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Welcome to Cosumnes River College.

Since its founding in 1970, the faculty and staff at Cosumnes River College have made every effort to ensure student success. After two years with us, you will leave well prepared for the workforce or ready to continue your education at a four-year college or university.

While here, you will find a wide variety of quality programs and services. At Cosumnes River College, you will find several degree and certificate programs you won’t find on any other regional community college campus, including Veterinary Technology, Medical Assisting and Architecture. Our new technology gives you several ways to take the classes you’ll need to succeed. You can enroll in traditional classroom courses, on-line courses, or take advantage of our numerous televised courses. Our distance learning program is so advanced, you can even participate in classroom discussion from home!

Throughout the years, Cosumnes River College has been a leader in providing educational programs that successfully prepare students for transfer to four-year colleges or universities. Staff in our Transition Center will work with you to make the transfer as smooth as possible. Many of our programs also prepare students for employment or service to the community.

Students love the friendly atmosphere on our small campus and continue to come back after graduation. Our many social and cultural activities encourage students to make friends and forge lifetime networks.

Whether you are preparing for transfer to a university, for the workforce, or upgrading your skills, Cosumnes River College provides the opportunity for success. This catalog will serve as an important resource for you as a student on our campus. Use it along with your class schedule and Student Guide as your handbook for college life.

Best wishes,

Merrilee R. Lewis
President
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**LOS RIOS COMMUNITY COLLEGE DISTRICT**

1919 Spanos Court  
Sacramento, CA 95825

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**Cover Design:** Phillips Design and Andrea Takeda
SUMMER SESSION 2000 CALENDAR
June 5, 2000 (Monday) - July 27, 2000 (Thursday)

March 1 - June 5  _____ Continuing students file Supplemental Data Sheet (Required for Fall 2000)
New / Former & Transfer students file Application and Supplemental Data Sheet

May 8 - 21  _________ PRIORITY 1 REGISTRATION (Telephone or In-Person)
(Continuing & New Matriculated Students)

May 22 - 28  _________ PRIORITY 2 REGISTRATION (Telephone or In-Person)
(New Non-Matriculated, Transfer & Former Students)

May 29  ____________ HOLIDAY - Memorial Day

May 30 - June 4  _______ Due to posting of spring grades, TES will be down.

June 5 (Mon.)  _________ INSTRUCTION BEGINS for 4-, 6-, and 8-week classes

June 9  ____________ Last Day to Drop without incurring enrollment fees for 4-, 6-, and 8-week classes
Last Day to file Refund for parking fees.

June 12  ____________ Last Day to Drop Without Notation on Record for 4-week classes
Last Day to file Credit/No Credit (CR/NC) for 4-week classes

June 14  ____________ Last Day to Drop without Notation on Record for 6-week classes
Last Day to file Credit/No Credit (CR/NC) for 6-week classes

June 16  ____________ Last Day to petition for August Graduation / Certificates

June 20  ____________ Last Day to Drop without a notation on record for 8-week classes
Last Day to file Credit/No Credit (CR/NC) for 8-week classes

June 22  ____________ Last Day to Drop with "W" grade for 4-week classes

June 29  ____________ Final Examinations and END of 4-week classes

July 4  ____________ HOLIDAY - Independence Day

July 7  ____________ Last Day to Drop with "W" grade for 6-week classes

July 13  ____________ Final Examinations and END of 6-week classes

July 18  ____________ Last Day to Drop with "W" grade for 8-week classes

July 27 (Thurs.)  _________ FINAL EXAMINATIONS and END OF SUMMER SESSION: 8-week classes
Last Day to submit Refund application for Summer 2000 classes

August 5 - 6  _________ Due to the posting of summer grades, TES will be down

August 14  ___________ FALL 2000 SEMESTER CLASSES BEGIN (NOTE: registration dates on next page)

REVISION OF REGULATIONS

The Los Rios Community College District and Cosumnes River College have made every reasonable effort to determine that everything stated in this catalog is accurate. Courses and programs offered, together with other matters contained herein, are subject to change without notice by the Administration of the Los Rios Community College District and Cosumnes River College for reasons related to student enrollment, level of financial support, or for any other reason, at the discretion of the District and the College. The District and the College further reserve the right to add, amend, or repeal any of their rules, regulations, policies, and procedures.
FALL SEMESTER 2000 CALENDAR
August 14, 2000 (Monday) - December 15, 2000 (Friday)

March 1 - Aug. 11 _____ Continuing students file Supplemental Data Sheet (Required for Fall 2000)
                     New / Former & Transfer students file Application and Supplemental Data Sheet

May 8 - 21 __________ PRIORITY 1 REGISTRATION - (Telephone or Walk-In) (Continuing & New Matriculated Students)
May 22 - 28 __________ PRIORITY 2 REGISTRATION - (Telephone or Walk-In)
                     (New Non-Matriculated, Transfer & Former Students)

May 30 - Aug. 11 _____ OPEN REGISTRATION (Telephone or Walk-In) (All Students)

August 5 - 6 ______ Due to posting of Summer grades, TES will be down.

August 14 (Mn.) ___ INSTRUCTION BEGINS - FALL SEMESTER

Aug. 14 - 26 _____ Late Registration for classes still open/available (by telephone & In-Person)
August 19 __________ Last Day to Add 1st 9-week classes
                     Last Day to Drop without incurring enrollment fees for 1st 9-week classes
August 25 __________ Last Day to Drop without incurring enrollment fees for Full semester classes
                     Last Day to file Refund for parking permits

September 1 _______ Last Day to Drop without notation for 1st 9-week classes
                     Last Day to Petition for Credit/No-Credit (CR/NC) 1st 9-week classes

September 4 ________ HOLIDAY - Labor Day

September 8 _________ Last Day to Drop without notation Full semester classes

Sept. 11 - Oct. 21 _____ Registration continues for late starting classes

September 15 _______ Last Day to Petition for Credit/No Credit (CR/NC) for Full semester classes

September 29 ________ Last Day to Petition for December Graduation / Certificates
                     Last Day to Drop with "W" grade for 1st 9-week classes

October 13 __________ Mid Term Grade Reports Due (Full Semester)

October 15 __________ End of 1st 9-week classes

Oct. 16 (Mn.) _______ INSTRUCTION BEGINS for 2nd 9-week classes

October 21 __________ Last Day to Add 2nd 9-week classes
                     Last Day to Drop without incurring enrollment fees for 2nd 9-week classes

November 3 __________ Last Day to Drop without notation for 2nd 9-week classes
                     Last Day to Petition for Credit/No Credit (CR/NC) 2nd 9-week classes

November 10 _________ HOLIDAY - Veteran's Day

November 17 _________ Last Day to Drop with "W" grade for Full semester classes

November 23 - 24 ___ HOLIDAY - Thanksgiving Recess

December 1 __________ Last Day to Drop with "W" grade for 2nd 9-week classes

December 9 - 15 _____ Final Examinations--Days -- On Campus Classes

Dec. 15 (Thurs.) _____ END OF SEMESTER
                     Last Day to submit Refund application for Fall 2000 classes.

Dec. 18 - 29, 2000 - ___ HOLIDAY - Winter Recess ~(Classes are not in session, but college offices may be open)

Jan. 2 - 10, 2001 _____ SEMESTER BREAK ~(Classes are not in session, but college offices may be open)
January 16 __________ SPRING 2001 SEMESTER CLASSES BEGIN( NOTE: registration dates on next page)
SPRING SEMESTER 2001 CALENDAR
January 16, 2001 (Tuesday) - May 23, 2001 (Wednesday)

Sept. 4 - Jan. 16 ______ New / Former & Transfer students file Application and Supplemental Data Sheet

Nov. 27 - Dec. 10 ______ PRIORITY 1 REGISTRATION (Telephone or Walk-In) (Continuing & New Matriculated Students)

December 11-15 ______ PRIORITY 2 REGISTRATION (Telephone or Walk-In)
(New Non-Matriculated, Former, & Transfer Students)

Dec. 21-Jan. 12 ______ OPEN REGISTRATION (by telephone or Walk-In) (All Students)

January 11 - 12 ______ INSTRUCTION IMPROVEMENT DAYS

January 15 __________ HOLIDAY- Martin Luther King’s Birthday

Jan. 16 (Tues.) ______ INSTRUCTION BEGINS — SPRING SEMESTER

January 16 - 22 ______ Late Registration for classes still open/available (by telephone or In-Person)

January 22 _______ Last Day to Add 1st 9-week classes

January 29 _______ Last Day to Drop without incurring enrollment fees for 1st 9-week classes

January 29 _______ Last Day to File Refund for Parking Permit

February 4 _______ Last Day to Drop without notation on record for 1st 9-week classes

February 11 ______ Last Day to Drop without notation on record for Full semester classes

February 16 ______ HOLIDAY- Lincoln’s Birthday

February 19 ______ HOLIDAY- Washington’s Birthday

Feb. 14 - Mar. 23 _____ Registration continues for late starting classes

February 20 _______ Last Day to petition for Credit/No-Credit (CR/NC) for Full semester classes

March 2 _______ Last Day to Drop with a "W" grade for 1st 9-week classes

March 16 _______ Mid-term Grade Reports Due (Full Semester)

March 16 _______ Last Day to petition for May Graduation / Certificates

End of 1st 9-week classes

March 19 (Mon.) ______ INSTRUCTION BEGINS for 2nd 9-week classes

March 25 _______ Last Day to Add 2nd 9-week classes

March 25 _______ Last Day to Drop without incurring enrollment fees for 2nd 9-week classes

April 8 _______ Last Day to Drop without notation on record for 2nd 9-week classes

April 8 _______ Last Day to petition for Credit/No-Credit (CR/NC) for 2nd 9-week classes

April 9 - 13 _______ SPRING RECESS

April 29 _______ Last Day to Drop with a "W" grade for Full semester classes

May 13 _______ Last Day to Drop with a "W" grade for 2nd 9-week classes

May 17 - 23 ______ Final Examinations - Day - On-Campus Classes

May 23 (Wed.) ______ END OF SEMESTER / Commencement

May 23 _______ HOLIDAY- Memorial Day

May 28 _______ HOLIDAY- Memorial Day

May 28 _______ Last Day to submit Refund Application for Spring 2001 classes

May 28 _______ Last Day to petition for May Graduation / Certificates

End of 2nd 9-week classes

May 28 _______ Last Day to petition for May Graduation / Certificates

May 28 _______ Last Day to Drop with a "W" grade for Full semester classes

May 29 _______ Last Day to Drop with a "W" grade for 2nd 9-week classes

May 29 _______ Last Day to Drop with a "W" grade for 1st 9-week classes

May 29 _______ Last Day to Submit Refund Application for Spring 2001 classes

May 29 _______ Last Day to petition for May Graduation / Certificates

End of Spring Semester

*June 4, 2001 ______ Summer Session Classes Begin

*Summer session 2001 start date tentative as of this publication’s date
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ABOUT THE COLLEGE

Since its founding in 1970, Cosumnes River College has lived by this motto: “commitment, quality, and innovation.”

- **Commitment** to meeting our community’s needs
- **Quality** programs and services for students
- **Innovative** teaching techniques and state-of-the-art equipment

CRC is located near the southern edge of Sacramento, at the heart of some of the city’s fastest-paced suburban development.

The college’s outreach program at its Folsom Lake and El Dorado centers serves the outlying population along the Highway 50 corridor, as well as residents of El Dorado County (see page 5).

Partnerships with local, state and national business, industry and organizations offer our students the best in educational programs and facilities.

**Purpose and Mission:** CRC's commitment to the community is stated in its purpose and mission. The college is a learning organization which values and focuses on students. CRC envisions a holistic teaching/learning environment for students and employees, with a full range of support services, with integrated curriculum and staff development opportunities. CRC values the opportunity for all members of its learning community to grow to their maximum potential and to contribute to the well-being of the college and of the larger society. CRC believes in the value of internal and external accountability, to determine whether its programs and services are having the desired outcomes, and how to continuously improve them.

CRC’s primary mission includes transfer, general and occupational education so that CRC students are well-equipped for success in higher education, employment and citizenship skills.

The primary function of education is to pass from one generation to the next the knowledge and skills necessary to help understand our world. CRC provides many types of education to meet a variety of student, staff and community needs:

**General Education:** The college is committed to the principle of providing a broad general education that includes: Natural Science, Social and Behavioral Sciences, Humanities and the Arts, and Language and Critical Thinking. The college continues to offer other courses that enhance life-long learning and prepare students for the needs and demands of everyday life. All these skills help create a balanced life in a democratic society that is diverse in its social, cultural, and educational backgrounds.

**Transfer Education:** Many courses are designed to enable students to fulfill the transfer requirements of four-year colleges and/or universities, particularly those in the UC and CSU systems. College staff is continually developing lower division educational programs that parallel the first- and second- year courses of those institutions. (See page 13).

**Occupational Education:** These programs and courses are designed to prepare students for employment in business and industry, or to improve their current job skills.

**Basic Skills Education:** Courses designed to assist students who are deficient in the basic skills of reading, writing, speaking and analyzing are offered in several non-degree applicable programs.

**Continuing Education:** These services are designed for anyone interested in the courses and programs offered by the college.

**Contract Education /Contract Training** Customized courses (on-site or off) for Sacramento area businesses, governmental agencies and professional organizations, both credit and non-credit, are now offered in cooperation with Los Rios District’s Training Source. For more information about these offerings, see page 5.

**Staff Development:** CRC promotes quality and innovation in its faculty and staff by offering activities designed to further enhance classroom instruction and quality of service, which include “Flex Days” instructional activities, as well as on-going training sessions for faculty and staff.

**Community Education:** These programs are designed to respond to community needs and expectations with auxiliary programs such as: credit and non-credit classes; workshops; lecture and film series; concerts; art exhibits; television courses; continuing education courses; community services classes; and specially-funded projects.

In addition to academic courses and programs, CRC offers a number of support services to assist students in achieving academic success, including:

**Matriculation:** Matriculation services are designed to enhance the student’s ability to achieve his/her educational goals. Matriculation encompasses an admission process, pre-enrollment assessment, counseling and an orientation to college programs, services and procedures. (See pages 6-7).

**Counseling** A variety of counseling services are available to help students realize their academic, career and personal goals. Seeing a professional counselor can be helpful in clarifying issues and exploring options. (See page 10).

**Career Services:** Career and job services are available in the "one stop" Transition Center. Students may research careers or educational programs and receive assistance with career-related activities. (See page 13).

**ACCREDITATION**

Cosumnes River 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. In addition, the Automotive Mechanics Technology program is certified by the National Automotive Technician Education Foundation in all eight areas of Automotive Service Excellence. The Veterinary Technology program has been accredited by the American Veterinary Medical Association, and the Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Committee on Accreditation for Medical Assistant Education. The Health Information Technology program is also accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in cooperation with the Council on Accreditation of the American Health Information Management Association. The University of California, California State University system, and all other accredited colleges and universities give full credit for appropriate courses completed at Cosumnes River College. The college holds institutional memberships in the American Association of Community and Junior Colleges and the Community College League of California.

The Los Rios Community College District and Cosumnes River College does not discriminate on the basis of race, color, marital status, religion, sexual orientation, national origin, sex, age over forty, handicap or Vietnam-era veteran status. For more information on policies, see page 37 of the college catalog.
STUDENT ACCESS

Cosumnes River College, as a member of the multi-college Los Rios Community College District, endorses the open door policy of the district. As a multi-cultural institution, its academic programs and services are open to all persons without regard to race, color, marital status, religion, national origin, age, gender, sexual orientation, handicap or Vietnam-era veteran status.

Affirmative Action: CRC is committed to identifying and modifying any action that may alienate individuals and groups from each other. To do this, the college has:

- Established varied programs and services that enhance opportunities for women, minority, low-income, disabled, and disadvantaged students to succeed in all areas within the college program;
- Assured equal opportunity for ethnic minorities, disabled persons and women in the areas of employment, promotions and assignments; and
- Implemented programs to increase understanding and sensitivity among members of the majority group to the rising aspirations and occasionally unique needs of minority groups.

Open Courses: Cosumnes River College places an emphasis on providing both general education and high quality occupational/technical programs and is committed to offering day, evening, weekend and summer courses. The policy of this district is that, unless specifically exempted by statute or regulation, 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 the college(s) and who meets such prerequisites as may be established.

HISTORY AND FACILITIES

Cosumnes River College is one of three community colleges within the Los Rios Community College District.

Los Rios Community College District: The Los Rios District was founded in July 1965 when voters in 10 separate school districts covering five counties opted to consolidate. The election established a regional community college district of 2,400 square miles and brought together, under one governing board, the then existing Sacramento City and American River colleges.

The newly established seven-member board approved a Master Facility Need Study in February 1967 of which plans for Cosumnes River College were a part. The plan called for a phased construction of facilities, with the first phase to be completed in the fall of 1970, to accommodate 2,000 students. Early in 1967 the Board of Trustees, the campus architects and a citizens’ advisory board studied various sites. Eventually a 180-acre site 12 miles south of metropolitan Sacramento was selected.

Cosumnes River College: The college opened on September 14, 1970, with 1,800 day and 350 evening students. Facilities included the science building, automotive and technology complex, women’s physical education building, pool, and the library building. In September 1975, the Business/Social Science classroom building was dedicated, the first since the college opened. The computer laboratory, located there, is equipped with state-of-the-art data processing equipment that supports many areas of the college curriculum.

The campus consists of 12 permanent buildings, including fiber optics and satellite transmission capabilities for the latest in information/communication services. The Cafeteria/College Center opened in Fall 1990 with facilities for both the instructional foodservice program and student/staff needs. Phase II of the College Center opened in June 1991 for Admissions/Records, Financial Aid, Business Services, Administration and the Bookstore. A new visual and performing arts complex was opened in October of 1995, thus completing the college's original facilities master plan.

The El Dorado Center, located in Placerville, moved to its new facility in the Fall of 1994; the Folsom Lake Center, located in Folsom, opened in January of 1993 (see page 5). The Folsom Lake Center will become the nucleus of the district's fourth college, approved by the state for future development.

There are more than 16,000 students enrolled at Cosumnes River College’s main campus, El Dorado and Folsom Lake centers combined. The college offers a broad option of more than 60 occupational degree programs, and a comprehensive curriculum of transfer courses.

Cosumnes River College has emerged with very much its own identity, small enough to offer personalized attention, yet large enough to offer a comprehensive postsecondary education to the community it serves.

Facilities Usage: In accordance with the Civic Center Act, the college is designated as a place for community functions of various kinds. College facilities are made available for use by authorized community groups when such use does not interfere with the educational program.

To rent college facilities, contact College Operations at 691-7418.

OUTREACH PROGRAMS

Cosumnes River College is committed to bringing the college to the community wherever there is sufficient student interest to support college classes.

In July 1985 a Los Rios Community College District reorganization of outreach programs placed all such programs along the Highway 50 corridor under the Cosumnes River College administration. This now includes the El Dorado Center, Folsom Lake Center, and various other sites.

The outreach centers, as well as other learning sites, are also tied to the main campus through the instructional television system. This system enables classes with a low enrollment at any one site to be offered by combining the students at several sites into one class and thereby enhancing learning opportunities.

Outreach students as well as ITFS and Internet students can now continue their education without being physically present on the main campus for each class. This flexibility has dramatically increased the educational opportunities available to Cosumnes River College students.

The Folsom Lake Center: 100 Clarksville Road, Folsom, CA 95630, (916) 608-6500. The Folsom Lake Center opened for classes in January of 1993 and is currently serving over 3500 students from the Folsom, Rancho Cordova, El Dorado Hills and surrounding communities.

The Folsom Lake Center is experiencing very rapid growth in student population as well as course offerings. The center is now offering a wide range of general education, transfer, and vocational courses. In addition, the Folsom Lake Center offers the following services to students on site:
- Counseling
Cosumnes River College, together with the Los Rios Community College District and the State Chancellor's Office of the California Community College system are developing the master plan for a complete community college campus at the Folsom Lake site. Construction of the permanent facilities began in August of 1999.

The El Dorado Center: 6699 Campus Drive, Placerville, CA 95667, (530) 642-5644. The El Dorado Center is a state-recognized education center with more than 2,900 students in attendance. The El Dorado Center, originally known as the Placerville center, opened at the new site in the Fall of 1994 at its new site located behind the El Dorado County Office of Education, near the intersection of Green Valley and Missouri Flat roads. The facility has several state-of-the-art science labs, an excellent art facility, and a new Fitness Center that opened in January of 1999. The Center has won a statewide architectural award of excellence. Serving the Western Slope of El Dorado County, EDC offers a full range of transfer and career programs.

In addition, the El Dorado Center offers the following services to students on site:

- Counseling
- Financial Aid and Scholarships
- Extended Opportunity Programs and Services
- Learning Disabilities Assessment
- Assessment and Orientation
- Transfer Opportunities
- Student Activities
- Bookstore
- Computer Center
- Learning Resource Center
- Police/Security
- Tutoring Center
- Distance Learning Classes
- Cooperative Agencies Resources for Education (CARE)

To make a confidential appointment, call the SBDC at 563-3214 or E-mail: info@sbdc.net or visit us at www.sbdc.net. The SBDC is located at 1410 Ethan Way, between Hallmark and Hurley.

Contract Classes/Los Rios Community College District's Training Source: Customized training and education for employers and their employees in the Sacramento area is offered by CRC in collaboration with the Los Rios CCD Training Source. Contract courses are scheduled at any time throughout the year and vary from a single workshop to a series of classes provided over a few weeks or months. The Training Source also conducts on-site college credit and degree programs; customized instruction for an employer's assessed training requirements; as well as performance consulting. Since 1985, the Training Source has provided training to more than 58,000 Sacramento area employees, including Intel, Packard Bell, Bank of America, Aerojet General, SMUD, among others, and many state and local public agencies and school districts. (916) 563-3230.

North/Far North-Regional Environmental Business Resource and Assistance Center (N/FN-REBRAC): The North/Far North-Regional Environmental Business Resource and Assistance Center (N/FN-REBRAC) was established to provide environmental education and assistance to businesses, college faculty, individuals, and public agencies with the goal of decreasing the costs associated with: hazardous material and waste management, controlling air and wastewater emissions, maintaining a safe work environment and the consumption of water and energy. Services include: client, student and faculty training, dissemination of technical information, referrals to service providers, and research into creative Environmental Health and Safety (EH&S) procedures and financial support options for EH&S equipment purchases. For more information call: (916) 563-3241 or (800) 614-0000, email at: info@nfnrebrac.org or visit our website at: www.nfnrebrac.org.
ADMISSION REQUIREMENTS AND PROCEDURES

Matriculation is a state-mandated program designed to assist students in accomplishing their educational goals. It is an agreement between the college and the students.

