Administrative Secretary
- HARP, LINDA**
Printing Operations Assistant, Sr.
- HEIMASTER, JOHN**
Grounds Supervisor
- HERNANDEZ, DANIEL**
Financial Aid Advisor
- HERNANDEZ, JACQUELINE**
Assistant Bookstore Manager
- HOK, NORA**
Financial Aid Assistant
- HOUSTON, CHERYL**
Administrative Secretary
- HUBER, REBECCA**
Bookstore Purchasing Assistant
- JOHNEY, PATRICIA**
Child Development Center Aide
- KAPCHINSKY, SVETLANA**
Student Services Specialist
- KEW, DIANE**
Instructional Lab Assistant, Int.
- KNOX, KAREN**
Clerical Assistant
- KRAUSIE, OLIVIA**
Admissions & Records Assistant, Sr.
- KRAWTSCHENKO, JOAN**
Test Proctor
- LAKE, JUANA**
Student Services Specialist
- LAWLESS, PAM**
Administrative Secretary
- LEE-CRISTALDI, BIANCA**
Communications Equipment Operator
- LEE-CRISTALDI, DONNA**
Administrative Secretary
- LEWIS, JASON**
College Cashier
- LOPEZ, OMAR**
Instructional Lab Assistant
- LYONS, JOHN**
Instructional Lab Assistant
- MCCOY, KAREN**
Clerical Assistant
- MEEK, KATHERINE**
Computer Lab Assistant
- MEESE, BARBARA**
High School and Community Relations Coordinator
- MILLER, DEBRA**
Administrative Secretary, Sr.
- MODICA, BARBARA**
Secretary
- MOEBUS, BILL**
General Maintenance Worker
- MONCE, ROSE**
Master Class Scheduler
- MONTEZ, NICHOLAS**
Admissions & Records Specialist
- MORRE, ELIZABETH**
Child Development Center Aide
- MOSA, NICOLE**
Instructional Lab Assistant, Int.
- NEY, JIM**
Graphics Coordinator
- NGHIEM, BARBARA**
Assistant College Cashier
- NGUYEN, PHU MANH**
Instructional Media Services Technician
- NOBLE, TERRI**
Multi-Media Technician
- NOLAN, SANDRA**
Learning Skills Specialist
- OLSON, DONNA**
Physical & Natural Sciences Technician
- PERRY, NANCY**
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- PERRY, REINE**
Bookstore Purchasing Assistant
- PHOENIX, SANDRA**
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- QUINZII, ANNA**
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- RECKTENWALD, JAN**
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REYES-SMITH, JUDI
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RIDLEY, ALAN
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RILEY, SCOTT
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ROSE, RAYMOND
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SHARP, ANN
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SHINKAN, JUDY
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SILVA, PAUL
General Maintenance Worker

SKOGLUND, NANCY
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SMITH, MARCELLA
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SOUZA, JOE
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Communications Equipment Operator

STEPHENSON, PATTY
Clerical Assistant

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Administrative Secretary, Sr.