Cosumnes River College agrees to provide an organized process of admissions, assessment and testing, orientation, counseling and student progress follow-up. The students agree to: declare a specific educational objective, attend class regularly, complete assigned course work and maintain satisfactory progress toward the achievement of their educational plans.

The following matriculation services are designed to ensure that community college students receive every opportunity to achieve their educational goals:

**ADMISSION ELIGIBILITY**

Admission is open to any high school graduate or non-high school graduate 18 years of age or older.

**Advanced Education for High School Students:** The college may allow 11th and 12th grade students (and other high school students under special conditions) to enroll for advanced educational enrichment with the approval of their school principal/counselor and parent/guardian. These advanced education students (taking less than 12 units) are exempt from enrollment fees but not from books/materials costs. Fees for non-residents still apply. The Advanced Education Form must accompany the college registration process. Students interested in this program should first contact the CRC Counseling Center, phone 691-7316.

**Determination of Residence**

California state law requires that each student enrolled in or applying for admission to a California Community College provide proof of his/her residence classification.

The statutes regarding residence determination are found in Sections 68000-68090 and 76140 of the Education Code, Sections 54000-54072 of the California Administrative Code and in the regulations of the Los Rios Community College District. These regulations are available in the Admissions Office of the college and are subject to the interpretation of the college.

The California residency requirement has two parts, Act and Intent. To claim residency a student must have lived in, and shown intent to reside in, California by one or more of the following acts of intent:

- Paying California income taxes
- Possessing a valid California driver's license
- Registering and voting in the state
- Owning and registering a car in California, and/or
- The absence of these ties with another state or country

Concurrent with these acts of intent, physical presence in the state for one year prior to the first day of the semester is needed to establish California residency in the District. Because the residency requirement is complicated, students with questions should contact the Admissions Office in the College Center for more information.

**Non-resident Student:** A student classified as a non-resident will be required to pay out-of-state tuition, which is set by the Board of Trustees of the Los Rios Community College District.

Information regarding tuition fees and refunds is found in the “Fee Requirements” and “Fee Refund” sections of this catalog.

**Incorrect Classification:** Non-resident students who have falsified information and enrolled without paying their fees will be excluded from classes upon notification, pending payment of the fee. Written notification may be given at any time. These students will not be readmitted during the semester or summer session from which they were excluded, nor shall they be admitted to any following semester or summer session until all previously incurred tuition obligations are paid.

If a student is erroneously determined to be a non-resident and a tuition fee is paid, the fee is refundable provided acceptable proof of state residence is presented within the period for which the fee was paid.

**ADMISSIONS APPLICATION**

Applicants must file a written application for admission on a form obtained from the college Admissions Office.

**Admission with Advanced Standing**

Cosumnes River College welcomes transfer students from other accredited schools and colleges. Those students who have earned grades averaging less than 2.0 (“C”) will be admitted on probation.

Students who have been dismissed or disqualified from another accredited collegiate institution may be denied admission for one semester after dismissal or disqualification, if applying for admission to Cosumnes River College, immediately after dismissal. (See Academic Dismissal).

**Admission for Veterans and/or Dependents**

Students should contact the Veterans Clerk, located in the Admissions Office, at least two months prior to the term of attendance to initiate and complete required paperwork. In addition, all recipients must confirm their classes with the Veterans Affairs Office after completion of registration. All material submitted to the Veterans Administration takes approximately two months for processing through the Veterans Administration Regional Office in Muskogee, Oklahoma.

After enrolling at CRC, a veteran may apply for evaluation of military service experience for college credit. A copy of the veteran's DD214 separation paper MUST be submitted at the Veterans Affairs Office in the Admissions Office.

For more information, veterans or dependents should contact the Veteran's Affairs Clerk in the Admissions Office or call (916) 691-7412.

**Admission for International Students**

International students who wish to enter Cosumnes River College must contact the Admissions Office to receive admissions information. Such students should initiate an application for admission at least six months prior to the opening date of the semester in which they wish to enroll.

(continued next page)
If accepted, international students will complete the regular admission procedure. The college will issue a Certificate of Eligibility, Form I-20, to indicate final acceptance.

To be certified as full-time students with the Immigration and Naturalization Service, international students must enroll in a minimum of 12 units and must maintain a "C" (2.0) average at all times.

International students must pay the International Student Tuition Fee (For Fee Section)

The college does not provide clinical health services, and requires a mandatory health insurance policy or equivalent medical protection for international students. In addition, the college requires the results of a current tuberculosis skin test or chest X-ray. Health insurance and skin testing services are available at the Health Services Office, L-200.

Beginning Spring semester 2001, International students (F, J, and H visas) will be required to show evidence of approved health insurance coverage throughout the duration of their studies.

ASSessment and Testing

The assessment process is a combination of counseling, evaluating prior school transcripts, testing and identification of career and educational goals—all designed to facilitate student success. All students are encouraged to take the assessment test before enrolling in classes. New and continuing students should refer to the current assessment schedule for test dates or contact the Assessment Office in Library 200 (691-7372).

Students who have tested at another community college or who have earned an Associate (or higher) degree should consult with a counselor for assistance with course selection. Students with special testing needs must sign up in advance for testing in the DSP&S Center (691-7275).

Orientation and Advising

All first-time and other interested students are strongly encouraged to participate in an orientation and advising session. College programs, services and facilities will be explained and interested students will be directed to student development and leadership opportunities. Counseling staff will assist students with course selection. New students who participate in orientation and assessment will be allowed to register with continuing students.

Registration

Registration dates are listed in the calendar in the front of the catalog. Registration materials are available on campus and at CRC outreach centers. Complete registration instructions are in the schedule of classes each semester. Touch Tone telephone enrollment (T.E.S) is available during registration periods. Consult the class schedule for details.

Transcripts

It is the applicant’s responsibility to have official high school records and official transcripts of all work attempted, completed or in progress at ALL other accredited colleges forwarded directly to the Cosumnes River College Admissions Office. The Admissions Office must receive official transcripts or any “Work in Progress” immediately after completion of such work. These records also apply to any summer session or correspondence work.

FOLLOW-UP COUNSELING

All new students are encouraged to meet with their counselors at least once during their first semester. This session helps students with goal setting, selection of a major, career exploration, and the completion of a Student Learning Plan. Students are encouraged to make an appointment early in the semester to ensure preparation for the following semester’s registration.

FEE REQUIREMENTS

At the time of publication of this catalog, the following fees are in effect:

General Enrollment Fees: All students must pay a general enrollment fee of $11 PER UNIT. The California Community College Board of Governors provides a waiver of fees for qualified students (see page 15 for financial assistance information).

Non-Resident Tuition: Students classified as non-residents (see “Determination of Residence,” page 6) are required to pay a $134 PER UNIT tuition fee, plus the PER UNIT general enrollment fee.

International Student Capital Outlay Fee: International students who are both a citizen and resident of a foreign country will be assessed a $22 PER UNIT fee for capital outlay purposes, in addition to the PER UNIT general enrollment fee, and PER UNIT non-resident tuition.

Instructional Material Fees: Instructional material fees for designated courses may be assessed in accordance with Title 5, Section 59400 and District Policy 2253.

Note: Fees are subject to change as they are set by the State Legislature. Students who have registered for classes prior to any increase may be billed for the additional amount. Fees are due and payable at time of registration.

Student Representation Fee: A mandatory representation fee of $1 per student per semester (excluding summer session) has been established by an election at CRC and at El Dorado Center held on May 21-22, 1991. Under the provision of California Education Code, section and California Administrative Code sections 54801-54805, the students established the representation fee by a two-thirds majority of students voting in the election.

Use of Student Representation Fee: The money collected from the student fee shall be expended to provide support for students or representatives who may be stating their positions and viewpoints before city, county and district government, and before offices and agencies of the state and federal government.

Amount of Fee: One dollar ($1.00) per semester.

Right to Refuse to Pay: A student has the right to refuse to pay the fee for religious, political, moral, or financial reasons. This refusal must be in writing.

Forms: The fee form must be completed and signed.

(continued next page)
Fee Payment: The $1 fee or a signed statement of refusal to pay must be paid (submitted) at the time of registration. Failure to pay the fee or submit a signed refusal form or statement may cause a delay in processing the student’s registration. This fee is not covered by Financial Aid and is NOT refundable.

Associated Student Government Photo I.D. Cards (optional): The Student Development/Associated Student Government Office sells photo I.D.’s at a cost of $9 per year or $5 per semester. Though the cards are not required, funds are expended by the ASG on behalf of the student body for various projects, including cultural and noon events. The cards provide various discounts for on/off campus events and merchant discounts along with providing a valuable photo identification. Contact the Student Development Office for more information at 691-7315. This fee is non-refundable.

Parking Fees*: All students wishing to park a motorized vehicle on campus will be subject to a parking fee. A parking permit (decal) may be purchased, and the cost is:

**SUMMER SESSION**
- Auto $15
- Motorcycle $8
- Daily Parking Permit $1

**FALL/SPRING SEMESTER**
- Auto $30
- Auto (Student w/BOG Waiver) $20
- Motorcycle $15
- Daily Parking Permit $1

In lieu of the permit, students wishing to park automobiles on campus may purchase a daily parking ticket for $1 from machines located in various parking lots. A daily parking ticket will be available only for automobiles - not motorcycles.

Students awarded a CCC Board of Governors fee waiver may purchase a parking decal (automobile only) for $20, a $10 discount. Vehicles not having a valid parking decal, or daily parking ticket properly displayed, will be issued a parking citation.

Parking decals may be purchased at the Business Services (Cashier) Office. If a parking decal is lost or stolen, a new decal must be purchased at full price. If a vehicle is sold or damaged (i.e., windshield replaced) during the effective term of the decal, a replacement can be issued for $2.00 if the proof of sale or repair of vehicle and the old decal (decal number intact) are submitted to the Business Services (Cashier) Office.

* All fee amounts subject to change

FEE REFUNDS

It is the responsibility of the student to apply for a fee/tuition refund. To be eligible for processing, the student must:

- Submit a refund request form to the Business Services (Cashier) Office no later than the last day of the semester or session currently being completed.

For all semester length courses, enrollment, tuition, and international capital outlay fees are 100 percent refundable through the tenth day of instruction. Short-term courses are 100 percent refundable through the fifth day of instruction. Prorated refunds are not available under current legislative law. Application and installment payment plan fees are not refundable.

Parking Fees are 100 percent refundable only through the tenth day of instruction for semester and the fifth day of instruction for summer session. To be eligible for a refund, the parking decal must be attached to the refund request form and submitted to the Admissions-Cashier Office within the first ten days of instruction for 18 week courses and through the fifth day of instruction for short-term (greater than one day but less than 18 weeks) courses.

FEDERAL EDUCATION TAX CREDITS (Hope Credit and Lifetime Learning Credit)

Students or parents of dependent students may be able to obtain federal tax credits for enrollment fees if enrolled in at least 6 units during any semester or summer session, and meet the other conditions prescribed by federal law. The District will automatically mail an IRS form 1098 to each student so that the student can claim any credits on their federal tax return.

If the 1098 form should be sent to the parent instead, please contact the college Admissions office for the appropriate forms in which to make this change. If choosing this option, provide the parent’s full name, social security number, and mailing address. This change must be made prior to December 31. The District will then send 1098 forms to the parent for all future years, unless directed otherwise by the student no later than December 31 of any given year. More information on the Hope credit or Lifetime Learning Credit is available by obtaining a copy of IRS Publication 970 or the following IRS web sites:

For the IRS Publication 970:

For IRS Notice 97-60 on the Hope Scholarship Credit:

For IRS Notice 97-60 on the Lifetime Learning Credit:
The college has a variety of support services available to assist students with career decision-making, problem resolution, and goal achievement.

ASSESSMENT SERVICES

The Assessment Office, located in the Library Gallery, provides a variety of testing services to assist students in determining the appropriate course placement. Assessments are scheduled on a monthly basis for English, reading, mathematics and English as a Second Language (ESL). Exams to meet reading and math graduation competency requirements and the Ability to Benefit (ATB) are also available. All tests are on a first-come, first-serve basis and there is no charge. A monthly testing schedule is available in the Admissions, Assessment or Counseling offices. The Assessment Office is open from 7:30am-7pm, Monday-Thursday, and 7:30am-5pm, Friday. (916) 691-7325. Students with special testing needs should call the Disabled Students Programs & Service Center, (916) 691-7393.

CalWORKs

The CalWORKs office is here to support students who are currently receiving cash aid from the county. We have many services to offer qualified students:
- Counseling
- On-the Job Training
- Job Placement Referrals
- Transportation
- Case Management Referrals
- Progress reports
- Book Service
- Study Groups/Tutoring
- Child Care services on and off campus
- Support Groups
- Workshops

The CalWORKs Office is located in L-111C of the Library building. Students may stop by or call 691-7465 to make appointments.

CAMPUS POLICE

691-7393 (24 hours) 691-7594 (Fax number)

The Campus Police Office is located at the north east corner of campus adjacent to the Technology Building. The office operates on a 24-hour basis 7 days a week. The department is a P.O.S.T. certified agency and provides both law enforcement and security services to the students. In addition to assisting and handling cases of emergencies, this office handles all parking enforcement and appeal processing, lost and found, vehicle jumpstarts and lockouts, escorts, and offers a shuttle service during the evening hours. The shuttle service operates Monday-Thursday from 5:30 P.M. to 10:30 P.M.

CAREER SERVICES

See page 13 for combined Transition Services.
CARE (COOPERATIVE AGENCIES RESOURCES FOR EDUCATION)

The CARE Program is a state-funded program providing academic, career, and personal counseling; campus and community referrals; child care and/or transportation financial assistance (financial aid process must be completed); peer advising; priority registration; transfer assistance; tutorial services; and support workshops.

To be eligible, a student must:
- Be eligible for the Extended Opportunity Programs and Services (EOP&S) program
- Be a recipient of TANF for one year prior to acceptance to the CARE Program
- Be a single head of household
- Be a parent of at least one child age 5 or under (at the time of acceptance into the program)
- Be a California resident
- Be at least 18 years of age
- Be a full-time student (enrolled in 12 or more units) with a vocational or academic objective.

For further information, contact the CARE/EOP&S Office, L-103/107 at 691-7463 or 691-7365.

COUNSELING

Counselors are available throughout the year on an appointment or walk-in basis. Counselors are housed in the Counseling Center, in the Library Building, L-200 (691-7316) on the main campus, also in the Student Services area of the El Dorado Center, and in the Administration Building of the Folsom Lake Center. The professional counseling staff provides:
- Academic counseling, in which the student is assisted in assessing, planning and implementing his or her immediate and long-range and/or transfer goals.
- Career counseling, in which the student is assisted in assessing his or her aptitudes, abilities, and interests, and is advised concerning current and future employment trends.
- Personal counseling, in which the student is transitionally assisted with personal, family or other social concerns, when that assistance is related to the student's education.
- Crisis intervention, either directly or through cooperative arrangements with other resources on campus or in the community.
- Multicultural counseling, in which students are counseled with a respect for their origins and cultural values.
- Human and Career Development courses College Success, Study Skills, Career Exploration (See page 193).
- Consultation to the college governance process and liaison to the college community to make the environment as beneficial to the intellectual, emotional, and physical development of students as possible.

DISABLED STUDENT PROGRAMS & SERVICES (DSP&S)

Disabled Student Programs & Services (DSP&S) provides equal educational opportunity for students with physical, psychological, or learning disabilities. Students with disabilities are encouraged to lead active and independent lives by participating in all college programs. Counseling, support services, and academic accommodations are provided to students who are eligible for the program.

Physical and Psychological Disabilities: Students with the following disabilities are eligible to receive support services and academic accommodations: hearing impaired and deaf, blind and low-vision, mobility impaired, psychologically disabled (a diagnosis from a psychiatrist), and other health problems that would require special assistance.

Learning Disabilities: Students of average or above average learning aptitude may have a specific learning disability which significantly impacts their educational progress.

The Cosumnes River College Learning Disabilities Program can provide support services and academic accommodations to students who have documentation of a specific learning disability from another school or professional. In addition, Diagnostic Assessment may be available for appropriately referred students who come to the DSP&S program for an orientation appointment.

Academic Accommodations: Accommodations are individually determined for students with disabilities, according to the functional limitations of the disability. Accommodations may include:
- The use of equipment and materials such as a tape recorder, calculator, computer, taped text or spelling checker in the classroom and/or in meeting class assignments.
- The use of personnel such as readers, interpreters, note takers (while attending classes), scribes, and mobility assistants.
- Testing accommodations, which may include extension of time, quiet room, use of calculator, spelling checker, computer, alternative method of testing, or modification of the test response format.
- Individualized tutoring when disability prevents successful use of existing college tutorial services.

If an academic accommodation is requested that is not listed above, the request will be forwarded by the DSP&S Coordinator to the Dean of Counseling/Student Services for consideration. The student has a right to appeal any decision regarding academic accommodations. See the DSP&S Coordinator for more information.

The Disabled Student Program and Services Center is located in Portable 57/58. For more information, call 691-7275 or 691-7273 (TDD/Voice). Services are also available for students enrolled at Folsom Lake and El Dorado centers. Call for more information.
EXTENDED OPPORTUNITY PROGRAMS AND SERVICES (EOP&S)

EOP&S provides the following comprehensive support services to students who are educationally and economically disadvantaged. Services are open to students enrolled at all three campus sites:

- Priority Registration
- Career Assessment
- Recruitment
- Individualized Peer Advising sessions
- Book Service Program
- Study Groups/Tutoring Assistance
- College Orientation
- Application Fee Waivers (CSU, UC)
- Progress Reports
- Case Management Referrals
- Seminars/Workshops
- Transfer Information
- Field Trips to 4-Year Colleges and Universities
- Counseling
- Cooperative Agencies Resources for Education (CARE)

To be eligible, a student must follow the guidelines for the EOP&S program:

- Be a California resident (have lived in the state one year and one day before school starts)
- Be enrolled in 12 units (some students with exceptional conditions may be accepted at a reduced load)
- Qualify to receive the Board of Governors Waiver (BOGW - method A or B)
- Not have completed more than 70 units or six consecutive semesters in the EOP&S program
- Submit an application to the EOP&S program
- Be educationally disadvantaged as determined by the EOP&S program.

The EOP&S Office is located in 107 of the Library building. Appointments may be scheduled by stopping by the EOP&S office or by calling 691-7365.

FINANCIAL AID SERVICES

The Financial Aid Office publishes the "Financial Aid Handbook" which describes available programs, how to process an application, and lists important dates to remember. The handbook is available upon request.

The Financial Aid Office is located in the College Center. The financial aid staff is available by appointment or drop-in basis to assist students and parents at all three campus sites. (Contact each site for specific office hours).

For additional information, please refer to the "Financial Assistance" section of this catalog. (See page 15).

HEALTH SERVICES

The college maintains a Health Services office staffed by a nurse to assist students with health-related problems. Students are given first aid for any campus injury, as well as illness prevention and health maintenance advice, including referrals to the appropriate community health organizations. The office houses a variety of publications and brochures on various health-related subjects. The Health Services Office is not clinically equipped; therefore, no medical care or treatment can be given.

Students with major physical disabilities or health problems should consult with Health Services staff. Other services include hearing, vision and blood pressure screening, and tuberculin skin testing.

Health Services is located in the Library Building, L-201 (phone 691-7254). No appointment is necessary.

LIBRARY AND MEDIA SERVICES

The Library and Media Center at Cosumnes River College, including ITFS (Instructional Television Fixed Service), is housed in a three-story building completed in 1970. Its contemporary furniture, carpeted floors and convenient open shelves provide ideal study and research facilities.

Library: The Library houses a growing collection of more than 60,000 volumes. In addition, there are periodicals, CD ROMS, video-cassettes, sound recordings, and other instructional media. The main access to the collection and all available information resources in the library is the LOIS (Los Rios Online Information System) computer public access catalog. Indices to periodicals by subject are available in online, CD ROM, and paper formats. Access to newspaper articles is available online, in CD ROM, with full text articles available from several individual newspapers and selected access to others through NewsBank. Internet connection is included in the LOIS system through WebPac. Access to LOIS WebPac for connecting to the library collection and resources outside of the library is on the CRC homepage: wwwcrc.lorios.esc.edu. There is a computer workstation available for students with physical and learning disabilities.

All college course offerings are supported through orientations, reference services, bibliographic listings, and through selection and acquisition of materials supporting student research and faculty requests.

Media Center: The Media Center, located on the first floor of the library building, is responsible for the college’s distance education program. Taped and live-interactive classes are broadcast to outreach centers and over area cable companies. Coordination of the technical and instructional logistics of distance education is handled by the media staff. In addition, the media department is responsible for distribution and maintenance of audio/visual equipment and set up of special presentations or productions. The media department also directs satellite up- and down-linking, tape duplication, and off-air dubbing, including copyright issues.

MAINTENANCE ALLOWANCE

The Los Rios Community College District will pay a maintenance allowance in an amount determined by the State Chancellor’s Office per day of scheduled attendance for a period in which the student is enrolled full-time. Payment will be issued to the parent or guardian of minor non-district students, and directly to adult non-district students and to married minors who reside in California outside the Los Rios Community College area and/or more than sixty (60) miles from the nearest public community college campus. Application for maintenance allowance is available in the Admissions Office, and must be submitted during the semester of attendance. Additional information may be obtained from the Admissions Office.
MESA/ CCCP

The Math Engineering Science Achievement/California Community College Program is active at CRC. The program focuses on preparing economically disadvantaged students for professions related to engineering, computer science, science, and mathematics. The program provides support services to help students both in college and career choices. The services include, but are not restricted to:

- Academic Advising
- Group and Individual Tutoring
- Workshops
- Scholarship and Summer Internship Opportunities
- Field Trips to Transfer Universities and Local Industries

Call (916) 691-7338 for more information.

PUBLICATIONS

The COLLEGE CATALOG and CLASS SCHEDULES are important resources for student success. Both publications include valuable and current information on available services, course/program selection and graduation and transfer requirements. Students should keep one or both publications as references throughout the year.

The college newspaper, THE CONNECTION, is published under the general supervision of the Journalism Department on the main campus. CAMPUS REFLECTIONS is published by the Journalism Department of the El Dorado Center.

THE CAMPUS TYMES, circulated bi-weekly by the Student Development Office, contains announcements regarding up-coming campus events and student activities information.

A STUDENT GUIDE is published by the college and contains both general information and specific campus rules and regulations.

A STAFF HANDBOOK is published by the college to provide pertinent information, both general and specific, to college faculty and staff.

READING/WRITING CENTER

The Reading/Writing Center (RWC), located in L-313, is a place where students can get help on their reading and writing assignments. Staffed by English professors, an instructional assistant, and student tutors, the RWC is also equipped with 32 computers that students can use to compose their essays or to access the Internet for class assignment research. Sign up for English 252 to use the RWC.

STUDENT DEVELOPMENT

The Student Development Office, located in Library 106, offers a variety of ways for students to become involved:

- Clubs and Organizations: These activities offer diversified social and educational opportunities. Each club must have a faculty advisor and be approved by the Student Development Office.

- Associated Student Government (ASG): The basis for student government at CRC is the constitution of the ASG. This organization, recognized as the voice of the students on campus, operates under the direction of officers who are elected at-large.

The ASG is the vehicle through which students may actively participate. Representatives who serve on college committees are appointed by the elected ASG president and many also serve on districtwide committees.

Special allocations for student body representation fees are made by the CRC ASG.

Student Government activities are also in place at the El Dorado and Folsom Lake centers and act as arms of the CRC ASG.

Associated Student Government Photo I.D. Cards:
Purchased from the Business Office or Student Development Office, these cards help fund campus cultural events and entitle students to:

- Eligibility for Student Government Office
- Check Cashing Privileges in the Business Office or Bookstore
- Free or Discounted Admission to Athletic and Other Campus Events
- Reduced Price for Events Sponsored by the ASG

Housing, Bus Schedules, Rideshare: Although Cosumnes River College does not provide dormitories or other types of accommodations for students who are enrolled at the institution, it does maintain a current housing list and board in the Student Development Office and a bulletin board in the College Center for bus schedules and rideshare forms.

Other services include: assistance to clubs and the ASG; noon-time events; posting/posters; events and fund-raising assistance; graduation and honors/awards ceremonies and cultural events.

STUDENT EMPLOYMENT

Students may work on or off campus at any of the three sites through a variety of programs. Students are limited to a maximum of 20 hours per week (all program sources). Payments to students are dispersed through Administrative Services at each site.

Students may be employed as part of their financial aid package and should consult the Financial Aid Office, (916) 691-7325. (See page 15 for qualifying information.) Students desiring part-time employment off-campus are encouraged to consult the Job Services staff, located in the Transition Services Center (L221) (916-7343). For more information, see the Transfer/ Career Center section of this catalog.

TRANSCRIPTS TO OTHER COLLEGES

The Admissions Office will send the first two copies of a student's Cosumnes River College record to any college or university without charge. Additional copies may be obtained for $2 each. Same day official transcripts may be obtained for $10 each. There is no charge for same day unofficial transcripts. The required number of transcripts varies according to institution, and students should refer to the catalog or bulletin of the college or university which they expect to enter.

(continued on next page)
TRANSITION SERVICES

There are four major areas of information in Transition Services.

• Careers
• Transfer
• Employment
• Co-op Work Experience Education

Our students are in continuous “transition” from one area of life to another. Whatever transition our students make, Transition Services is a great one-stop resource to gather information and make future plans.

Career Services offers a variety of activities and resources to help meet your individual career needs. Activities include:

• Resume assistance - on the computer, in a workshop, and/or in-person
• Job search - traditional, “hidden jobs”, and computerized job banks
• Interviewing - skills to be more competitive
• Transition Faire - employers are on campus to provide career information, employment, internships, and transfer information to students
• Computers/Internet - self assessment, and researching career-related topics
• Reference materials - books, videos, and handouts
• Workshops - We offer workshops and seminars to develop the skills you will need to communicate with employers. Check in Transition Services for current scheduled offerings.

For more information, contact 691-7456.

Employment Services assists students seeking on & off-campus employment. Transition Services schedules employers on campus for information, recruitment, interviews, or to gather applications and resumes.

Jobtrak, a computerized listing of available jobs is posted daily on the internet for viewing by students. Other listings are available for viewing in the Center. Listings state the job description, qualification requirements, pay, location, and other related details of that particular job. For more information, call 691-7343.

Cooperative Work Experience Education, (Co-op) Services is an academic program in which students apply what they have learned in the classroom to their job or internship site and work toward earning college credits. Students will develop new skills on-the-job or in a skilled professional level assignment on campus or in the community. One career transition. Internship and job assistance is available. Internships may be paid or non-paid, and will provide preparation for a career by providing professional skill development, employment contacts, confidence building and more. For more information, call 691-7372.

Transfer Services: Cosumnes River College is committed to transferring qualified students to the four-year university of their choice. Located in the Library Building (2nd floor), the Center offers a large supply of applications, catalogs and other resource materials. Information on transfer opportunities is available at both the off-campus centers as well. Students may talk with Cosumnes River College counselors as well as representatives from various four-year colleges and universities about course work, housing, financial aid, and more.

The Center also helps students to concurrently enroll at CSUS and UCD (with fees waived) and provides for admission through a Transfer Admissions Agreement (TAA) to CSU, Sacramento; CSU Fresno; CSU San Francisco; and CSU Chico; UCDavis; and University of the Pacific. On-line application services are available for some colleges. For more information, call 691-7456.

The Center also houses ASSIST, a computerized student transfer information system that can be accessed over the World Wide Web. It displays reports for transferring course credits from one California college or university to another. ASSIST is the official repository of articulation for California’s colleges and universities and, therefore, provides the most accurate and up-to-date information available about student transfer in California. The Internet address for ASSIST is: www.assist.org.

TUTORING SERVICES

Enrolled CRC students can receive tutoring assistance, free of charge, from several campus tutorial centers. These centers are listed below. To find out more information about a specific center, call the printed telephone number listed.

* Business English Help Line 691-7444
  Provides telephone assistance for short Business English questions.

* Computer Information Science Lab 691-7297
  Provides individual and group tutoring for most of the CIS Classes.

* Disabled Student Programs & Services (DSP&S) 691-7275
  Provides tutoring assistance to students with disabilities who cannot be adequately accommodated at other tutorial centers.

* Language Lab 691-7407
  Provides individualized and small group tutoring for students enrolled in ESL classes, and provides tutoring for students enrolled in Spanish and Vietnamese classes.

* Library Gallery 691-7425
  Provides tutoring assistance to students with English questions.

* Laboratory for Accounting & Business 691-7449
  Provides tutoring in accounting, economics, and general business subjects.

* Math Lab 691-7459
  Provides math tutoring on a drop-in basis, computer assisted instruction, subject specific workshops and group tutoring.

* MESA 691-7338
  Provides tutoring in Science, Mathematics, and Engineering P 51
  On a drop-in or appointment basis. Preference is given to Students enrolled in the MESA program. (see page12)
VETERANS ASSISTANCE

The CRC Veteran's Affairs Office, located in the Admissions Office, is established to help process Veterans Administration (VA) Educational Benefit paperwork and to coordinate with other campus services. This "one-stop shop" provides the student veteran and eligible children, spouse or surviving spouse of a veteran using the VA Educational Benefits with a variety of services.

To receive an educational allowance, the Veterans Administration requires a student veteran or dependent to:

- Request "official" transcripts from other colleges attended
- Identify an educational objective, see a counselor and fill out a Program Planner
- Take only courses that are required for the educational objective
- Complete satisfactorily the courses for which benefits are received, and attend classes regularly.

For more information, veterans or dependents should contact the Veterans Affairs Clerk in the Admissions Office or call (916) 691-7412. (see page 6 for more information)
Cosumnes River College’s Financial Aid Office, located in the
College Center, provides a wide range of financial assistance to students in
the form of part-time employment, grants, and loans. All awards are contingent
upon availability of funds.

The basic premise for all need-based financial aid programs is that the
primary responsibility for financing a student’s post-secondary education
rests with the student and his/her family. Student financial aid is intended to assist with those educational costs that remain after the
student’s resources and an expected contribution from the family have
been taken into account. To be considered for financial aid, a student
must complete a Free Application for Federal Student Aid (FAFSA) each
academic year. FAFSAs are available at the Financial Aid Office, located in
the College Center. FAFSA on the Web is available on the Internet for those
students who wish to apply for financial aid electronically. The website
address is: www.fafsa.ed.gov. The school code for Cosumnes River
College is: 007536.

Cosumnes River College participates in the following programs:

EMPOYMENT

FEDERAL WORK-STUDY PROGRAM (FWS)
The Federal Work Study program allows students to earn money for
their educational expenses while in school. Students are encouraged to
find jobs relating to their program of study. Work study wages are based
on federal minimum wage guidelines. Students may qualify by virtue of
their need, satisfactory academic standing, availability and feasible work
skills.

GRANTS

BOGW
(Board of Governors Enrollment Fee Waiver)
- BOGW is for California residents only.
- BOGW does not require repayment.
- BOGW is a simple, quick process that is not connected to other
Federal aid programs.
- BOGW applicants will be required to complete a simple application
form available in the Financial Aid Office. Applicants may be asked
to provide proof of eligibility. There are three methods by which you
may qualify:
  - Method A: TANF/CalWorks, SSI, General Assistance or General
Relief recipients must bring a photo identification and an Aid
Verification Summary or provide a copy of their last voucher or
check when completing the application.
  - Method B: If you meet household (low) income standards.
  - Method C: If you have been determined to have any financial need
based on Federal calculation.
- BOGW pays enrollment fees for one fiscal year: summer session and
fall/spring semester. Only one application a year is necessary, and
you must reapply each fiscal year.

CAL GRANTS
The Free Application for Federal Student Aid (FAFSA) and a GPA
Verification form must be completed by March 2 prior to the award year.
The completed GPA Verification must be submitted to the California
Student Aid Commission.

1. CAL GRANT A
Cal Grant A helps low- and middle-income students with tuition costs
at 4-year colleges and universities. Grant recipients are selected on the
basis of financial need and grade point average.

The California Student Aid Commission will hold tuition fee awards
for those who qualify, until the student transfers to a four-year college.
Students must maintain eligibility each year.

2. CAL GRANT B
Cal Grant B is administered and processed by the California Student
Aid Commission and aids high-potential students from low income and
disadvantaged backgrounds. Applicants must be a new freshman in
college, completed no more than 16 units or completed a full-time
semester of college, or 4.5 months at a vocational/technical college by
June 30 of the prior school year.

3. CAL GRANT C
Cal Grant C is administered and processed by the California Student
Aid Commission and provides assistance for low- and middle-income
students who are formally enrolled in and pursuing a vocational training
program at Cosumnes River College.

FEDERAL PELL GRANT
The Federal PELL Grant program is an aid program designed to
provide financial assistance to students who have not yet received a
bachelor’s degree from any institution. The Federal PELL Grant is
intended to be the “foundation” of a student’s financial aid package with
other sources of aid to supplement it.

In order to determine a student’s eligibility, a Free Application for
Federal Student Aid (FAFSA) must be completed and mailed to a
federal processor.

A Student Aid Report (SAR) will be mailed directly to the student
and duplicate information transmitted electronically to the designated
school. The student may be asked to complete verification documentation
as required by federal guidelines.

Eligibility will vary according to enrollment status and federally
determined Expected Family Contribution (EFC).

FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS (FSEOG)
The Federal Supplemental Educational Opportunity Grants (FSEOG)
program is limited to undergraduate students with exceptional financial
need who, for lack of financial means, would be unable to enter or remain
in college. Funding for this program is limited; therefore, students are
encouraged to apply early.

LOANS

FEDERAL STAFFORD LOAN PROGRAM (Subsidized)
To apply for a federally insured loan, institutional policy requires that a student must:
- Apply for other forms of federal financial aid
- Attend a loan management/default prevention workshop
- Satisfactorily complete a student loan pre-test

Applications for the Federal Stafford Loan Program are available in
the Financial Aid Office. The amount is based on current Federal
guidelines. Interest charged on this loan is variable, not to exceed 8.25
percent.
FEDERAL STAFFORD LOAN PROGRAM (Unsubsidized)

The unsubsidized Stafford Loan is offered for middle and higher income borrowers and is available at Cosumnes River College. With the exception of demonstrating financial need, the unsubsidized Federal Stafford Loan has the same eligibility criteria as the regular Federal Stafford Loan. This means that family income will not affect loan eligibility or disqualify a student from receiving an Unsubsidized loan. Loan limits and interest rates are also based on current Federal guidelines.

Accepting any federal student loan is accepting a responsibility. Defaulting on any federal student loans will result in disqualification of all financial aid, adverse credit and severe legal action. By accepting a Federal Stafford Student Loan, the student accepts the responsibility to repay it.

SHORT-TERM STUDENT LOAN (STSL)
(30 Day Maximum Repayment Loan)

Emergency short-term loans are available through the Financial Aid Office and are contingent upon availability of funds. Generally, these funds are available to students who have unexpected financial difficulties. Short Term book loans are given to students who need assistance in purchasing books during the first four weeks of a semester. Eligible students may obtain a maximum of three loans per school year, with a maximum of one loan given in any one semester. Loan requests will not be considered from students with outstanding loans. Students must also be enrolled in at least 6 units and must have visible means of repayment within thirty (30) days. The funds are established and supported by contributions from CRC staff, community groups and individuals.

REQUIREMENTS FOR FEDERAL/STATE FINANCIAL AID

Ability to Benefit: Applies to students who are admitted to college but who do not have a high school diploma or the equivalent. To receive Federal student aid, a student admitted on the basis of ability to benefit must complete the course of study.

Eligibility for financial assistance is determined by:

- A demonstrated financial need. Financial need exists when the cost of education exceeds all of the resources available to a student. This need must be determined each academic year for which a student applies.
- Being a U.S. citizen, a permanent resident, or status as a resident alien with the appropriate visa.
- Making satisfactory academic progress. Academic progress will be monitored periodically to continue eligibility status. The Financial Aid Office must ascertain satisfactory progress and may deny aid to any student who fails to meet the minimum stated academic progress guidelines.

Satisfactory Progress Policy: Satisfactory academic progress is defined by the Federal Department of Education as 150 percent of normal length of time for a student to achieve an educational objective. Congress and the Federal Department of Education want funds awarded only to students who are making satisfactory progress toward their educational objective. Therefore, the Financial Aid Office is required to monitor this progress and deny aid to any student who fails to meet satisfactory academic progress policies. Please check with the Financial Aid Office for specific details.

Basis for Denial of Financial Aid: Financial Aid may be denied for the following reasons:

- Default on Stafford Loans.
- Owing a refund or repayment on PELL or FSEOG.
- Failure to meet the satisfactory progress standard adopted by Cosumnes River College for financial aid recipients. (Specific details are available in the Financial Aid Office.)
- Completion of an AA or AS Degree or 72 or more units (whichever comes first) unless a special petition has been approved by the Financial Aid Office.
- Falsification of information that affects the determination of eligibility or aid.
- Failure to provide necessary verification/documentation of income and resources.

A student may be placed on financial aid probation for one semester. If the student fails to make satisfactory academic progress during the probationary semester, financial aid will be denied. The student may file a Financial Aid Petition to reinstate financial aid, if there are extenuating circumstances that caused the dismissal.

Selective Service Notice to Men: Federal and state laws require that men must be registered with the U.S. Selective Service System to be eligible for school Financial Aid (50 U.S.C. App. 451, et seq.)

SCHOLARSHIPS AND AWARDS

The Financial Aid Office maintains a list of local, state and national scholarships available to students. As scholarship information becomes available, it is listed in the college bulletin and/or sent to the appropriate instructional area for posting. Watch for special bulletins!

There are also scholarships available to CRC students exclusively. These scholarships are generally awarded to students only after they have completed at least 12 units and are currently enrolled at Cosumnes River College. Scholarships from many donors are available for the student who is returning for a second year, as well as for the student who plans to transfer to a four-year institution. Most scholarships are announced and listed in a booklet published in early spring; however, others may be announced periodically throughout the year. Workshops are conducted during the application process (Spring semester) to assist scholarship candidates in completing their required paperwork.

Students are strongly urged to contact the Financial Aid Office for details and applications on all scholarships.

(continued on next page)
OLIVER J. DURAND AWARD - $250

The Oliver J. Durand Award, named in honor of the first president of Cosumnes River College, is the highest distinguished service award given at CRC and is presented to one outstanding student each year.

Any main campus student is eligible who has completed, or is currently completing, a minimum of two semesters (with a minimum of 24 units) at Cosumnes River College, has demonstrated outstanding voluntary service to the college and has maintained an overall GPA of 2.5 or above and made a significant contribution worthy of the Oliver J. Durand Award.

The recipient of the Oliver J. Durand Award will be presented with an honorarium of $250, given by the Associated Student Government. If the recipient is graduating, recognition will also be given at the graduation ceremony. In addition, the recipient’s name will be engraved, together with the names of previous winners, on a permanent plaque and displayed by the college.

PATRONS’ CLUB AREA SCHOLARSHIPS - $300

These awards, donated by the CRC Patrons Club, are presented each spring at the Honors and Awards Night program to the outstanding students in the following subject areas: Business and Family Science; Communications, Visual and Performing Arts; Science, Mathematics, and Engineering; Physical Education and Athletics; Careers and Technology; and Humanities and Social Science. Recipients must have a grade point average of 3.0 or better. Recipients must also be enrolled as full-time students, have completed a minimum of two semesters and be returning to CRC.

OUTSTANDING CONTRIBUTION AND SERVICE AWARD

The Outstanding Contribution and Service Award is a non-monetary recognition of students for their outstanding voluntary contribution and service to Cosumnes River College. It is a tribute to those dedicated students whose special efforts have been of value to the college.

Any student who has made an outstanding voluntary contribution or given service to the college is eligible. Former nominees and recipients may be nominated again.

No more than five (5) awards will be given each year. The Outstanding Contribution and Service Award winners will receive a framed certificate presented at the Spring Honors and Awards program. In addition, names of the winners will be permanently engraved, together with the names of previous winners, on a plaque and displayed by the college.

CERTIFICATES OF EXCELLENCE AWARDS

These non-monetary awards, based on recommendations of instructors and presented at the annual Honors and Awards program, are given to no more than four students from each of the instructional areas. The certificates are signed by the president of the college and the appropriate dean or instructor of the area.

To recognize deserving students, an Honors & Awards Program is held in May of each year to honor scholarship recipients, high academic achievers, and those who have rendered valuable service to the college and fellow students.
GRADUATION REQUIREMENTS

Requirements for the Associate Degree are outlined as follows:

MINIMUM GRADUATION REQUIREMENTS

A. Satisfactory completion of 60 units of collegiate work with a “C” (2.0) grade point average in a curriculum that the district accepts toward the degree. At least 12 units must be earned at Cosumnes River College.

B. MAJOR Complete one of the following:
   1. One of the degree programs listed in this catalog with a minimum of a “C” grade in each course for the major.
   2. California State University Transfer General Education Requirements or IGETC. (Note: English 1A required) (See page 24 and 168).
   3. Lower division general education requirements of an accredited four-year college or university. Students should see a counselor.

C. Completion of the following general education requirements (21 units minimum):

   1. NATURAL SCIENCE (3 units minimum) selected from: Anthropology 1; Astronomy 1; Biology 1A, 1B, 2, 3, 6, 12, 13, 14, 16, 17, 25, 50, 51; Chemistry 1A, 2A, 5, 7, 11; Environmental Technology 4; Geography 1, 6; Geology 1, 3, 5, 6, 8, 12, 18, 59; Honors 47C (must have 3 units); Horticulture 1; Physical Science 1; Physics 4A, 5A, 10, 11; Psychology 2.
   2. AMERICAN INSTITUTIONS (3 units minimum) selected from: History 9, 14, 15, 17, 18, 21, 35; Political Science 1.
   3. OTHER SOCIAL AND BEHAVIORAL SCIENCES (3 units minimum) selected from: Agriculture Business 4, Anthropology 2, 12; Business 14, 15, 16; Communications Media 5; Economics 1A, 1B, 14, 55; Geography 2, 5, 10, 21; History 4, 5, 7, 8, 10, 11, 12, 28; Honors 47B (must have 3 units); Journalism 10, 12; Mathematics 1; Philosophy 7; Political Science 2, 10; Psychology 1, 3, 7; Social Science 16, 42, 45; Sociology 1A, 1B, 5, 7; Speech 13, 14, 20H.
   4. HUMANITIES (3 units minimum) selected from: Architecture 12; Art 3, 4, 5, 10, 11A, 12A, 14, 15B, 16, 21A, 26, 35, 37A, 40, 47; Comm Media 14; English 1B, 18, 26, 27, 29, 30, 31, 33, 34, 35, 36, 39, 40, 42, 47A; Film & Media Studies 10, 15A, 20; French 1A, 1B, 2A, 50A, 50B; Geography 21H; German 1A, 1B, 2A, 50A; Honors 47A (must have 3 units); Humanities 1, 2, 3, 4, 7, 21H; MUFHL 6, 8, 9, 10, 11; MUFHL 9; Philosophy 5, 8, 9, 10, 16, 20, 21; Photography 14, 40; Spanish 1A, 1B, 2A, 2B, 35, 50A, 50B; Theatre Arts 1, 8, 15A, 27, 28; Vietnamese 1A, 1B, 2A, 2B, 50A, 50B.
   5. LANGUAGES AND RATIONALITY (6 units). Select 3 units each from (a) and (b):
      (a) English Composition (3 units minimum) selected from: Business 8; English 1A, 57, 59, 60.
      (b) Communication and Analytical Thinking (3 units minimum) selected from: Accounting 1A, 60; Computer Information Science 3*, 51, 32A, 32B, 36A, 37; English 1C, 15, 15A, 15B, 15C; History 2; Journalism 20A; Management 21; Mathematics 51, 51A and 51B, 71, 81; veterinary science course; Philosophy 2, 4, 6; Psychology 4, 5; Speech 1, 2, 3, 8, 9, 15; Statistics 1.