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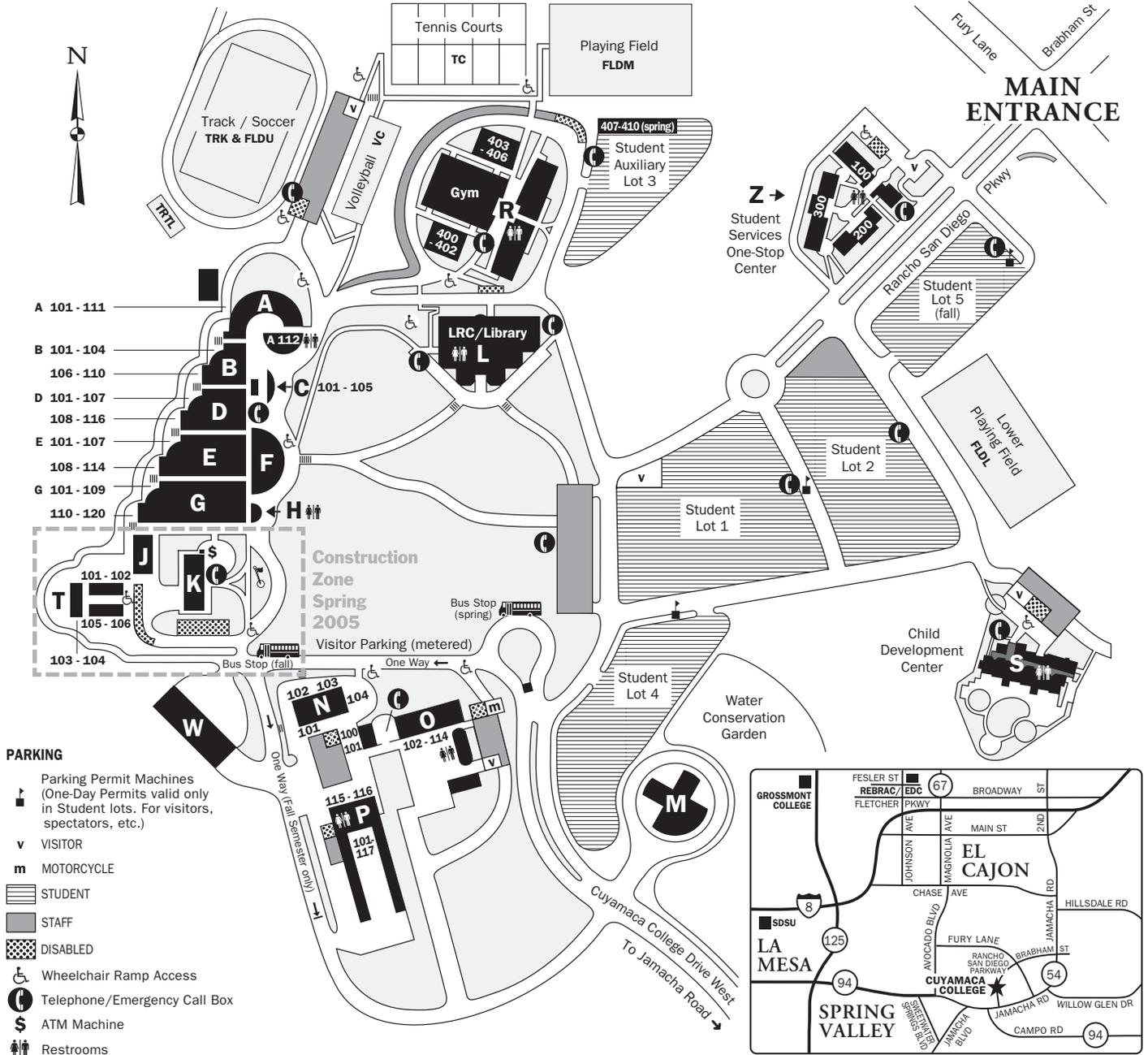
PHOTOGRAPHY

Phu Manh Nguyen

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CUYAMACA COLLEGE

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Adjunct Faculty Office - A Bldg
 Administration - F Bldg
 Admissions & Records - Z Bldg
 Assessment Center - Z Bldg
 Automotive Technology - P Bldg
 Bookstore - K Bldg
 CalWORKs at Cuyamaca College - Z Bldg
 Campus Activities - J 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) - K Bldg
 General Tutoring Center - L Bldg
 Grounds - W Bldg
 Gym - R Bldg
 Health & Wellness Center - A Bldg
 Heritage of the Americas Museum - M Bldg
 High School & Community Relations - Z Bldg
 Information - Z Bldg
 Library (LRC) - L Bldg
 Mailroom - F Bldg
 Maintenance - W Bldg
 Math Study Center - N Bldg

Nursery (Plant Sales) - O Bldg
 Operations - C Bldg
 Ornamental Horticulture - O Bldg
 Public Safety - Z Bldg
 REBRAC/EDC - 500 Fesler St, Suite 102, El Cajon
 Student Affairs - Z Bldg
 Student Center - J Bldg
 Switchboard - Z Bldg
 Teaching & Learning Center (TLC) - L Bldg
 Transfer Center - Z Bldg
 Veterans Services - Z Bldg
 Warehouse/Receiving - W Bldg
 Writing Lab - G Bldg
 Word Processing (Faculty Support Services) - F Bldg

Cuyamaca College...

Growing for Your Future
New Facilities Planned for 2004-2008



Communication Arts Center
Construction begins Summer 2005



Student Center
Construction begins Fall 2005



Automotive Technology Complex
Remodel begins Summer 2004



Business/CIS
Construction begins Spring 2007
Building renditions & dates subject to change