   6. LIVING SKILLS (3 units minimum)
      (a) Any physical education activity course with a PER designation, totaling one unit. Students with medical excuses on file may enroll in Adapted Physical Education or be exempt from the physical education activity course requirement. Students receiving an exemption for any reason must complete a minimum of 3 units under (b) of this section.

   7. AND
      (b) Completion of a minimum of two units selected from the following: Business 41 and Computer Information Science 1 or CIS 3* or Journalism 1; Early Childhood Education 14 or Family & Consumer Science 14; English 10; Family and Consumer Science 10, 33, 34, 35, 38; Health Education 1; Human/Career Development 2, 4A, 4B, 5, 45, 51A, 51B, 51C; Human Services 21; Library 15, 30; Psychology 24, 25, 28, 34, 40; Sociology 3; Speech 10.

   OR
      (c) Military Service Credit (Honorable discharge) with minimum of one (1) year active duty service. Submit copy of DD214 to Admissions Office.

D. ETHNIC/MULTICULTURAL STUDIES REQUIREMENT

Students must fulfill a 3-unit Ethnic/Multicultural Studies course requirement. (Most of these courses may also be used to meet general education requirements.) Courses which satisfy this requirement are: Anthropology 2, 12; Business 15; Culinary Arts Management 64; Early Childhood Education 36; English 26, 27, 29, 33; Geography 2, 10, 21; History 12, 28; Humanities 4; Journalism 12; MUFHL 9; Philosophy 9; Social Science 42, 44, 45; Sociology 5; Speech 14; and Theatre Arts 8.

* Courses with an asterisk (*) are listed in more than one category but may be used to satisfy a requirement in ONLY ONE CATEGORY:

Graduation Competency Requirements

E. Demonstrate college-level competence in reading, in written expression and in mathematics. Competency in Basic Skills is satisfied by completing the following:

1. READING COMPETENCY - Satisfactorily passing a college-level reading examination or passing English 72 with a “C” grade or better. Students who possess an A.A. degree or higher shall be deemed competent in reading.

2. WRITTEN EXPRESSION COMPETENCY - May be satisfied by one of the following:
   Completion with a grade of “C” or better in English 1A, 57, 59 or 60 or Business 8 or an equivalent course at an accredited college.

3. MATHEMATICS COMPETENCY - Competency must be demonstrated by either:
   (a) Completion with a grade of “C” or better in Mathematics 51, 51B, 71 or higher level mathematics course
   (b) Obtaining a satisfactory score on a mathematics examination.

[Revised 7-10-2000]
Graduation Requirements

DEGREE AND CERTIFICATE PROGRAMS

Cosumnes River College offers certificate and degree career curricula to students planning to enter occupations directly upon completing their work at a community college. The college also offers two-year general education curricula for students who do not seek intensive training for specific jobs but rather desire to broaden their cultural backgrounds or become more effective citizens and/or parents. Many four-year institutions will give partial or full credit for courses in these areas completed with acceptable grades; however, these courses are not specifically designed for students planning to transfer to four-year institutions.

DEGREE PROGRAMS

Students majoring in a two-year curriculum and planning to graduate with the Associate in Arts or Science degree must comply with the graduation requirements listed in this catalog. Candidates for graduation must file applications for graduation.

Check the Academic Calendar (pages ii to iv) in this catalog and class schedules for the last date to file for graduation.

CERTIFICATE PROGRAMS

Certificate programs have been developed to assist those already employed in business and industry or those who desire to upgrade their skills or acquire specialized training, but who do not wish to pursue a degree program at the college. A planned sequence of courses has been developed with the assistance of community advisory committees. Upon completion of required courses, a Certificate of Completion is awarded.

Although some equivalent course work at other accredited institutions might apply toward a Certificate of Completion, a grade of “C” is required in each course leading to a certificate. A minimum of twelve (12) units must be completed at Cosumnes River College. Certificate programs which are scheduled for fewer than twelve (12) units may be completed by satisfying the certificate program requirements.

Students who qualify for a Certificate of Completion in any of the certificate programs listed in this catalog may petition for the issuance of the Certificate of Completion through the Admissions Office.

COMMENCEMENT EXERCISES

All students expecting to graduate must complete a petition for graduation available in the Admissions Office by the date set forth in the academic calendar.

Students may graduate at the end of the fall semester, end of the spring semester, or end of the summer sessions. Because commencement ceremonies are held only once a year in May, students who will complete their degree requirements during the following summer may attend the May commencement ceremonies with special arrangements made through the Student Activities Office. Those who complete their Associate in Arts or Associate in Science degree requirements in fall or spring are expected to attend the May ceremonies.

CATALOG RIGHTS REGARDING GRADUATION

Students attending regular sessions at any California community college, any California State University, the University of California, or any accredited institution of higher education, or any combination of same, may elect to meet the requirements in effect at the Los Rios college from which they intend to graduate as follows:

• Requirements in effect at the time of admission to a Los Rios college; or;
• Requirements in effect at the time the student originally enrolled in a regionally accredited college or university; or,
• Requirements in effect at the intended date of graduation from a Los Rios college.

A college may authorize or request substitution for discontinued courses.

Students changing their major field of study may be required to complete those requirements in effect at the time of the change of major.

Students must have attendance in at least one session (i.e., quarter, semester, or summer session) in each calendar year. Absence for attendance at another accredited institution will not be considered an interruption in attendance.
In addition to regularly scheduled credit classes, students may receive college credit for participation in the following alternative credit and study options:

**ADVANCED PLACEMENT TESTS (CEEB)**

Students enrolling at Cosumnes River College may be awarded units of credit for each Advanced Placement Test (CEEB) they have passed with scores of 3, 4 or 5. After completing 12 units at Cosumnes River College, a student in good standing may submit their CEEB/Advanced Placement Test. A maximum of 15 units may be earned by examination. Credit/units posted will be used when evaluating an A.A. or A.S. degree, but grades are not awarded. Credit may not be posted to the CRC transcript for courses which duplicate credit already allowed for Advanced Placement Examinations/CEEB. Students should meet with a counselor to obtain information on Advanced Placement Examinations/CEEB. All other tests must be submitted to the area department dean by petition for consideration of credit allowed.

**COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)**

After completing 12 units at Cosumnes River College, a student in good standing may submit scores on General Examinations, from the College Level Examination Program (CLEP) to the Admissions Office for college credit evaluation. A maximum of 30 units of credit may be granted toward completion of the general education requirements with the exception of the English requirement. No credit is granted for CLEP Subject Examinations. Scores must be at least in the 50th percentile. Students should be aware that some two-year and four-year colleges have the right to accept, modify, or reject the CLEP units. Students should meet with a counselor for more information on College Level Examination Program (CLEP).

**CREDIT BY EXAMINATION**

The college allows a regularly enrolled student in good standing, or one who is qualified by reason of special study, experience or training, to take a special examination to establish credit in a course in which the student is not formally registered. The college requires such a student to complete a minimum of 12 units of college work at Cosumnes River College with a “B” (3.0) average in all units attempted at the college. Under special circumstances, these requirements may be waived by petition. The Admissions Office will post grades earned by examination on the official transcript only after the student has completed 12 units. Students may not earn more than 15 units of credit by examination. Credit by examination is not awarded if such credit would duplicate that granted for previously completed college or high school course work.

Any student wishing to qualify for Credit by Examination must initiate a request for such credit with the appropriate area dean. If a Credit by Examination is approved, the examining instructor will determine the scope and form of the test to be taken by the student.

Students who pass the examination will receive a pass grade which the college identifies under the notation “Credit by Examination” on the transcript. Students will be charged the appropriate per unit fee for units granted through the credit by examination process. Fees are waived for students covered under formal articulation agreements.

The college does not include this pass grade in computing the student’s grade point average.

**CREDIT FOR MILITARY SERVICE**

Credit for military service is granted upon presentation of papers showing honorable discharge from and active duty of one year or more in the United States armed forces. A veteran may receive eight (8) units of elective credit by submitting a copy of the DD 214 separation papers and a petition. Veterans may also receive credit for satisfactory training completed in service school.

After enrolling at CRC, a veteran may apply for evaluation of military service experience for college credit. A copy of the veteran's DD214 separation paper MUST be submitted at the Veterans Affairs Office and a petition completed after the first semester of attendance. Credit granted for military service is based on American Council on Education.

Students in the six-month reserve training program are not eligible for military credit. This is in accordance with the recommendation of the American Council on Education issued September 1964.

**HONORS PROGRAM**

The Cosumnes River College Honors program is designed specifically for academically accomplished students--and those seeking a challenge with the ability and desire for high achievement. Through its series of special Honors courses, the program provides opportunities for intellectual growth beyond those generally found in most lower division programs. Designed for motivated students, these one to three unit courses are linked to a particular course and are intended to provide in-depth, rigorous treatment of certain related topics. These classes may require concurrent or previous enrollment in another course. Prospective Honors Program students should possess the ability to think and work independently, to write clearly and purposefully, and to cooperate in the spirit of discovery and understanding.

Honors courses are special intensive courses in which students will confront and attempt to resolve difficult questions that arise in a careful study of the issues found in the discipline(s). Honors students are expected to research aspects of these questions and present their findings to the class in written form for seminar discussion. Field trips to attend events or to do research may be an integral part of the Honors course experience. Students who successfully complete units from Honors courses may be able to count...
these units as part of the Transfer Breadth Requirements (see page 24). Finally, students who successfully complete a minimum of three units in at least two different Honors courses with an overall GPA of 3.0 will be awarded the title Cosumnes River College Honors Program Graduate. This designation will be placed on their permanent transcripts.

ON-LINE INSTRUCTION

Cosumnes River College may offer instruction via the Internet. Learning opportunities using this medium will come in two modes. In the first, all or most course instruction takes place on-line through the use of materials and activities posted on an Internet site. In the second mode, the instructor of a class that meets face-to-face in the traditional way may use the Internet to post learning materials, resources and assignments, as well as provide individual contact with students through e-mail or other electronic means. Registration and rules governing these courses are the same as those of traditional in-class courses.

ROTC

Aerospace Studies: Air Force ROTC is available to Cosumnes River College students through a program offered at CSU, Sacramento. There is no obligation to join the military to take the course. Students may take courses to explore an interest in a military career. Two-, three-, and four-year programs are available, leading to a commission in the United States Air Force. Scholarships are available to qualified students. Classes are conducted at CSUS. Topics include military history, management, leadership, problem solving, ethics, public speaking, world politics, international relations, and current events.

To apply for the program or for more information, contact the Unit Admissions Officer at (916) 278-7315. It is recommended that applications be submitted no later than the first semester of the sophomore year.

Military Science: Army ROTC is available to Cosumnes River College students through a program offered at CSU, Sacramento. Military Science Department offers hands-on training in management and leadership. There is no obligation to join the military by taking the course. The program stresses the following leadership dimensions: oral and written communications, oral presentations (formal briefings), initiative, sensitivity, influence, planning and organizing, delegation, administrative control, problem analysis, judgement, decisiveness, physical stamina, and mission accomplishment. Also stressed are current events, national and international politics, military affairs, ethics training, and human relations with emphasis on eliminating racial and gender discrimination. Management and leadership are taught using the U.S. Army as a model. Two and three year scholarships are available, covering up to $9,000 per year for tuition, $225 per semester for books and supplies, $200 per semester for lab fees, and $150 a month tax free stipend during the academic year.

SPECIAL STUDIES

Special study provides independent or group study in areas of special interest. While enrollment in a special study is usually on an individual basis, occasionally it is tailored to the needs of a particular group. Students in special studies courses must enroll and schedule through the regular registration process. (See courses numbered 49 and 99.)

Students may petition to enroll in one to three units in a single department per semester, with a maximum of six (6) units of special studies allowed per semester. A maximum of nine (9) units of special studies is allowed toward graduation requirements. Anyone may apply for permission to pursue a special studies project, designed to foster special knowledge, skills, and experience not available in any one regularly scheduled course. It is the student’s responsibility to develop a program of study and evaluation approved by the supervising instructor. Petitions should be filed prior to the end of the first nine-week classes. (See Academic Calendar.)

Students can normally expect to successfully accomplish only one such project per semester, as one unit of credit represents approximately 54 hours of work.

It is recommended that students, prior to enrolling, complete college courses or have actual experience and training in the field in question.

To obtain special studies credit, the student must:

- Discuss and outline the proposal with the supervising instructor
- Obtain an application from the area dean’s office
- Submit the completed application to the supervising instructor who will obtain the necessary approval, and
- Upon approval, register for Special Studies 49 in the Admissions Office

NOTE: Transfer institutions may or may not accept special studies units.

STUDY ABROAD PROGRAMS

Study abroad can be an enlightening, maturing, and life-changing experience. Students are challenged to re-examine themselves, their attitudes and their studies as they learn to understand new and different cultures.

In cooperation with the American Institute for Foreign Study and the Central Valley Consortium, the Los Rios Community College District offers unique study opportunities in such places as London, England; Salamanca, Spain; Paris, France; and Florence, Italy.

All studies are typical of regular academic programs taught on the CRC campus, yet utilize travel/field trips, cross-cultural experiences and foreign resources.

For more information and applications, call the Dean of Communication, Visual and Performing Arts, 601-7187.

(Continued on next page)
TELEVISIONED INSTRUCTION

Cosumnes River College's televised instruction provides a different way for students to take courses toward an AA Degree, certificate or transfer. Taking the courses at home or at a convenient outreach center can save time, money and transportation or childcare costs.

CRC offers two types of televised instruction:

**Distance Learning:** The instructional television system brings students live, interactive classes, broadcast from the main campus in Sacramento to outreach centers throughout the district, and over several area cable systems. Students participate in classes by telephone (toll free) to report attendance and ask questions or participate in discussions. Students attend campus or outreach center classes only to take exams, with accommodations made for student schedules. With the exception of textbooks, class materials may be picked up or mailed. Assignments may be faxed or mailed to instructors. Student participation is expected.

**Telecourses:** Telecourses are lessons on video carried over cable television. Students may tape programs for later viewing, but must attend an orientation and a specified number of lectures with the local instructor. Orientations and follow-up meetings are scheduled for various campuses. Assignments may be mailed, faxed, or in some cases, e-mailed to the local instructor.

In addition to the Folsom Lake and El Dorado centers, CRC also serves sites located at businesses, schools, fire stations and community centers. For more information, call (916) 691-7289 or consult the current class schedule.

COOPERATIVE WORK EXPERIENCE & INTERNSHIPS

**Cooperative Work Experience Education (CO-OP)** is an academic program in which students apply what they have learned in the classroom to their job or internship site, and work toward earning college credits. There are two types of programs: vocational and general.

**Vocational Work Experience** provides students with opportunities to develop or add marketable skills related to their vocational study programs.

**Eligible students must:**

- Be working in a paid or non-paid job or internship. Students who do not have a job or internship and would like assistance should contact the Cooperative Work Experience Education Office. Students must have a cooperating employer by the end of the third week of the semester (end of the first week of a summer session) to remain in the program.
- Be enrolled in a minimum of 7 units during the semester (may include CO-OP units) . . . or qualify for the "Returning Student" status.
- With employer's assistance, establish new on-the-job skills that will be documented.
- Attend a one-hour weekly workforce development class . . . or qualify for the "Returning Student" status. However, attendance is required for everyone for the first three orientation sessions.

- Register for 1, 2, 3, or 4 units. One unit of credit may be earned for each 75 hours of paid work experience or for 60 hours of non-pay experience. A total of 16 units may be earned in Vocational Work Experience.
- Students working in their college majors and taking, or have taken a course in that area, should enroll in that area's work experience class (e.g. a teacher's aid should enroll in Human Services 48 and a sales clerk should enroll in Business 98).

Interested students may earn college credit in the following majors:

- Accounting
- Administration of Justice
- Agriculture
- Business
- Architecture
- Automotive Mechanics Technology
- Business
- Communications Media
- Computer Information Science
- Construction Management Technology
- Culinary Arts Management
- Drafting Technology
- Early Childhood Education
- Environmental Technology
- Fire Technology
- Horticulture
- Human Services
- Interior Design
- Lighting Design
- Management
- Marketing
- Medical Assisting
- Photography
- Theatre Arts
- Veterinary Technology

CO-OP has two different ways to qualify for the program:

**New (1st Time) Students:**

A. You must be enrolled in no fewer than 7 units including CO-OP.
B. You are working a paid or non-paid job or internship.
C. You must attend the class that meets each week. This class will cover workforce/career transition issues.
D. Your grade and units are earned based on your performance in the workplace (development new skills) and classroom assignments.

**Returning Students:**

A. You have completed 7 units at a community college or four-year institution in California.
B. You are working a paid or non-paid job or internship.
C. No class attendance is required for this program except for the first three "orientation" sessions. However, you must establish new on-the-job skills with your employer and complete the necessary forms.

(continued next page)
D. Your grade and units are earned based on your work performance and outside homework assignments that emphasize career transition.

**General Work Experience:** General work experience education assists students in learning about the world of work and is open to all students regardless of major or job. Like vocational work experience, it is designed for students wanting to apply skills learned in the classroom to their actual job.

College credit (1-3 units) will be earned for working in the students' current job per semester. No more than six units may be earned in the program. One unit of credit may be earned for each 75 hours of paid work experience or for 60 hours of volunteer experience. Students must have a cooperative employer by the end of the third week of the semester (end of the first week of a summer session) to remain in the program.

Eligible students must meet all requirements listed for Vocational Work Experience Credit above and:

- Register for “General Work Experience” (Work Experience 97), rather than Cooperative Work Experience courses.

For more information, call 691-7372 or see the Cooperative Work Experience Education Coordinator located in Transition Services, L-217.
COSUMNES RIVER COLLEGE COURSES CERTIFIED TO MEET CSU GENERAL ED

A total of 39 units of lower division general education may be certified by Cosumnes River College. There are additional general education units which will be taken at the upper division level, to be completed at the university from which the student will graduate.

THE COMPLETION OF THIS PATTERN WILL ALSO SATISFY THE “MAJOR” REQUIREMENTS OF AN AA DEGREE.

IT IS VERY IMPORTANT THAT THE STUDENT SEEK THE AID OF A COUNSELOR WHEN SELECTING COURSES, SINCE MANY VARIABLES, LIKE CHOICE OF MAJOR, AFFECT WHICH COURSES WOULD BE APPROPRIATE.

Students completing 39 units, as specified in the General Education pattern listed below, may request certification of completion at the time of transfer to the California State University. No more than 30 semester units may be certified for categories B, C, and D combined.

A. ORAL, WRITTEN COMMUNICATION AND CRITICAL THINKING - Nine units to include one course from each group:

1. Speech 1, 9, 15
2. English 1A
3. English 1C; Philosophy 2, 4, 6; Speech 2, 3

B. PHYSICAL UNIVERSE AND ITS LIFE FORMS - minimum of 9 units total, with at least three units from each category and at least one course containing a laboratory from (1) or (2). (Courses with single * indicate a laboratory only course; courses with double ** indicate a lecture and laboratory course.)

1. Physical Universe - Astronomy 1, 2*; Chemistry 1A**, 1B**; 2A**, 2B**, 5**, [7], [7L]; Geography 1, [6], 11*; Geology 1, 2*, 3, 4*, 5, 6**, 8, 12, 18; Physical Science 1**; Physics 4A**, 5A**, 5B**, 10, [11].


The laboratory-only courses marked with * may be used to satisfy the laboratory requirement only when the corresponding lecture course is also taken; i.e., Anthropology 11* with Anthropology 1; Astronomy 2* with Astronomy 1; Geography 11* with Geography 1; Geology 2* with Geology 1; Geology 4* with Geology 3.

C. ARTS, HUMANITIES, FOREIGN LANGUAGES, LITERATURE AND PHILOSOPHY - Minimum of 9 units to include at least one course from the Arts and one from the Humanities:

1. ARTS

Architecture 12, 40; Art 3, 4, 5, 10, 11A, 11B, 12A, 12B, 14, 15A, 15B, 16, 17A, 17B, 21A, 26, 35, 36, 39, 40, 47; Communication Media 14; Film & Media Studies [10], [15A]; MUFHIL 2, 3A, 6, 8, 9, 10, 11; MUIVI 22A, 22B, 30A, 30B, 31A, 31B, 32, 39, 42A, 42B; MUSM 9; MUP 13, 14, 18, 19, 21; Photography 1, 14, 40; Physical Education R-1 (Dance); Theatre Arts 1, [8], 19, [28], 47.

2. HUMANITIES

English 1B, 15, [15A], [15B], [18], 26, 27, 29, 30, 31, 33, 34, 35, 36, 39, 40, 42, [47A]; French 1A, 1B, 2A, 2B, 42A, 42B; [Geography 21H]
German 1A, 1B, 2A, 42A;
Honors 47A (must have 3 units);
Humanities 1, 2, 3, 4, 7, [21H];
Philosophy 5, 8, 9, 10, 13, 14 16, 20, 21;
Sign Language [1], [2], 3;
Spanish 1A, 1B, 2A, 2B, 35;
Vietnamese 1A, 1B, 2A, 2B, 42A, 42B.

D. SOCIAL AND BEHAVIORAL SCIENCES - Minimum of 9 units:

1. American History and Institutions can be met by one of the following combinations:

a. One course from History 9, 14, 15, 17, 18, or 35 paired with Political Science 1, or
b. One course from History 14 or 17 paired with one from History 15, 18 or 21.

2. Minimum of three units (one course selected from the following): [Agriculture Business 4]; Anthropology 2, 12, Architecture 38; Business 16; Communications Media 5; Economics 1A, 1B; Family and Consumer Science 34; [Film & Media Studies 20]; Geography 2, 5, 9, 10, 21; History 4, 5, 7, 8, 10, 11, 12, 28; Honors 47B (must have 3 units);

Journalism 10, 12; Philosophy 7; Political Science 2, 10; Psychology 1, 2, 3, 4, 7, 34; Social Science 16, 42, 44, 45; Sociology 1A, 1B, 5, 7; Speech 8, 13, 14, [20H].

E. LIFE-LONG UNDERSTANDING AND DEVELOPMENT - Minimum of 3 units: English 10; Family and Consumer Science 10, 33, 35, 38; Health Education 1; Human/Career Development 2, 45; Human Services 21; Physical Education activity (one course); Psychology 24, 25, 26, 28, 40; Sociology 3; Speech 10. OR Military Service Credit: Honorable discharge with minimum of one (1)year active duty service.

[ ] Courses in brackets are pending approval; see a counselor before enrolling in these courses.

UPPER DIVISION TRANSFER APPLICANTS WITH 56 OR MORE TRANSFERABLE SEMESTER UNITS

1988 and later high school graduates may qualify for admission by completing a minimum of 30 semester units selected from courses in English, arts and humanities, social science, science, and mathematics with a grade of "C" or better in each course. All CSU general education requirements in communication in the English language (at least 9 semester units) and in mathematics (usually 3 semester units) must be completed as part of the 30-semester unit requirement. The remainder of the units can be selected from any of the designated areas.

Note: Effective Spring 1998, junior and senior transfers will be admitted to CSU campuses only if they were eligible to enter directly from high school or have a grade point average of 2.0 in 56 transferable semester units and have completed with a grade of "C" or better 30 semester units from CSU’s G.E. Breadth or all IGETC requirements, including the completion of CSU’s G.E. requirements in English language and mathematics. If you have questions about how this will affect you, see your counselor as soon as possible.
COURSES DESIGNATED BY CRC AS BACCALAUREATE LEVEL FOR TRANSFER TO CALIFORNIA STATE UNIVERSITY SYSTEM 2000-2001

Accounting 1A/B, 5, 49
Administration of Justice 51, 52, 53, 61, 64, 71, 72, 80, 81, 82, 83, 86, 87, 88, 89, 91, 98*
Agriculture Business 1, 2, 3, 4, 98*
Anthropology 1, 2, 11, 12, 49
Architecture 1, 3, 3A, 5, 6, 6A, 7, 10, 10A, 12, 16, 24, 30, 32, 38, 40, 41, 42, 48*, 49
Art New Media 22
Astronomy 1, 2, 49
Automotive Mechanics Technology 49, 51, 52, 53, 57, 58, 62, 63, 67, 72, 73, 74, 77, 81, 82, 83, 85, 93, 98*
Biology 1A, 2, 3, 6, 12, 13, 14, 16, 17, 24, 25, 26, 30A, 34A/B, 35, 36, 37A, 37B, 37C, 39, 40, 42, 46, 47, 49
Business 8, 10, 14, 15, 16, 18A/B, 20, 41, 42, 43, 46, 47, 49, 98*
Chemistry 1A/B, 2A, 2B, 5, 7, 7L, 11, 12A/B, 46, 49, 51
Communications Media 5, 14, 26, 46, 49, 54, 56, 60, 63, 64, 65, 66, 70, 74, 76, 80, 83, 84, 85, 90, 91, 92A/B, 93, 94A/B/C/D, 95A/B/C, 96, 98*
Construction Management Technology 50, 51, 56, 59
Culinary Arts Management 50, 51, 52, 53A, 53B, 54, 55, 56, 57, 58, 59, 60, 61, 62, 64
Drafting Technology 49, 51, 52, 66, 67, 98*
Early Childhood Education 1, 3, 4, 5, 6, 7, 8, 9, 11, 13, 13A, 13B, 14, 15, 19, 24, 36, 46, 48*, 49, 52
Economics 1A, 1B, 14, 49
Engineering 2, 10, 17, 27, 35, 45
English 1A, 1B, 1C, 10, 12, 14A, 14B, 15, 15A, 15B, 15C, 17C, 17D, 18, 26, 27, 29, 30, 31, 33, 34, 35, 36, 39, 40, 42, 46, 47A, 49
Family and Consumer Science 10, 14, 18, 33, 34, 35, 38, 49
Film & Media Studies 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 15A, 20
Fire Technology 1, 2, 3, 4, 5
French 1A/B, 2A/B, 42A, 42B, 46, 49
Geography 1, 2, 5, 6, 9, 10, 11, 14, 19, 19A/B/C, 21, 21H, 26, 46, 49
Geology 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 18, 24, 49, 59
German 1A, 1B, 2A, 42A, 46, 49
Gerontology 41, 42, 48*
Health Education 1, 10, 11, 12, 14, 25, 49
History 2, 4, 5, 7, 8, 9, 10, 12, 14, 15, 17, 18, 21, 28, 35, 46, 49
Honors 47A, 47B, 47C, 47D
Horticulture 1, 2, 51, 52, 70, 75, 81, 86
Human/Career Development 2, 4A, 4B, 5, 6, 8, 9, 43, 44, 45, 49
Humanities 1, 2, 3, 4, 7, 21H, 49
Interdisciplinary Studies 4A, 4B, 4C
Interior Design 20, 21, 30, 31, 35, 45, 98*
Journalism 1, 10, 12, 20A, 20B, 30, 33, 35A/B, 40, 49
Library 15, 30
Management 1, 21, 23, 24
Marketing 20, 22, 24, 26
Mathematics 2, 9A/B/C, 11, 16A/B, 20, 29, 35, 42, 43, 44, 46, 49
Music: MUFHL 2, 3A, 3B, 4A, 4B, 6, 8, 9, 10, 11; MUIVI 22A, 22B, 23A, 23B, 30A, 30B, 31A, 31B, 39, 42A, 42B, 43A; MUP 13, 14, 16, 18, 19, 21, 22, 32; MUSM 9, 46, 49
Philosophy 2, 4, 5, 6, 7, 8, 9, 10, 16, 20, 21, 49
Photography 1, 14, 40, 41, 42, 44, 47, 49, 98*
Physical Education Activity Courses PER 1, 3, 4
Physical Education Theory Courses PET 12, 13, 14, 15, 16, 17, 20, 24, 25, 26, 28, 49
Physical Science 1
Physics 4A/B/C, 5A/B, 10, 11, 49
Plant Science 1, 2, 67, 71, 73, 74, 82, 83, 87
Political Science 1, 2, 10, 49
Psychology 1, 2, 3, 4, 5, 7, 11, 24, 25, 28, 34, 40, 49
Real Estate 19
Sign Language Studies 1, 2, 3, 49, 54
Social Science 16, 42, 44, 45, 49
Sociology 1A, 1B, 3, 5, 7, 49
Spanish 1A/B, 2A/B, 35, 42A/B, 46, 49, 52A
Speech 1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 13, 14, 15, 20H, 49
Statistics 1, 49
Student Government 1, 49
Vietnamese 1A, 1B, 2A, 2B, 42A, 42B, 49

* Work Experience 48 and 98 - not more than 8 units transferable.

COSUMNES RIVER COLLEGE 2000 - 2001
UNIVERSITY OF CALIFORNIA
TRANSFER REQUIREMENTS

1. Students who were eligible for admission to the university when they graduated from high school (meaning they satisfied the Subject Scholarship and Examination Requirements) are eligible to transfer if they have a C (2.0) average in transferable coursework.

2. Students who met the Scholarship Requirement but not the Subject Requirement must take transferable college courses in the missing subjects earning a "C" or better in each required course, and have an overall "C" average in all transferable coursework to be eligible to transfer.

Students who met the Scholarship Requirement but not the Examination Requirement must complete a minimum of 12 semester (18 quarter) units of transferable work and earn an overall "C" (2.0) average in all transferable college coursework completed.

3. Students who were not eligible for admission to the university when they graduated from high school because they did not meet the Scholarship Requirement must:

   a. Complete 90 quarter units or 60 semester units of transferable college credit with a grade point average of at least 2.4, and;

   b. Complete the following courses pattern, earning a grade of C or better in each course:

      • two transferable college courses (3 semester or 4-5 quarter units) in English composition; and
      • one transferable college course (3 semester or 4-5 quarter units) in mathematical concepts and quantitative reasoning; and
      • four transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral sciences, the physical and biological sciences.

   (Students who satisfy the Intersegmental General Education Transfer Curriculum prior to transferring to UC will satisfy Option 3b above of the new transfer admission requirements.

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 will be 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 college’s Admissions Office. Students are urged to contact their counselors for additional information.

CALIFORNIA ARTICULATION NUMBER SYSTEM (CAN)

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

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

Participating campuses are listed in the class schedule. California Articulation Numbers are listed parenthetically at the end of each course description in this catalog.

26 2000 - 2001 COSUMNES RIVER COLLEGE
INTERSEGMENTAL GENERAL EDUCATION
TRANSFER CURRICULUM
(IGETC) 2000-2001

Students transferring to CSU and UC (students enrolling in college Fall 1991 or later) may fulfill the lower division breadth and general education requirements for any campus of the University of California or the California State University by completing the IGETC or completing the specific lower division breadth and general education requirements of the campus to which they intend to transfer.

Completion of all of the requirements in the Interssegmental General Education Transfer Curriculum (IGETC) will permit a student to transfer from a community college to a campus in either the California State University or University of California system without the need, after transfer, to take additional lower-division general education courses to satisfy campus general education requirements.

The course requirements for ALL AREAS must be completed before the IGETC can be certified. All courses must be completed with grades of “C” or better.

AREA 1 - English Communication

CSU - Three courses required, one from each group below.

UC - Two courses required, one each from Group A and Group B

GROUP A: English Composition (one course required), English 1A

GROUP B: Critical Thinking-English Composition (one course required), English 1C, Philosophy 2

GROUP C: Oral Communication-CSU ONLY (one course required) Speech 1, 9, 15.

AREA 2 - Mathematics Concepts and Quantitative Reasoning

(One course required)

MATH 9A*, 9B*, 9C*, 16A*, 16B*, 29*, 42, 43*

Psychology 5; Statistics 1

AREA 3 - Arts and Humanities

(At least three courses, with at least one from the Arts and one from Humanities, nine semester units required)

ARTS: Art 3, 4, 5, 10, 35, 47; Communications Media 14*; Film & Media Studies 10, 20; MUFHL 2*, 3A, 6*, 9, 10, 11; Photography 14*; Theatre Arts 1, 2, 3, 8.

HUMANITIES: English 18, 26, 27, 29, 30, 31, 33, 34, 35, 36, 40, 42, 47A

French 2A, 2B

Geography 21H

German 2A

Humanities 1, 2, 3, 4, 7, 21H

Philosophy 5, 6, 7, 8, 9, 10, 13, 14, 16, 20, 21

Spanish 2A, 2B, 35

Vietnamese 2A, 2B

AREA 4 - Social and Behavioral Sciences

(At least three courses from at least two disciplines, nine semester units required)

Anthropology 2, 12

Business 16*

Communications Media 5

Economics 1A

Family and Consumer Science 34

Geography 2, 5, 10, 21

History 4, 5, 7, 8, 9, 10, 11, 12, 14*, 15*, 17*, 18*, 21*, 28, 35

Journalism 12

Political Science 1*, 2, 10

Psychology 1, 3, 7, 25, 28, 34

Social Science 16*, 42, 44, 45

Sociology 1A, 1B, 5

Speech 14, 20H

* Indicates that this course may not be used for AREA 4 credit if the course is used for CSULI’S History, Constitution, and American Ideals requirement.

AREA 5 - Physical and Biological Sciences

(Two courses, one Physical Science course and one Biological Science course, at least one must include a laboratory, seven to nine semester units)

PHYSICAL SCIENCES: Astronomy 1, 2**;

Chemistry 1A**, 1B**, 2A**, 2B**, 7, 7L;

Geography 1, 6, 11**;

Geology 1, 2**, 3, 4**, 5, 8, 12;

Physical Science 1**;


BIOLOGICAL SCIENCES: Anthropology 1, 11**;


* Credit limit - see counselor.

** Lab courses.

Language Other than English (UC Requirement ONLY)

Competency is demonstrated by completion of one foreign language course, or completion of two years of a foreign language in high school with a grade of “C” or better.

French 1A, German 1A, Sign Language Studies 1, Spanish 1A, Vietnamese 1A

CSU Graduation Requirement in U.S. History, Constitution, and American Ideals

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

Six semester units, choose one two-course combination from section 1 or 2:

1) Political Science 1 plus one course from History 9, 14, 15, 17, 18, or 35; OR

2) History 14 or 17 paired with one course from History 15, 18 or 21

Note: Effective Spring 1998, junior and senior transfers will be admitted to CSU campuses only if they were eligible to enter directly from high school or have a grade point average of 2.0 in 56 transferable semester units and have completed (with a grade of “C” or better) 30 semester units from CSU’s General Education requirements, including the completion of CSU’s G.E. requirements in English language and mathematics. If you have questions about how this will affect you, see your counselor as soon as possible.
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Astronomy 1, 2, 49
Biology 1A, 2, 3, 6, 12*, 13*, 14, 16*, 17*, 25, 26, 49
Business 16, 18A*/B*, 20
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Vietnamese 1A, 1B, 2A, 2B, 49

* All campuses of the University of California system give credit toward graduation for the above courses; however, a certain combination of courses has unit limitations. For example, a maximum of three units is allowed for History 14 and 17 combined. Check with your counselor regarding these.
DEGREES AND CERTIFICATES

Requirements are identified for each vocational and general education program and, for most, a course sequence is suggested. The courses required in a program must all be completed to earn the degree or certificate, regardless of the order in which they are completed.

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DESCRIPTION OF COURSES

COURSE NUMBERING SYSTEM

Numbering / Designation

1 - 49  Courses numbered 1 through 49 are generally articulated for transfer to four-year institutions and are intended to meet major, general education, breadth or elective credit requirements.

50 - 99  Courses numbered 50 through 99 are primarily occupational/technical and meet Associate Degree requirements. Some are acceptable for transfer by four-year institutions offering similar subject matter baccalaureate degrees.

100 - 199  Courses numbered 100 through 199 are generally part of specialized programs, such as apprenticeship, criminal justice or fire technology post-service training.

200 - 299  Courses numbered 200 through 299 are credit courses that are considered developmental or remedial and are not acceptable for Associate Degree or transfer credit.

The Board of Governors has adopted regulations effective July 1, 1990, limiting the number of remedial course units to thirty (30). Students may petition for a waiver to the 30-unit limitation through their counselor.

300 - 399  Courses numbered in the 300's are noncredit courses. (Example: Human/Career Development 300, Supervised Tutoring)

Number & Letter - Courses with both a number and a letter are intended as sequential offerings. (Example: Physics 4A, 4B, 4C)

WHAT ARE PREREQUISITES, COREQUISITES, and ADVISORIES?

It is the intent of Cosumnes River College to guide students into courses in which they will have the greatest chance for academic success. Therefore, you will find courses which have prerequisites, corequisites or advisories in their description. Following are the definitions for prerequisites, corequisites and advisories on recommended preparation:

a) "Prerequisite" means a course that a student is required to meet in order to demonstrate current readiness for enrollment in a course or educational program.

b) "Corequisite" means a course that a student is required to simultaneously take in order to enroll in another course.

c) "Advisory on recommended preparation" means 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.

Prerequisite Challenge

Procedure For Students

If you feel that you can meet the requirements, or one of the conditions below exists, then you can challenge a prerequisite.

A Prerequisite Challenge Form can be obtained from the Counseling Office or any instructional area office. The form will explain procedures. Criteria for challenging a course are:

1) You have knowledge or ability to succeed in the course without the prerequisite.

2) The course which provides the prerequisite is not readily available.

3) You believe that the prerequisite is discriminatory or being applied in that manner.

4) You believe that the prerequisite was established in violation of regulations and/or the established District-approved policy and procedures.

Once you have completed the challenge procedure, your challenge will be reviewed by a Prerequisite Challenge Committee. You will be informed, in writing, of the committee’s determination within five (5) instructional working days.
## PROGRAM ABBREVIATIONS

(used in degrees and certificates listed in this catalog)

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<td>MUFL</td>
<td>Music Fundamentals/History &amp; Literature</td>
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<td>MUIVI</td>
<td>Music Instrumental/Voice Instruction</td>
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<td>MUSM</td>
<td>Music Specializations</td>
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<td>SI LA</td>
<td>Sign Language Studies</td>
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<td>Teacher Aide</td>
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<td>V T</td>
<td>Veterinary Technology</td>
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<tr>
<td>W EXP</td>
<td>Work Experience</td>
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COLLEGE & ACADEMIC REGULATIONS

UNIT OF WORK
College work is measured in terms of the semester "unit." In recitation-lecture courses, one hour in the classroom and two hours of study preparation per week constitute a unit of work. In the laboratory, three hours in the classroom per week with no outside study constitute one unit of work. Students can find the number of units of credit with each course description.

GRADABLE AND GRADE POINT AVERAGES
At the end of each semester or summer session, a report of academic performance is made for every course undertaken. The grading standards, with their grade point equivalents, are as follows:

- A - Excellent ........................................ 4 grade points per unit
- B - Good ............................................. 3 grade points per unit
- C - Satisfactory .................................... 2 grade points per unit
- D - Passing, less than satisfactory ................ 1 grade point per unit
- F - Failing .......................................... 0 grade points, no units earned

- CR - Credit ........................................... Not computed in GPA, but affects progress probation and dismissal
- NC - No Credit ...................................... Not computed in GPA, but affects progress probation and dismissal
- I - Incomplete ..................................... Not computed in GPA, but affects progress probation and dismissal
- IP - In Progress ................................. Course transcends semester limitation
- RD - Report Delayed

W - Withdrawal ................................. Not computed in GPA, but affects progress, probation and dismissal

"CREDIT-NO CREDIT" GRADING
A student may elect one course per semester to be graded on a Credit or No Credit basis. A request card must be filed with the Admissions Office for this option prior to the deadlines published in the class schedules and in the calendar at the front of this catalog. The equivalent of an "A", "B" or "C" received for the course will be recorded as "CR", with units earned. The equivalent of "D" or "F" will be recorded as "NC", with no units earned. Units attempted for Credit-No Credit grades are not computed in the grade point average, but are used for determining Progress Probation and Progress Dismissal. (See following page.)

A maximum of 15 credit units may be applied toward the Associate in Arts or Science degree.

Once elected, the Credit-No Credit grade may not be changed to a letter grade ("A", "B", "C", "D", "F") assigned by the instructor.

GRADES OF "INCOMPLETE"
An incomplete grade, "I", may be assigned by the instructor when, in the judgment of that instructor, the student is unable to complete the course requirements before the end of the semester due to unforeseeable, emergency and justifiable circumstances. To receive credit for the course, the incomplete work must be finished no later than one year from the end of the semester in which it was assigned. A final grade will be assigned when the incomplete work has been finished and evaluated, or when the time limit for completing the work has elapsed. A student receiving an incomplete may NOT re-enroll in the course. A student may petition for a time extension due to extenuating circumstances.

GRADES OF "IN PROGRESS"
A student receiving an in progress grade must re-enroll in the course in the subsequent semester. Failure to re-enroll will result in a letter grade being assigned in lieu of the in progress.

GRADES OF "W"
WITHDRAWAL FROM CLASS
A student may withdraw from full semester courses prior to the end of the fourth week without notation being placed on the permanent academic record. Withdrawals occurring between the dates allowed by the Academic Calendar will be noted on the permanent academic record as "W's".

"Ws" are used for determining Progress Probation and Progress Dismissal. (See the Academic Calendar for the last date to receive a "W" notation.) Under extenuating circumstances (verified cases of accidents, illness or other circumstances beyond the control of the student), a student may petition for withdrawal at any other time. After consultation with the instructor and with administrative approval, such withdrawal may be recorded as a "W." Withdrawal deadlines for courses of less than a semester in length (6-week, 9-week, etc.) are shown in the calendar and in the Class Schedule.

Military Withdrawal: An "MW" will be assigned only to students who are members of an active or reserve military service, and who receive orders compelling a withdrawal from courses. Upon verification of such orders, the "MW" may be assigned at any time, even after the official withdrawal period is over. The "MW" will not be counted when calculating progress probation and dismissal. It is the student's responsibility to arrange for a refund of enrollment fees, if academic credit has not yet been granted.

GOOD STANDING
Both quality of performance and progress toward completion of objectives are considered in determining a student's eligibility to attain or remain in good standing and attendance at a Los Rios college. A student merits good standing only by completing 12 or more semester units with a 2.0 GPA on a 4-point grading scale and by completing 50 percent or more of all enrolled units.

It is the instructor's responsibility to notify the student, at the mid-term date, if (and only if) that student is making less than satisfactory progress.
ACADEMIC HONORS

Each semester, honors may be earned by students enrolled in 12 units or more, nine (9) of which must be graded on a letter grade basis exclusive of Credit (CR). Students will be placed on the Honors List if they earn a grade point average of at least 3.0. If they earn a grade point average of 3.5 or better they will be placed on the Highest Honors List.

ACADEMIC RECOGNITION

Outstanding students are recognized for their academic achievement each year at the annual Spring Honors and Awards Night. A handout identifying both the subject areas and the eligibility requirements for the awards is available in the Student Development Office.

HONORS AT GRADUATION

Students who maintain a high scholarship average are eligible for honors at graduation. Students who maintain a scholarship average of 3.5 or better are eligible for graduation with highest honors, and students who maintain a scholarship average of 3.0 or better are eligible for graduation with honors. The published lists of students are compiled from the data available at time of publication and may be subject to subsequent revision.

PROBATION

There are two types of probation: academic and progress:

Academic Probation: A student who has attempted at least 12 units is placed on Academic Probation if the student has earned a grade point average below 2.0.

Progress Probation: A student who has enrolled in a minimum of 12 semester units is placed on Progress Probation when “W,” “I,” and “NC” grades are recorded in one half or more of all units in which a student has enrolled.

Unit Limitation:
A student on either Academic or Progress Probation may be limited to 12 units plus a physical education activity course, or to a maximum load recommended by the student’s counselor.

Removal from Probation:
A student on Academic Probation is removed from probation and achieves good standing when the student’s cumulative grade point average is 2.0 or higher.

A student on Progress Probation is removed from probation and placed in good standing when the “W”, “I” and “NC” units drop below one half.

Computations:

<table>
<thead>
<tr>
<th>Grade Point Average =</th>
<th>Total Grade Points Earned (divided by)</th>
<th>Total Units Attempted with letter grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progress Percentage   =</td>
<td>Total Units with “W”, “I” and “NC” (divided by)</td>
<td>Total Units Enrolled</td>
</tr>
</tbody>
</table>

Academic Dismissal:
A student on Academic Probation is subject to dismissal when the student earns a cumulative grade point average of less than 2.0 in all units attempted in each of three consecutive semesters.

Progress Dismissal:
A student on Progress Probation is subject to dismissal if one half or more of the units in which the student has been enrolled have recorded entries of “W”, “I” and “NC” in at least three consecutive semesters.

Dismissal Period:
A dismissed student will be required to remain out of college one semester, but may return on probationary status after one semester’s absence.

Appeal Option:
A dismissed student may appeal to the Dean of Student Services for permission to enroll without loss of semester if the student feels that extenuating circumstances caused the dismissal. It is the student’s responsibility to detail those circumstances in writing on a petition for readmission after dismissal.

ACADEMIC RENEWAL WITHOUT COURSE REPETITION

Previous substandard work (“D” or “F”) earned at Cosumnes River College may be discounted at the student’s request, if it meets certain criteria. Courses and grades that no longer reflect the student’s current educational objective and current level of academic success may upon petition be discounted in the computation of the grade point average. The following conditions must apply:

- No more than 30 units of substandard grades may be discounted.
- A minimum of 12 units must be earned with “C” grades or better.
- A minimum of 3 semesters must have elapsed between the time the substandard grades were earned and the 12 units of “C” or better grades were earned.
- Current educational objectives must be discussed with a counselor, whose recommendation must be included on the petition.
- Under no circumstances may course work be discounted if it has been granted to fulfill degree requirements.
- All grades will be recorded on the student’s permanent record and transcripts. Specific grades that have been discounted from the grade point average will, however, be noted on the transcript.
- Once elected, the Academic Renewal cannot be reversed.
ATTENDANCE
The college assumes that students will attend every session of a class for which they are registered. If, however, attendance is irregular, students may be dropped from a particular class. It is nevertheless the responsibility of the students, and not the instructors, to process a class drop by using TES (Telephone Enrollment Services) or in person with the Admissions Office. Excessive absence is defined as exceeding ten percent (10%) of the total hours of class time. For attendance purposes, the college regards a laboratory session as the equivalent of one class meeting.

Students may appeal for reinstatement in a class from which they have been excluded because of excessive absences, by contacting their counselor.

Veterans who drop below the number of units required by the Veterans Administration for any reason during a semester, including being dropped from a class for excessive absences, will lose part of their government assistance allowances.

NO SHOW
Students who are not present at the first class meeting and are not in attendance at the beginning of the second class meeting, may be dropped by the instructor as a “No Show.”

AUDITING COURSES
Cosumnes River College does not permit auditing, which is defined as attending a course or courses, without completing the registration process.

CAMPUS TRAFFIC REGULATIONS
The college has posted both maximum speed limits and designated parking areas. It is the responsibility of all students, staff and visitors to observe and honor these traffic regulations. All violators will be cited.

CHANGE OF ADDRESS
Students must report a change of address immediately to the college Admissions Office. The college cannot be responsible for mail sent to the wrong address.

COURSE REPETITION
Generally, each course may be taken only once. There are five exceptions:

• A student may repeat, only once, a course that was taken in which a substandard grade was received. A student may not repeat a course in which he/she earned an Incomplete. Substandard grade is defined as “D”, “F”, or “NC.” The grade and credits earned in the second enrollment shall be used exclusively in determining the grade points earned for that particular course.

• The college finds that the student’s previous grade is, at least in part, the result of extenuating circumstances. Extenuating circumstances are verified cases of accidents, illness, or other circumstances beyond the student’s control. Grades awarded for courses repeated under this circumstance shall not be counted when calculating a student’s grade point average.

• The college recommends that a student repeat a course because there has been a significant lapse of time since the student previously took the course. Grades awarded for courses repeated under this circumstance shall not be counted when calculating a student’s grade point average.

• Courses designated as “repeatable” are those listed as such in the college catalog and are designed to enhance students’ skills or performances through supervised repetition.

• Students may repeat courses needed to meet a legally mandated training requirement as a condition of continued paid or volunteer employment.

UNIT OF CREDIT
College credit is measured in terms of the "unit." One unit is earned by performing three hours of work per week for one semester. Three hours may be spent entirely in the classroom, or partially in the classroom and the remainder in outside study. In recitation-lecture courses, one hour in the classroom and two hours of study preparation per week constitutes one unit. In the laboratory three hours per week with no outside study constitutes one unit.

UNIT LIMITATION
Students’ course programs usually average 15 units per semester. This indicates that students normally spend 45 hours per week in preparing for and attending classes. The college recommends that students carry no more than 18 units during a given semester. Students planning to carry more than 18 units must confer with their counselor.

STUDENT CLASSIFICATION

<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part-Time</td>
<td>A student carrying fewer than 12 units</td>
</tr>
<tr>
<td>Full-Time</td>
<td>A student carrying 12 or more units</td>
</tr>
<tr>
<td>Freshman</td>
<td>A student who has completed fewer than 30 units</td>
</tr>
<tr>
<td>Sophomore</td>
<td>A student who has completed 30 or more units</td>
</tr>
<tr>
<td>Graduate</td>
<td>A student who has been awarded the Associate degree, or a higher degree by a recognized collegiate institution</td>
</tr>
</tbody>
</table>

Note: During the summer session, a student carrying six (6) units is considered full-time.

FINAL EXAMINATIONS
The college requires final examinations in all courses. The college publishes a time schedule for final examinations early in each semester, so that students may be notified in sufficient time regarding the examination schedule.
RIGHT TO KNOW

LOS RIOS COMMUNITY COLLEGE
DISTRICT NON-DISCRIMINATION POLICY

The Los Rios Community College District, in compliance with all pertinent Titles and Sections of the Civil Rights Act of 1964, the Educational Amendments of 1972, the Rehabilitation Act of 1973, Americans with Disabilities Act, and all other applicable federal, state and local laws, does not discriminate on the basis of race, color, marital status, religion, sexual preference, national origin, sex, age over forty, handicap or Vietnam-era veteran status, physical or mental disability, nor shall any students be discriminated against for conversing in a language other than English, in any of its functions or activities, including employment, educational programs and services, admissions and financial aid.

The District further complies with those federal and state laws and the regulations of the Board of Governors of the California Community Colleges which prohibit sexual harassment.

Such non-discrimination policies extend to all of the functions and activities of the Los Rios Community College District including employment and employment selection, educational programs, services, admissions and financial aid.

Inquiries regarding this policy may be directed to the Affirmative Action Officer (Titles VI and VII), Crisco McCullough, CRC, (916) 691-7391; Claudia Hansson, Gender Equity Coordinator (Title IX), CRC, College Center (916) 691-7487; Chris Brown, Vice President for Administrative Services and Student Support (Section 504 and ADA, American Disabilities Act), CRC, College Center, (916) 691-7251; or the Los Rios Community College District, Director of Personnel Services, 1919 Spanos Court, Sacramento, CA 95825, (916) 920-7901, or to the Director of the Office of Civil Rights, U.S. Department of Health, Education and Welfare, Washington, D.C.

ACCESS TO STUDENT RECORDS

The Los Rios Board of Trustees, in order to meet the provisions of the Family Rights and Privacy Act of 1974 and the Education Code, has established policies giving students and parents of dependent students access to certain designated records. A summary of the rights and procedures for access are contained in the Students Rights and Responsibilities section of the Los Rios Community College District Policy manual. Complete copies of the Act, Education Code, and Board policies are available in the offices of Admissions and Records and the Vice President of Student Services.

District Regulation 2265 provides for the release, without student consent, of Student Directory Information, i.e. student’s name, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and most recent previous public or private school attended. In addition, federal law provides that representatives of the U.S. Department of Defense shall be provided a student’s name, address and telephone number for recruitment purposes. Students have the right to refuse the release of one or more such designated categories by submitting a written statement to the Admissions and Records Office.

STUDENT GRIEVANCE PROCEDURE

Students may file a grievance in the event of alleged breach of students rights as identified in the Student Handbook and detailed in Board policies and regulations. A grievance may be filed if the student feels discrimination has occurred based upon race, color, national origin, sex, sexual preference, age or handicap.

Steps to Filing a Grievance:

- Students must make a reasonable, good faith attempt within TEN (10) days to discuss the problem with the staff member involved or with his/her immediate supervisor. Failure to do so within the prescribed period of time will constitute a waiver of any right to pursue the matter further.

- If the complaint is not resolved within TEN (10) days by the immediate supervisor and the staff member involved, the student may then file a formal grievance, within FIVE (5) days of completing the informal procedure, and not later than 25 days from the date of the alleged wrongful act.

- The student must submit a Grievance Form to the College’s Vice President of Student Services and Student Development. The grievance must contain a specific statement of the alleged act of wrong-doing, the name of the person against whom the grievance is filed, the names of any witnesses, and the nature of the relief sought

(continued next page)
by the grievant (not to include the imposition of disciplinary action on an employee). Failure to file the completed grievance form within the above-specified time period shall constitute a waiver of any right to further proceedings.

- Within TEN (10) days of the receipt of the grievance, the college Vice President of Student Services and Student Development will determine whether the issue is grievable under the policies and regulations of the District, at which time, if the issue is grievable, a hearing will be scheduled. The Vice President of Student Services and Student Development will notify the student in writing that the grievance has been rejected and state the specific reason(s) for the rejection, or that the grievance was referred to the designated hearing officer. At this time, the person(s) against whom the grievance is filed shall be notified of the status of the grievance, and shall be given a copy of the formal grievance.

- Within TEN (10) days from appointment, the Hearing Officer will schedule a hearing on the grievance. All parties shall be notified by the Hearing Officer of the time and day of the hearing. If the designated time and day are not convenient for the parties, a mutually agreeable time may be set.

- The hearing will be conducted in accordance with the guidelines set forth in board policy.

- The Hearing Officer shall deliver a written decision within TEN (10) days of the conclusion of the hearing to all parties to the grievance, with copies to the Vice President of Student Services and Student Development, the college President and the Assistant Chancellor, Educational Services.

- Either party to the grievance may appeal the Hearing Officer's decision to the Vice President of Student Services and Student Development within FIVE (5) days. Such appeal must be submitted in writing and state specifically the grounds for appeal.

- Within TEN (10) days after receiving the appeal documents, the Vice President of Student Services and Student Development will inform all parties to the grievance and the appropriate personnel in the District Office, in writing, of the decision. The decision of the Vice President of Student Services and Student Development will be final.

For more detailed information, see Board Policies and Regulations 2412.

Any questions regarding student conduct, rights and responsibilities, due process, and grievance procedures may be directed to the Vice President of Student Services and Student Development.

**DRUG AND ALCOHOL FREE POLICY**

In accordance with the requirements of the U.S. Drug Free Workplace Act of 1988, the college is committed to maintaining a drug-free workplace; and, in accordance with the requirements of the Drug Free Schools and Community Act Amendment of 1989, a drug- and alcohol-free college environment for students and employees.

The unlawful manufacture, distribution, dispensing, possession or use of illicit drugs and alcohol is prohibited in the workplace and college premises. Violation of this policy by students will result in disciplinary sanctions up to and including expulsion, and may include the completion of an appropriate rehabilitation program.

In addition to disciplinary sanctions, violators may be prosecuted under applicable law. Students will be informed of the health risks associated with the use of illicit drugs and the abuse of alcohol, and will be advised of the availability of drug or alcohol counseling, treatment or rehabilitation programs through the Health Services Office. Call 691-7254 for more information.

**CAMPUS SECURITY ACT OF 1990**

The Campus Security Act of 1990 (Public Law 101-542) requires that all colleges and universities receiving Title IV student aid assistance to prepare and distribute an annual report which sets forth its policies on crime prevention issues and gives statistics on the number of specific crimes which occur on campus and the number of arrests on campus for liquor law violation, drug abuse violations, and weapon possessions.

In addition, the act requires colleges and universities to provide timely warnings to the campus community of certain crimes reported to campus security by local law enforcement which may be considered a threat to other students and employees.

A copy of the required documents will be available in the College Library after September 1 of each year.

**NO SMOKING POLICY**

It is the college’s policy that there be no smoking within 30 feet of any structure with the exception of the patio area near the cafeteria.

**SEXUAL ASSAULT POLICY**

Any student, faculty, or staff member who is a victim of, or contacted regarding sexual assault or a threat of sexual assault at a college facility should notify the Vice President of Administration and Student Support, or the Vice President of Instruction and Student Development at the Folsom Lake and El Dorado centers. With the consent of the victim, the vice president or center director shall initiate procedures for notifying the College Health Center, Campus Police and Dean of Student Services. The information shall be provided with sensitivity and with consideration of the personal needs of the victim.

**SEXUAL HARASSMENT**

**Sexual Harassment Policy**

It is the desire of the Los Rios Community College District Board of Trustees to provide for all students and employees an educational environment and work place free from sexual harassment. Sexual harassment in any situation is unacceptable, and is in violation of state and federal laws and regulations. Where evidence of harassment is found, appropriate corrective action shall be taken.

**Definition of Sexual Harassment**

Sexual harassment means unwelcome sexual advances, requests for sexual favors, and other verbal, visual, or physical conduct of a sexual nature, made by someone from or in the work or educational setting, under any of the following conditions:

- Submission to the conduct is explicitly or implicitly made a term or a condition of an individual’s employment, academic status or progress.

(Continued on next page)
Right to Know

- Submission to, or rejection of, the conduct by the individual is used as the basis of employment or an academic decision affecting the individual.

- The conduct has the purpose or effect of having a negative impact upon the individual's work or academic performance, or of creating an intimidating, hostile, or offensive work or educational environment.

- Submission to, or rejection of, the conduct by the individual is used as the basis for any decision affecting the individual regarding benefits and services, honors, programs, or activities available at or through the educational institution.

For the purpose of further clarification, sexual harassment includes, but is not limited to:

- Making unsolicited written, verbal, visual, or physical contact with sexual overtones. Some examples are: epithets, derogatory comments or slurs of a sexual nature; impeding or blocking movements or any physical interference with normal work; derogatory posters or cartoons.

- Continuing to express sexual interest after being informed that the interest is unwelcome. (Reciprocal attraction is not considered sexual harassment.)

- Within the work environment, engaging in explicit or implicit coercive sexual behavior which controls, influences, or affects the career, salary, and/or work environment or any other term or condition of employment; within the educational environment, engaging in explicit or implicit coercive sexual behavior which controls, influences, or affects the educational opportunities, grades, and/or learning environment of the student.

- Making reprisals, threats of reprisal, or implied threats of reprisal following a negative response to a sexual advance. For example, within the work environment, either suggesting or actually withholding support for an appointment, promotion, or change of assignment; suggesting a poor performance report will be prepared; or suggesting probation will be failed. Within the educational environment, either suggesting or actually withholding grades earned or deserved; suggesting a poor performance will be prepared; or suggesting probation will be failed; or suggesting a scholarship recommendation or college application will be denied.

- Offering favors or educational or employment benefits, such as grades or promotions, favorable performance evaluations, favorable assignments, favorable duties or shifts, recommendations, reclassifications, etc., in exchange for sexual favors.

Complaint Procedure and Impact

Any individual who believes that he/she has been sexually harassed is encouraged to follow the complaint procedures as set forth in the Los Rios Community College District Affirmative Action Regulations (R-2423). Throughout the procedures, the College President and the College/District Affirmative Action Officers will insure that confidentiality will be maintained and that due process will be followed with respect to both parties. In the case of a student it shall not affect grades, class selection, or other matters pertaining to his or her status as a student. In a situation where evidence is found that an allegation of sexual harassment is brought solely for the purpose of vexation, the appropriate disciplinary action will be taken.

Sexual harassment policy, procedural steps and forms are available from the campus Affirmative Action Officer, Cris McCullough, Dean of Careers & Technology, at Technology 101, or telephone 691-7391.

STUDENT RIGHT-TO-KNOW PROGRAM COMPLETION

In compliance with the Student Right to Know and Campus Security Act of 1990, completion and transfer rates for students attending Cosumnes River College can be found on the California Community College State Chancellor's Office Web site at http://srtk.cccco.edu/.
Programs of Study - Area of Business & Family Science

Accounting

DEGREE
A.A.—Accounting

CERTIFICATES
Accounting
Accounting, Advanced
Accounting Clerk
Accounting, Computer Applications

This CRC program provides training for entry-level employment in private industry or in government accounting. Study for self-employment as a provider of computer-based bookkeeping and/or tax services is also available. In addition, those individuals already employed in accounting can work toward career advancement by taking additional courses. Generally, employment in this specialization requires proficiency in business calculations.

Career Options
Account Clerk; Accounting Technician;
Accountant Trainee; Auditor; Bank Employee/
Examiner; Certified Public Accountant;
Cost Accountant; Insurance Employment;
Revenue Agent (FTB/IRS); Tax Preparer;
Bookkeeper for: Accounts Receivable,
Accounts Payable, General Ledger, Full-
Charge

Some career options may require more than
two years of college study.

Highlights
A traditional course of study in Accounting
Fundamentals, three levels of Financial
Reporting, Managerial Techniques, State and
Federal Income Taxation, Cost Accounting,
and Auditing
State-of-the-art software and equipment to
provide computerized accounting training
Internships, work experience with local
employers for college units, job shadowing,
guest speakers from the accounting industry,
field trips to accounting offices
A lab with tutorial assistance

DEGREE
A.A.—Accounting
CODE #1001

REQUIRED PROGRAM ............................................................. Units
Business Core:
ACC 1A  Financial Accounting ...................................................... 4
BUS 8  Business Communications .............................................. 3
BUS 15  Managing Diversity in the Workplace ............................. 3
BUS 18A  Business Law ................................................................. 3
BUS 20  Introduction to Business .................................................. 3
BUS 41  Introductory Keyboarding ................................................. 1.5
MKT 20  Principles of Marketing or
MGMT 1  Total Quality Management or
MGMT 24  Techniques of Management ........................................ 3
CIS 3  Introduction to Computer Information Science or
Three (3) units to include:
CIS 1/JOUR 1  Computer Familiarization - (1) unit and
Two (2) additional units selected from:
ECON 1A  Principles of Economics or
ECON 14/BUS 14  Concepts of Personal Finance or
ECON 55  Introduction to Economics ........................................... 3

Accounting Option:
ACC 1B  Managerial Accounting ................................................... 4
ACC 5  Accounting on the Microcomputer...................................... 2
ACC 91A  Intermediate Accounting............................................. 3
ACC 91B  Intermediate Accounting............................................. 3
ACC 92  Cost Accounting................................................................. 3
ACC 93  Auditing........................................................................... 3
BUS 10  Electronic Calculators....................................................... 2
TOTAL UNITS REQUIRED .......................................................... 46.5

Suggested Electives:  ACC 77, 98; BUS 18B, 98; CIS 12B, 13B;
Human/Career Development (any course); Management 23.

General Education Graduation Requirements - See page 18.
### CERTIFICATE
**Accounting**  
**CODE #1001**  

**REQUIRED PROGRAM**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>ACC 1A Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACC 1B Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACC 5 Accounting on the Microcomputer</td>
<td>2</td>
</tr>
<tr>
<td>ACC 92 Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 93 Auditing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 10A Business Law or BUS 18B Business Law</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED** 19

*Business 18B recommended for students intending to enter public accounting profession.

### CERTIFICATE
**Accounting, Advanced**  
**CODE #1004**

**REQUIRED PROGRAM**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 1A Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACC 1B Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACC 77 Federal and State Taxation</td>
<td>4</td>
</tr>
<tr>
<td>ACC 92 Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 93 Auditing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 10 Electronic Calculators</td>
<td>2</td>
</tr>
<tr>
<td>BUS 18A Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUS 20 Intro. to Business</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED** 26

### CERTIFICATE
**Accounting Clerk**  
**CODE #1419**

**REQUIRED PROGRAM**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 41 Introductory Keyboarding or <em>Keyboarding Certificate for 25 wpm or better</em></td>
<td>0-1.5</td>
</tr>
<tr>
<td>CIS 1 Computer Familiarization</td>
<td>1</td>
</tr>
<tr>
<td>CIS 5 Accounting on the Microcomputer</td>
<td>2</td>
</tr>
<tr>
<td>CIS 12A Electronic Spreadsheets</td>
<td>1</td>
</tr>
<tr>
<td>ACC 60 Fundamentals of College Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 70 Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUS 50 Business English</td>
<td>3</td>
</tr>
<tr>
<td>BUS 60 Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 10 Business Calculators or BUS 98 Work Experience</td>
<td>2</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED** 18-19.5

### CERTIFICATE
**Accounting, Computer Applications**  
**CODE #1005**

This curriculum is designed for those individuals who wish to become proficient in the use of computers for business accounting purposes. Students who continue their education by pursuing another accounting certificate or an Associate in Arts degree in business may do so without repeating any courses taken during the Computer Applications for Accounting program.

**REQUIRED PROGRAM**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 1A Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACC 1B Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACC 5 Accounting on the Microcomputer</td>
<td>2</td>
</tr>
<tr>
<td>ACC 70 Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>CIS 12A Electronic Spreadsheets</td>
<td>1</td>
</tr>
<tr>
<td>CIS 12B Intermediate Electronic Spreadsheets</td>
<td>1</td>
</tr>
<tr>
<td>CIS 13A Database Management</td>
<td>1</td>
</tr>
</tbody>
</table>
| BUS one (1) to three (3) units selected from:  
  CIS 1 Computer Familiarization  
  CIS 3 Introduction to Computer Information Science | 1-3   |

**TOTAL UNITS REQUIRED** 18-20

### Accounting

**1A FINANCIAL ACCOUNTING** 4 Units  
**Prerequisite:** None.  
**Advisory:** Business 60 or Mathematics 53  
**Acceptable for credit:** CSU, UC  
72 hours lecture  
This course covers accounting as the basis of an information system with emphasis on concepts and assumptions underlying data accumulation for financial reports. Emphasis is on the preparation of journals, ledgers, work sheets, financial statements, and other summary reports. The course includes units in receivables and payables, inventories, depreciation, forms of business organization, corporate securities, and financial statement analysis.  
(CAN BUS 2) (ACCT 1A & 1B = CAN BUS SEQA)

**1B MANAGERIAL ACCOUNTING** 4 Units  
**Prerequisite:** Accounting 1A  
**Acceptable for credit:** CSU, UC  
72 hours lecture  
This course is a study of the use and reporting of accounting data for managerial planning, cost control, and decision making purposes. The course includes broad coverage of concepts, classifications, and behaviors of costs. Study will include cost-volume-profit relationships, short and long-term budgeting, and contribution reporting.  
(CAN BUS 4) (ACCT 1A & 1B = CAN BUS SEQA)
5 ACCOUNTING ON THE MICROCOMPUTER 2 Units
Prerequisite: Two years of high school accounting, Accounting 60 or Accounting 1A
Acceptable for credit: CSU
18 hours lecture, 54 hours laboratory
This is a course using the computer to prepare financial accounting statements and reports used in business. Areas of study include general ledger, accounts payable, accounts receivable, inventory, payroll, and depreciation. The ability to type 20-30 WPM and to use a ten-key calculator by the touch method will be useful for completing class assignments. Students may receive two units credit for each topic (software product) offered. Consult the class schedule for specific topics.

49 SPECIAL STUDIES IN ACCOUNTING 1-3 Units
Prerequisite: None.
Acceptable for credit: CSU
(See catalog p. 21)

60 FUNDAMENTALS OF COLLEGE ACCOUNTING 3 Units
Prerequisite: None.
54 hours lecture
This accounting course focuses on basic accounting practices which emphasizes a practical application approach to the use of accounts, journals, ledgers, and financial statements. This course is recommended for students who intend to seek employment in the business office of a sole proprietorship organized for service or sales activity.

70 PAYROLL ACCOUNTING 3 Units
Prerequisite: None.
Advisory: Accounting 60 recommended.
54 hours lecture
This is a study of payroll and personnel records, procedures and regulations. The course will include a study of the various California and Federal laws pertaining to the computation of earnings and withholdings. Payroll tax payment requirements and preparation of the employer’s California and Federal payroll tax reports will be included. A comprehensive simulation project will be completed as part of the course. The project will include one quarterly payroll reporting cycle.

77 FEDERAL AND STATE TAXATION 4 Units
Prerequisite: None.
72 hours lecture
This course is a study of basic Federal and State Income Tax regulations with an emphasis on the skills necessary for the preparation of individual income tax returns. Included are filing requirements, determination of taxable income, allowable deductions, tax computation, tax credits, other taxes, payment methods, and audit procedures. The course is acceptable as elective for civil service professional accounting operations and recommended for accounting majors.

91A INTERMEDIATE ACCOUNTING 3 Units
Prerequisite: Accounting 1A.
54 hours lecture
This course provides a continuing study of the measurement and reporting of the results of operations and the financial condition of profit-directed business entities. Special emphasis will be given to the valuation of assets using the Financial Accounting Standards Board (FASB) as authority. Completion of 91A and 91B is required to complete the “advanced accounting” requirement for accounting classifications in state service. This course is not intended for transfer to a four-year college.

91B INTERMEDIATE ACCOUNTING 3 Units
Prerequisite: Accounting 91A.
54 hours lecture
This course is a continuing study of the measurement and reporting of the results of operations and the financial position of profit-directed business entities. An emphasis is placed on accounting for stockholder’s equity, long-term liabilities, retained earnings, and dividends. This course and Accounting 91A constitute the “advanced accounting” requirement for some professional-level accounting classifications in California state service. Accounting 91B is not intended for transfer to a four-year college.

92 COST ACCOUNTING 3 Units
Prerequisite: None.
Advisory: Accounting 1B
54 hours lecture
This course is an introduction to cost accounting methods, including job order, process and standard cost system. Special attention will be given to managerial uses of cost accounting. This course is not intended for transfer to a four-year college.

93 AUDITING 3 Units
Prerequisite: None.
Advisory: Accounting 1A
54 hours lecture
The procedures and practices used in the verification of financial statement balances and accounting transactions will be the focus of the course. The types of audits and audit occupations as well as the legal liabilities of the auditor will be discussed. This course is acceptable as elective units toward civil service professional accounting education requirements.

96 ACCOUNTING FOR THE SMALL BUSINESS 3 Units
Prerequisite: None.
54 hours lecture
This course is designed for small business owners. The course will enable the small business owner to design and maintain financial records, with emphasis on the financial records as a tool of management, including maintaining records for income and expenses, property, sales and payroll taxes, and assets.

98 WORK EXPERIENCE IN ACCOUNTING 1-4 Units
Prerequisite: None.
(See catalog p. 22)
Folsom Lake Center & El Dorado Center

Administration of Justice

DEGREE
A.A.—Administration of Justice
A.A.—Administration of Justice, Correctional Science

CERTIFICATE
Administration of Justice, Correctional Science

Never before has there been a greater demand for well-trained and educated professionals in the law enforcement and correctional fields.

CRC's program concentrates on training individuals for entry-level positions in a wide variety of careers in the Administration of Justice field. Graduates will be able to seek employment at either the local, state, federal or private level. Such careers include corrections, uniform patrol, investigations and criminal identification.

Career Options
Police Officer; Deputy Sheriff; Corrections Officer; Parole Officer; Probation Officer; State Police; State Dept. of Justice; Federal Dept. of Justice

Some positions, however, require a four year degree for which CRC's program is a good base for transfer.

Highlights
Opportunities to meet professionals in the field through guest lectures and field trips
Exploration of career opportunities with experienced professionals
Experience with simulated situations in criminal investigations and physical evidence

DEGREE
A.A.—Administration of Justice
CODE #1006

REQUIRED PROGRAM
AJ51 Introduction to Administration of Justice 3
AJ52 Introduction to Correctional Services 3
ENGL59 Writing for the Corrections Officer 3
AJ61 Concepts of Criminal Law 3
AJ62 Legal Aspects of Evidence 3
AJ72 Community Relations 3
AJ80 Criminal Investigation 3
AJ98 Work Experience in Administration of Justice 2-4

Plus six (6) units selected from:
AJ71, 84, 86, 87

TOTAL UNITS REQUIRED 29-31

Suggested Electives: AJ53, 64, 88; Psychology 3, 7; Sociology 5; CIS 11A & 11B.

General Education Graduation Requirements - See page 18.

DEGREE
A.A.—Administration of Justice, Correctional Science
CODE #1304

REQUIRED PROGRAM
AJ52 Introduction to Correctional Services 3
ENGL59 Writing for the Corrections Officer 3
AJ53 Control & Supervision in Corrections 3
AJ61 Concepts of Criminal Law 3
AJ64 Legal Aspects of Corrections 3
AJ88 Correctional Counseling & Interviewing 3
AJ98 Work Experience in Administration of Justice 2-4

Completion of a College Affiliated Law Enforcement Academy
OR
AJ51 Introduction to Administration of Justice (3)
AJ87 Probation and Parole (3)
AJ72 Community Relations (3)
AJ80 Criminal Investigation (3)

Above selections total 12

TOTAL UNITS REQUIRED 32-34

Suggested Electives:
AJ62, 71, 84, 86; Psychology 3, 7; Sociology 5; CIS 11A & 11B.

General Education Graduation Requirements - See page 18.
CERTIFICATE
Administration of Justice,
Correctional Science
CODE #1304

REQUIRED PROGRAM ........................................... Units
AJ52 Introduction to Correctional Services ....................... 3
ENGL59 Writing for the Corrections Officer ..................... 3
AJ98 Work Experience in Administration of Justice ............ 2-4

Plus six (6) units selected from:
AJ53, 61, 64, 88 ...................................................... 6

Completion of a College Affiliated Law Enforcement Academy OR
AJ51 Introduction to Administration of Justice (3)
AJ80 Criminal Investigation (3)
AJ82 Parole Procedures (3)
AJ87 Probation and Parole (3)
Above Selections Total ........................................... 12

TOTAL UNITS REQUIRED ........................................ 26-28

NOTE: In the certificate the two courses among AJ52, 53, 64, and 88 not used to fulfill the core, may be used to fulfill a portion of the units required to substitute for the college affiliated law enforcement academy.

Administration of Justice

51 INTRODUCTION TO ADMINISTRATION OF JUSTICE 3 Units
Prerequisite: None.
Advisory: Eligibility for English 57 and 72.
Acceptable for credit: CSU, UC
54 hours lecture
The history and philosophy of justice as it evolved in the study of American and English systems. An in-depth study of the American system and the various sub-systems; roles and role expectations of criminal justice agents in their interrelationships in society; concepts of crime causation, punishment and community relations; ethics, education and training for professionalism in the justice system.

52 INTRODUCTION TO CORRECTIONAL SERVICES 3 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
Survey of the Criminal Justice system with emphasis on the contemporary correctional process. Description and evaluation of the impact of deviate behavior, police involvement, jails, the judicial system, correctional institutions, probation, parole and community resources. Introduction to career opportunities in corrections.

53 CONTROL & SUPERVISION IN CORRECTIONS 3 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
The philosophy and theory of supervision is a major component in the core knowledge of a professional corrections field. This course is designed as a core course in an associate degree in Correctional Science and is one of the courses certifiable by the Commission on Correctional Peace Officers Standards and Training as a part of the education of corrections professionals.

54 GANGS AND CORRECTIONS 3 Units
Prerequisite: None.
54 hours lecture
This course is designed to provide the student with a specialized field of knowledge as it relates to the correctional impact of gangs. Following a development of the history of gangs and the issues associated with the number of gangs, the course will focus on the emergence of prison gangs following a series of changes within correctional systems. Included in the course will be review of the types of gangs and the criminal activities associated with these gangs. Special emphasis is placed on the gang and correctional issues including identification, intake, classification, communication and trends. Psychological and sociological dynamics are explored. Institutional management as well as future trends will be examined.

55 SUPERVISION IN CORRECTIONS 3 Units
Prerequisite: Administration of Justice 52.
54 hours lecture
After introducing the theory and practices of supervision as it is practiced in the business and public sector, this course will focus on the skills and knowledge of supervision as applied in corrections. Examples, scenarios and case studies from both juvenile and adult corrections and parole will be utilized. Students in this course should have some experience or education in the corrections field. The intent of this course is to provide the student with a basic understanding of the subject which can be the foundation for further agency specific training.

56 LEADERSHIP DEVELOPMENT IN CORRECTIONS 3 Units
Prerequisite: Administration of Justice 52.
54 hours lecture
This course is an introduction to leadership theory and practice. Although the primary setting for leadership examples are the correctional environment, they are related to the more general leadership styles and theories of government and business. Emphasis is given to leadership skills and experiences which will be of benefit to an individual with background (either educational or experiential) in correctional at the local, state or federal level.
61 CONCEPTS OF CRIMINAL LAW 3 Units
Prerequisite: None.
Advisory: Administration of Justice 51 or 52
Acceptable for credit: CSU, UC
54 hours lecture
Philosophy and structure of criminal law; emphasis given to specific crimes, related laws and codes, annotations to codes and case studies. Students may wish to challenge the prerequisite on the basis of equivalent experience. (CAN AJ 4)

62 LEGAL ASPECTS OF EVIDENCE 3 Units
Prerequisite: None.
Advisory: Administration of Justice 51 or 52
54 hours lecture
Search and seizure concepts, the exclusionary rule, the kinds and degrees of evidence, considerations governing the admissibility of evidence in courts, rules of evidence, case studies. Students may wish to challenge the prerequisite on the basis of equivalent experience.

64 LEGAL ASPECTS OF CORRECTIONS 3 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
This course provides students with an awareness of the historical framework, concepts and precedents that guide correctional practice. Course material will broaden the individuals perspective of the corrections environment, the civil right of prisoners and responsibilities and liabilities of corrections officials.

71 CRIMINAL PROCEDURES 3 Units
Prerequisite: None.
Advisory: Eligibility for English 57 and 72. Admin of Justice 51 or Admin of Justice 52 recommended.
Acceptable for credit: CSU
54 hours lecture
This course will study the justice system. Topics will include bail extradition and rendition; order of trial, motions, writs and appeals; limitations of prosecuting; rights of defendant; judgment and sentence.

72 COMMUNITY RELATIONS 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
Survey of the community relations problems currently facing the nation. Includes local, state and federal programs; methods of practical application of expounded ideals; directions for future innovation and change. Concepts of human relations applied to administration of justice problems.

80 CRIMINAL INVESTIGATION 3 Units
Prerequisite: None.
Advisory: Administration of Justice 51 or 52
Acceptable for credit: CSU
54 hours lecture
Fundamentals involved in the investigation of crimes; interrogation of victims, witnesses, and suspects; police organization and procedure in the investigation of crimes; crime scene searches; surveillance; use of scientific aids. Students may wish to challenge the prerequisite on the basis of equivalent experience.

81 EVIDENCE AND THE LABORATORY 3 Units
Prerequisites: Administration of Justice 51 and 52
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
Introduction to the field of criminalistics; the role of the laboratory in the administration of justice system; degrees and limits of scientific conclusions; introduction to technical equipment; examination of characteristics; properties and means of analyzing categories of physical evidence. Students may wish to challenge the prerequisite on the basis of equivalent experience.

82 PATROL PROCEDURES 3 Units
Prerequisites: Administration of Justice 51 and 52
Acceptable for credit: CSU
54 hours lecture
Organization of the patrol division; types of patrol; patrol duties; tactics and methods. Role of the patrol officer in community relations; crime prevention; police professionalization and minority group problems. Students may wish to challenge the prerequisite on the basis of equivalent experience.

83 TRAFFIC PROBLEMS 3 Units
Prerequisites: Administration of Justice 51 and 52
Acceptable for credit: CSU
54 hours lecture
Traffic unit organization; the highway safety program; police traffic supervision; traffic direction and law enforcement. Fundamentals of traffic accident investigation; provisions of the vehicle code; police traffic problems. Students may wish to challenge the prerequisite on the basis of equivalent experience.

84 ILLEGAL DRUGS - IDENTIFICATION AND INVESTIGATION 3 Units
Prerequisite: None
54 hours lecture
The study of current drugs of abuse will include identification, street terms, prices, methods of use, history, and recognizing persons under the influence. The course also examines current law and law enforcement trends including informants, search and seizure, courtroom testimony, and preparation of warrants.
86 JUVENILE DELINQUENCY 3 Units
Prerequisites: Administration of Justice 51 and 52
Acceptable for credit: CSU
54 hours lecture
Organization, functions and jurisdiction of juvenile agencies; the
processing and detention of juveniles; juvenile case disposition;
juvenile statutes and court procedures. Students may wish to
challenge the prerequisite on the basis of equivalent experience.

87 PROBATION AND PAROLE 3 Units
Prerequisites: Administration of Justice 51 and 52
Acceptable for credit: CSU
54 hours lecture
Description of probation and parole as a segment of the
criminal justice system. A comparison of organization and
objectives as practiced in different jurisdictions. Provides an
overview of historical development and theory. A review of
goals in treatment of adult and juvenile offenders at municip-
ial, state and federal levels. Students may wish to challenge
the prerequisite on the basis of equivalent experience.

88 CORRECTIONAL COUNSELING AND INTERVIEWING 3 Units
Prerequisite: Administration of Justice 51 and 52.
Acceptable for credit: CSU
54 hours lecture
This course is an overview of the techniques in counseling
and interviewing available to practitioners in corrections.
The student will learn the use of appropriate techniques and
theories in confidence building, which may be used by the
correctional employees in client interviews and counseling.
This is a basic course for students planning to enter or
already employed within the correctional science field.

89 CORRECTIONAL STAFF AND CLIENT RELATIONSHIPS 3 Units
Prerequisites: Administration of Justice 51 and 52
Acceptable for credit: CSU
54 hours lecture
Study of staff attitudes and interaction with clients, family and
friends and other agencies in a professional setting. The
importance of understanding the dynamics of undesirable
behavior; the techniques of correctional employees influenc-
ing conformity and desirable behavior in the controlled
setting of institutions and in probation and parole situations.
Students may wish to challenge the prerequisite on the basis
of equivalent experience.

91 CONTEMPORARY JUSTICE PROBLEMS 1-3 Units
Prerequisite: None.
Acceptable for credit: CSU
18-54 hours lecture
Designed to deal with current problems or specific topics
concerning the administration of justice. The particular subject
to be covered each semester will be determined by the Adminis-
tration of Justice staff. May be taken two times for credit.

98 WORK EXPERIENCE IN ADMINISTRATION OF JUSTICE 1-4 Units
(See page 22).
Acceptable for credit: CSU

99 SPECIAL STUDIES IN ADMINISTRATION OF JUSTICE 1-3 Units
(See page 21)
Area of Communication, Visual & Performing Arts

Advertising/Public Relations

DEGREE A.A.—Communications Media, Advertising/Public Relations

CERTIFICATE Desktop Publishing (see Computer Information Science - page 97)

This CRC program is part of CRC’s offerings in Communications Media and is designed for students interested in careers in public relations and advertising. This program trains students in public relations and advertising theory and exposes them to production techniques for radio, television and the print media.

Career Options
- Public Information Officer; Community Relations Specialist; Media Consultant;
- Public Relations Firm Representative

Some career options may require more than two years of college study.

Highlights
- Instruction and practice in desktop publishing and graphics applications in the department’s Macintosh laboratory or PC computer lab
- Opportunities for practical experience selling and designing ads for campus publications
- Introductory production experience in radio and television advertising, writing and production

DEGREE
A.A.—Communications Media, Advertising/Public Relations

CODE #1056

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1/JOUR 1</td>
<td>Computer Familiarization</td>
<td>1</td>
</tr>
<tr>
<td>CMED 5</td>
<td>Mass Media and Society</td>
<td>3</td>
</tr>
<tr>
<td>CMED 54</td>
<td>Basic Film/Video Camera Techniques</td>
<td>3</td>
</tr>
<tr>
<td>MKT 26/CMED 60</td>
<td>Advertising</td>
<td>3</td>
</tr>
<tr>
<td>CMED 63</td>
<td>Broadcast Writing and Announcing</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 20A</td>
<td>Newswriting and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 54</td>
<td>Public Relations Media Techniques</td>
<td>3</td>
</tr>
<tr>
<td>MKT 22</td>
<td>Selling Professionally</td>
<td>3</td>
</tr>
<tr>
<td>SPEE 13</td>
<td>Organizational Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus six (6) units selected from Communication Media 56,62, 80, 98; Journalism 35A, 40; Photography 1, 40, 42, 43, 45; Speech 1, 8

TOTAL UNITS REQUIRED 31

CERTIFICATE
Desktop Publishing
(see Computer Information Science - page 97)

Suggested Electives:
- Accounting 60; Business 42, 43; Communication Media 64, 66, 73;
- Journalism 30; Psychology 7; Speech 2, 12

General Education Graduation Requirements - See page 18.
Area of Careers and Technology

**Agriculture Business**

**DEGREE**
A.S.—Agriculture Business - Transfer

**CERTIFICATE**
Agriculture Business

Agriculture is a vital component of our local, state, and national economies and offers many exciting employment opportunities. In addition to the production of a wide range of valuable agricultural commodities, the Sacramento region is home to numerous multi-national agricultural corporations and state-wide governmental agencies. It is also a center for international agricultural trade and commerce.

The agriculture business program is designed to prepare students for transfer to a four-year college/university in agriculture business, or immediate employment in an entry-level ag business related career. Future employment options in agriculture include management and supervision, finance, insurance, government, marketing, distribution, international trade, and sales.

Career Options
Management; Supervision; Finance; Insurance; Government; Marketing; Distribution; International Trade; Sales and Service

Some positions, however, require a four-year degree for which CRC's program is a good base for transfer.

**Highlights**
As the only community college agriculture program in the Sacramento region, the CRC Ag Business program provides an excellent opportunity for individuals who wish to pursue a career in agriculture, receive an Agriculture Business Associate of Science degree, or transfer to CSU or UC.

The faculty in this program works closely with the five California agricultural degree offering universities to provide a quality transfer program for students interested in agriculture business, management and economics.

DEGREE
A.S.—Agriculture Business - Transfer

**CODE #1014**

This program is designed to prepare students to transfer to UC or CSU majoring in Agriculture Business while also allowing the student to select courses which fit his/her individual needs and desires.

**REQUIRED PROGRAM**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG BUS 1</td>
<td>Introduction to Agriculture Business</td>
<td>3</td>
</tr>
<tr>
<td>AG BUS 2</td>
<td>Agriculture Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>AG BUS 3</td>
<td>Agriculture Accounting</td>
<td>3</td>
</tr>
<tr>
<td>AG BUS 4</td>
<td>Agriculture Economics</td>
<td>3</td>
</tr>
<tr>
<td>PLT SCI 2   / HORT 2</td>
<td>Soils and Plant Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>AN SCI 1</td>
<td>Introduction to Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>PLT SCI 1</td>
<td>Introduction to Plant Science</td>
<td>3</td>
</tr>
<tr>
<td>ACC 1A</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 18A</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1A</td>
<td>Principles of Economics</td>
<td>3</td>
</tr>
<tr>
<td>STAT 1</td>
<td>Introduction to Probability and Statistics</td>
<td>4</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED** 35

General Education Graduation Requirements - See page 18.

The Sacramento region is fortunate to have some of the best high school agriculture programs in California. The faculty in the CRC Ag Business program works closely with these feeder schools to articulate coursework and facilitate the successful transition of agriculture students from high school to the university.

Internships in Ag Business are available for students interested in work experience opportunities.
CERTIFICATE
Agriculture Business
CODE #1014

This program is designed to prepare students for entry level employment in agriculture business.

REQUIRED PROGRAM ............................................................. Units
AG BUS 1 Introduction to Agriculture Business ............................. 3
AG BUS 2 Agriculture Computer Applications .............................. 3
AG BUS 3 Agriculture Accounting ............................................. 3
AG BUS 4 Agriculture Economics ........................................... 3
PLT SCI 2 / HORT 2 Soils and Plant Nutrition ............................. 3
AN SCI 1 Introduction to Animal Science ................................ .... 3
PLT SCI 1 Introduction to Plant Science ................................ ....... 3
ACC 1A Financial Accounting ................................................... 4
BUS 18A Business Law ............................................................... 3
ECON 1A Principles of Economics ............................................. 3
SPEE 1 Speech Communication ............................................... 3
TOTAL UNITS REQUIRED .......................................................... 34

Agriculture Business

1 INTRODUCTION TO AGRICULTURE BUSINESS 3 Units
(Formerly Agricultural Business 51, Introduction to Agriculture and Business)
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
This course provides a survey to the business and economics of the agriculture industry; and, an introduction to the economic aspects of agriculture including the agricultural producer, consumer and food system. The management principles encountered in the day-to-day operation of an agricultural enterprise are stressed as they relate to the decision making process.

2 AGRICULTURE COMPUTER APPLICATIONS 3 Units
(Formerly Agricultural Business 52, Agriculture Data Management)
Prerequisite: None
Advisory: CIS 1
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course introduces computer use in the workplace with emphasis on agribusiness situations. Computer applications including wordprocessing, spreadsheets, databases, and presentation managers will be covered. Also included will be accessing information through the Internet and World Wide Web, telecommunications, an introduction to web page design and other software appropriate to agribusiness.

3 AGRICULTURE ACCOUNTING 3 Units
(Formerly Agricultural Business 62, Agricultural Records)
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
This course introduces the principles of agriculture accounting systems and types of records, their use and how to compute and use measures of earnings and cost of production to improve agribusiness efficiency. Also included are farm income tax, Social Security, and employee payroll records.

4 AGRICULTURE ECONOMICS 3 Units
Prerequisite: None
Acceptable for credit: CSU
54 hours lecture
This course introduces the analysis of economic principles of resource allocation, production, cost analysis, and market price equilibrium with primary application to the agricultural sector; supply and demand in commodity pricing under perfect and imperfect competition; and agricultural credit, marketing and policy issues.

98 WORK EXPERIENCE 1-4 Units
IN AGRICULTURE (see page 22)
Acceptable for credit: CSU.
Area of Careers & Technology

Allied Health

This CRC program offers core courses designed for students enrolled in the Health Information Technology or Medical Assisting programs.

Career Options
See Career Options in Health Information Technology and Medical Assisting

Some career options may require more than two years of college study.

Highlights
Included in two degree programs and a variety of career certificates in health care

Courses taught by certified health care professionals

Allied Health

49 SPECIAL STUDIES IN ALLIED HEALTH 1 - 3 Units
(See page 21)

54 MEDICAL LANGUAGE FOR HEALTH-CARE PROVIDERS 3 Units
Prerequisite: None.
54 hours lecture
This course is an orientation to medical language: basic structure of medical terms and their components—prefixes, suffixes, roots, and combining forms—with emphasis on analysis, meaning, spelling, and pronunciation. The course builds a medical vocabulary applicable to the specialties of medicine, the systems of the body, names of major diseases, and terms used in physical examination, diagnosis, and treatment.

63 HUMAN DISEASE 3 Units
Pre or Corequisite: Allied Health 54; and an Anatomy & Physiology course sequence selected from either Biology 25/26 or Biology 50/51.
54 hours lecture
This course is a study of pathological processes imparting basic knowledge to paramedical personnel. The student will study the basic concepts, terminology, etiology and characteristics of pathological processes. Diseases are classified according to both causative agent and the body system to which they relate.

64 BASIC ICD CODING 2 Units
Prerequisite: Allied Health 63
27 hours lecture, 27 hours laboratory
This introductory course covers the basic principles of coding diseases and procedures using the INTERNATIONAL CLASSIFICATION OF DISEASES, Current Edition, Clinical Modification and the coding handbook for entry-level coders. Only the current ICD edition will be utilized in this course. The impact of coding for reimbursement will be discussed.

68 MEDICAL TRANSCRIPTION 1 - 6 Units
Prerequisite: Allied Health 54 with a grade of “C” or better; Business 41 or verified test at 30 wpm; and Business 50 with a grade of "C" or better.
12 hours lecture and 18 hours laboratory equal one unit of credit
This course emphasizes transcription of various medical documents into mailable form from prerecorded, authentic physician-dictated reports organized by body systems or medical specialties. This course emphasizes development of accuracy, speed, and medical knowledge for transcription of letters, chart notes, history and physical examination reports, consultations, emergency room reports, operative reports, discharge summaries, laboratory reports, radiology reports and pathology reports. In addition, the following are covered: reference materials and other resources, editing and proofreading techniques, and grammar and punctuation. This course acquaints the student with specialized terminology and provides realistic materials and voices for additional proficiency.

70 ALLIED HEALTH PRACTICUM 3 Units
(formerly Medical Assisting 70, Medical Assisting Practicum)
Prerequisite:
Medical Assisting Majors (Code #1184, #1185, #1186): Completion of all Allied Health, Health Education 14 and Medical Assisting courses required.
Medical Transcription Majors (Code #1188): Completion of all required certificate courses.
162 hours laboratory
This course consists of supervised experience in a health care setting performing the tasks and responsibilities as learned in the prerequisite classes for students completing requirements for the degree or certificate in Medical Assisting or the certificate in Medical Transcription.
Area of Careers and Technology

**Animal Science**

This CRC program offers courses designed for students in the Agriculture Business and Veterinary Technology programs.

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**Career Options**

See Career Options in Agriculture Business and Veterinary Technology.

**Highlights**

Provides an introduction to the livestock industry.

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**Animal Science**

1. **INTRODUCTION TO ANIMAL SCIENCE**  
   3 Units  
   (formerly Animal Science 51, Introduction to Animal Science)

Prerequisite: None.

54 hours lecture

This course provides a survey of the livestock industry, including the supply of animal products and their uses. A special emphasis is placed on the origin, characteristics, adaptation and contributions of farm animals to the agriculture industry. Students analyze the economic trends and career opportunities in animal agriculture.
Area of Humanities & Social Science

Anthropology

This CRC program offers basic lower division courses in Anthropology. Anthropology serves as an excellent background to many other behavioral sciences. It also assists students in understanding people and the world around them.

Career Options
- Anthropologist; Instructor; Museum Curator;
- Population Analyst; Urban Planner;
- Transcultural Nursing; Health Researcher;
- Environmental Impact Analyst; Forensic Science

Some career options may require more than two years of college study.

Highlights
- A friendly faculty with many cross-cultural experiences
- An anthropology lab experience

Anthropology

1 PHYSICAL ANTHROPOLOGY 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This introductory course analyzes the human place in nature. The class focuses on how humans evolved and the unique role of culture in our evolution and how genetics and reproduction shape our lives. The course also covers the classification and distribution of living and extinct human populations, how we determine the geological age of our ancestors, and our relationship to non-human primates such as apes and monkeys.
(CAN ANTH 2)

2 CULTURAL ANTHROPOLOGY 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course is an introduction to the varieties of customs and forms of social life of human beings, in both western and non-western peoples, with the aim of understanding the structure and functioning of societies. Also analyzed are multicultural customs and their usefulness in the societies in which they occur and how culture is flexible and adaptive in a variety of settings.
(CAN ANTH 4)

11 PHYSICAL ANTHROPOLOGY LABORATORY 1 Unit
Prerequisite: None.
(Recommended: Concurrent or previous enrollment in Physical Anthropology 1 or other natural science course.)
Acceptable for credit: CSU, UC
54 hours laboratory
This is an introductory laboratory course dealing with human evolution, human, ape and monkey bone identification (osteology). Identification and measurement of skeletons, determining age and sex from bones, examination of human fossils, forensics, monkey and ape behavior as well as human development will be covered.

12 MAGIC, WITCHCRAFT AND RELIGION 3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
54 hours lecture
This is a cross-cultural study of the forms and functions of supernatural beliefs and associated rituals in various societies of Africa, Asia, aboriginal Australia, Oceania, South America, native North America and elsewhere. The emphasis of the course is on understanding beliefs and rituals within their social contexts, and on broad comparisons to derive insight into the general functions of beliefs and rituals in human life. A field trip may be included in the course activities.

49 SPECIAL STUDIES IN ANTHROPOLOGY 1-3 Units
(See page 21)
Acceptable for credit: CSU, UC - See Counselor
Area of Careers and Technology

Architecture

DEGREE A.S.—Environmental Design, Architecture
CERTIFICATE Architectural Technology

This CRC program offers students in the A degree program option job-related experience in architectural drafting, construction techniques, design, rendering, and energy systems as well as opportunities to develop skills necessary for employment in building design offices. This option is articulated with California State Polytechnic University at San Luis Obispo and the University of California at Berkeley.

Career Options
Architecture; Environmental Design; Drafting; Inspection; Planning; Construction

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Highlights
Participation in architecturally-related events such as the Design Competition at Cal Poly San Luis Obispo
Field trips to a variety of architectural sites for study and appreciation
Special studies in environmental sustainability and energy conscious design.
Participation in the Leading Edge Energy Design Competition

TRANSFER

The Architectural Transfer Program attempts to satisfy the academic background and skills necessary for a student to transfer with an advanced standing to an accredited four- or five-year program. Because programs vary considerably, a student should consult a counselor.

The course work may include the required transfer general education courses and the core courses listed below:

Architecture 1, 3, 5, 6, 10, 12, 16, 24, 30, 40
Construction Management Technology 51
Drafting 66
Mathematics 9A, 9B
Physics 4A, 4C

A student needs to acknowledge that selection for admission to accredited Schools of Architecture is highly competitive. It is recommended that students keep a portfolio of all architectural coursework completed at CRC to present for evaluation by university program advisors. Some universities require portfolios prior to granting transfer credit or gaining admission.

DEGREE

A.S.—Environmental Design, Architecture
CODE #1109

REQUIRED PROGRAM .................................................. Units
ARCH 1 Introduction to Design Professions .................. 2
ARCH 3 Architectural Design and Communication I .............. 3.5
ARCH 5 Design Fundamentals ........................................... 3
ARCH 6 Architectural Design and Communication II .......... 3.5
ARCH 10 Architectural Design and Communication III .......... 3.5
ARCH 12 Design Awareness .............................................. 3
ARCH 16 Architectural Working Drawings .................... 4
ARCH 24 Advanced Design in Three Dimensions ............ 3
ARCH 30 Environmental Control Systems .................... 3
ARCH 40 History of Architecture .................................. 3
CMT 51 Materials of Construction .................................. 3
DRAFT 66 Intro. to Computer-Aided Design Drafting .......... 2
TOTAL UNITS REQUIRED ................................................ 36.5

Suggested Electives:
Architecture 3A, 6A, 10A, 32, 48 (Work Experience in Architecture); Construction Management Technology 52, 56, 58; Building Inspection Technology 57; Drafting 67; Interior Design 20, 42, 43

General Education Graduation Requirements -See page 18.
CERTIFICATE
Architectural Technology
CODE #1116

REQUIRED PROGRAM ............................................................. Units
ARCH 3 Architectural Design and Communication I ............. 3.5
ARCH 5 Design Fundamentals ................................ 3
ARCH 6 Architectural Design and Communication II .......... 3.5
ARCH 10 Architectural Design and Communication III ........... 3.5
ARCH 12 Design Awareness ................................................. 3
ARCH 16 Architectural Working Drawings ....................... 4
ARCH 24 Advanced Design in Three Dimensions .......... 3
ARCH 40 History of Architecture .................................... 3
DRAFT 66 Introductory Computer-Aided Design Drafting .... 2
CMT 51 Materials of Construction ................................ 3
TOTAL UNITS REQUIRED ......................................................... 31.5

Architecture

1 INTRODUCTION TO DESIGN PROFESSIONS 2 Units
Prerequisite: None. (Required of all beginning architectural students)
Acceptable for credit: CSU, UC
36 hours lecture
Comprehensive study of the design professions and occupations. Each student will evaluate his/her interest and potential of success in the areas of his/her choice.

3 ARCHITECTURAL DESIGN AND COMMUNICATION I 3.5 Units
Prerequisite: None. (Required of all beginning architectural students.)
Acceptable for credit: CSU, UC
54 hours lecture, 27 hours laboratory
This course includes the principles, concepts, methods and skills pertaining to the freehand and drafted construction of drawings employing orthographic, axonometric, oblique, and linear perspective drawing systems to represent ideas, objects and environments. The principles and concepts of two and three-dimensional visual and architectural design are included.

3A ARCHITECTURAL DIGITAL DESIGN AND COMMUNICATION I 2 Units
Prerequisite: None
Corequisite: Architecture 3
Acceptable for credit: CSU
18 hours lecture, 54 hours laboratory
This is a studio course to explore principles, concepts, methods and skills pertaining to the digital construction of drawings employing orthographic, axonometric, oblique, and linear perspective drawing systems to represent ideas, objects and environments.

5 DESIGN FUNDAMENTALS 3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
45 hours lecture, 27 hours laboratory.
Design fundamentals; study of creative problem solving techniques, two-dimensional design and graphic communication skills.

6 ARCHITECTURAL DESIGN AND COMMUNICATION II 3.5 Units
Prerequisite: Architecture 3
Acceptable for credit: CSU, UC
54 hours lecture, 27 hours laboratory
This course is a continuation and development of the content and issues introduced in Architecture 3 plus the principles, concepts, methods and skills pertaining to the freehand and drafted construction of shadows, physical model building, entourage and color theory.

6A ARCHITECTURAL DIGITAL DESIGN AND COMMUNICATION II 2 Units
Prerequisite: None
Corequisite: Architecture 6
Acceptable for credit: CSU
18 hours lecture, 54 hours laboratory
This course is a continuation and development of the content and issues introduced in Architecture 3A, plus the principles, concepts, methods and skills pertaining to the digital construction of shadows, digital and physical model building, entourage and color theory.

7 INTRODUCTION TO LANDSCAPE DESIGN 3 Units
Prerequisite: None
Advisory: Horticulture 1, 51; Drafting 51
Acceptable for credit: CSU
54 hours lecture
Introduction to the principles of residential landscape design including site analysis, plant materials, lighting, construction materials and basic principles of design.

10 ARCHITECTURAL DESIGN AND COMMUNICATION III 3.5 Units
Prerequisite: None
Advisory: Architecture 3 and 6
Acceptable for credit: CSU
54 hours lecture, 27 hours laboratory
This course is a continuation and extension of the content and issues introduced in Architecture 3 and Architecture 6, plus the principles, concepts, methods and skills pertaining to the freehand and drafted visualization and communication of quantitative and qualitative information to support analysis and conceptualization.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Advisory</th>
<th>Acceptable for credit</th>
<th>Hours Lecture</th>
<th>Hours Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>10A</td>
<td>ARCHITECTURAL DIGITAL DESIGN AND COMMUNICATION III</td>
<td>2</td>
<td>None</td>
<td>Architecture 10</td>
<td>CSU</td>
<td>18</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>This course is a continuation and extension of the content and issues introduced in Architecture 3A and Architecture 6A, plus the principles, concepts, methods and skills pertaining to the digital visualization and communication of quantitative and qualitative information to support analysis and conceptualization.</td>
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<tr>
<td>12</td>
<td>DESIGN AWARENESS</td>
<td>3</td>
<td>None</td>
<td>Architecture 3 and 5</td>
<td>CSU, UC</td>
<td>54</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Design problems in three dimensions. Study of space, form, structure, color, materials, and their impact on our visual environment.</td>
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<tr>
<td>16</td>
<td>ARCHITECTURAL WORKING DRAWINGS</td>
<td>4</td>
<td>None</td>
<td>Architecture 6 or Drafting 51</td>
<td>CSU</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Introduction to residential design and construction documents. Students will design a residence and produce a complete set of architectural working drawings.</td>
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<tr>
<td>24</td>
<td>ADVANCED DESIGN IN THREE DIMENSIONS</td>
<td>3</td>
<td>None</td>
<td>Architecture 12</td>
<td>CSU</td>
<td>54</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Problems in three dimensional design. Beginning studies in space, form, function, and other criteria. Continuation of Architecture 12 with an introduction to functional and environmental issues.</td>
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<tr>
<td>30</td>
<td>ENVIRONMENTAL CONTROL SYSTEMS</td>
<td>3</td>
<td>None</td>
<td>Drafting 51</td>
<td>CSU</td>
<td>54</td>
<td></td>
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<tr>
<td></td>
<td>A survey of a variety of building types with an emphasis on the control of heat and light, including discussion of basic heat and light physics. Additional topics will include building orientation for natural and mechanical heat dissipation and maximum lighting effectiveness. Codes and energy regulations will be studied and analyzed.</td>
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</tr>
<tr>
<td>32</td>
<td>ELEMENTARY STRUCTURES</td>
<td>3</td>
<td>None</td>
<td>Physics 4A, Mathematics 9B</td>
<td>CSU</td>
<td>54</td>
<td></td>
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<tr>
<td></td>
<td>Elementary structures, study of forces on building structures; static equilibrium and stability of structural systems; shear and bending moment diagrams.</td>
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</tr>
<tr>
<td>38</td>
<td>URBAN PLANNING</td>
<td>3</td>
<td>None</td>
<td>Eligibility for English 57</td>
<td>CSU, UC</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Design thinking for cities. Transportation, protection, layout, housing, human needs, design demands or urban growth. Value of the urban planner to mankind's survival.</td>
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<tr>
<td>40</td>
<td>HISTORY OF ARCHITECTURE</td>
<td>3</td>
<td>None</td>
<td>Architecture 3, 5 and 6</td>
<td>CSU</td>
<td>36</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Architecture design theories and practices of the late 19th and 20th century to the present including the Beaux Arts, Art Nouveau, Expressionism, De Stijl international style, Fascist Ideologies, Regionism, Post World War II Amalgamations of Twentieth Century idioms and recent reactions to contemporary standardization.</td>
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</tr>
<tr>
<td>41</td>
<td>SITE AND TERRAIN ANALYSIS</td>
<td>2</td>
<td>None</td>
<td>Architecture 3, 5 and 6</td>
<td>CSU</td>
<td>36</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Introduction to site analysis. Data collection and interpretation; evaluation of land and terrain through maps, soil surveys, hydrologic studies and models.</td>
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<tr>
<td>42</td>
<td>MECHANICS OF STRUCTURAL MEMBERS</td>
<td>3</td>
<td>None</td>
<td>Architecture 32</td>
<td>CSU</td>
<td>54</td>
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<tr>
<td></td>
<td>Study of stress strain and material properties; stresses and deformations in structural members due to axial force, torsion and moment.</td>
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<tr>
<td>48</td>
<td>WORK EXPERIENCE IN ARCHITECTURE</td>
<td>1-4</td>
<td>None</td>
<td>Eligibility for English 57</td>
<td>CSU - See Counselor</td>
<td>36</td>
<td>18</td>
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<td>(See page 22)</td>
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<tr>
<td>49</td>
<td>SPECIAL STUDIES IN ARCHITECTURE</td>
<td>1-3</td>
<td>None</td>
<td>None</td>
<td>CSU</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>(See page 21)</td>
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</tbody>
</table>
Area of Communication, Visual & Performing Arts

Art

DEGREE
A.A.—Art, Studio Art
A.A.—Art, Design
A.A.—Art, Art History

CRC's art curriculum offers introductory and intermediate level courses in painting, watercolor, computer art, drawing, sculpture, ceramics, printmaking and design, as well as courses in art appreciation and art history. Through the program's art theory and art practice classes, students develop an awareness and understanding of the materials, tools, rationale and significance of art in society. The art curriculum's critical thinking and technical skills components encourage students to utilize independent thought processes and problem solving. This program provides for students transfer and employment opportunities as well as personal enrichment. The art faculty is composed of professional artists with diverse specializations encompassing the spectrum of the classes offered.

Career Options
Painter; Sculptor; Ceramist; Art Instructor; Illustrator; Printmaker; Computer Publishing Specialist; Commercial Designer; Gallery Director; Graphic Artist; Computer Artist

Some career options may require more than two years of college study.

Highlights
Art faculty who have exhibited regionally, nationally and internationally
Opportunities to explore artistic expression in two- and three-dimensional media using a wide variety of materials and techniques
Scheduled guided trips to major museums
Guest lectures and demonstrations
New state-of-the-art facility

DEGREE
A.A.—Art, Studio Art
CODE #1267

REQUIRED PROGRAM
Art 11A  Elementary Drawing and Composition ........................................ 3
Art 12A  Figure Drawing and Composition .................................................. 3
Art 14  Design: Fundamentals ................................................................. 3
Art 16  Three-Dimensional Design ........................................................... 3
Arch 3  Architectural Design and Communication I ..................................... 3.5
Plus two (2) art history courses selected from ....................................... 6
Art 3, 4, 5, 35
Plus three (3) courses from chosen area (i.e., painting, drawing, sculpture) ................................................................. 9
Special Projects: Art 42 or 49 ................................................................. 2
TOTAL UNITS REQUIRED .................................................................. 32.5

General Education Graduation Requirements - See page 18.

DEGREE
A.A.—Art, Design
CODE #1268

REQUIRED PROGRAM
Art 11A  Elementary Drawing and Composition ........................................ 3
Art 12A  Figure Drawing and Composition .................................................. 3
Art 14  Design: Fundamentals ................................................................. 3
Art 15B  Design: Color Theory ................................................................. 3
Art 16  Three-Dimensional Design ........................................................... 3
Arch 3  Architectural Design and Communication I ..................................... 3.5
Plus one (1) course selected from: ......................................................... 2-3
Art 30A, 40, 41; CIS 17A, 17B; Journalism 35A, 35B
Plus one (1) art history course from: ..................................................... 1-3
Art 3, 4, 5, 35; Photography 1
Special Projects: Art 42 or 49 ................................................................. 2
TOTAL UNITS REQUIRED .................................................................. 23.5-26.5

General Education Graduation Requirements - See page 18.
DEGREE
A.A.—Art, Art History
CODE #1270

REQUIRED PROGRAM ............................................................. Units
Art 3 Art: Stone Age Through Middle Ages ................................ .. 3
Art 4 Renaissance Tradition in Art ............................................... 3
Art 5 Modern Art ................................ ......................................... 3

Plus three (3) courses selected from: .......................................... 7-9
Humanities 1, 2, 3, 7; Architecture 40; Art 35;
Photography 1

Plus one (1) studio course selected from: ................................ 3-3.5
Art 11A, 12A, 14, 17A, 20A; Architecture 3

Special Projects:
Art 42 or 49 ................................ .................................................... 2

TOTAL UNITS REQUIRED ................................ ................... 21-23.5

General Education Graduation Requirements - See page18.

Art

3 ART:  STONE AGE THROUGH MIDDLE AGES  3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This is an illustrated lecture course tracing developments in art from pre-historic times through the Middle Ages. Emphasis will be given to paintings, artifacts, sculpture, and architecture. (CAN ART 2) (ART3 & ART4 = CAN ART SEQA)

4 RENAISSANCE TRADITION IN ART  3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
Study of the architecture, graphic art, painting and sculpture of European cultures from the Pre-Renaissance to the Impressionist period. Art works of each major period will be discussed and analyzed and placed within an historical context. (CAN ART 4) (ART3 & ART4 = CAN ART SEQA)

5 MODERN ART  3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course introduces the study and evaluation of 19th and 20th Century art forms in painting, sculpture, and architecture. Emphasis will be given to 20th Century art.

10 INTRODUCTION TO ART  3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This is an overview of the visual arts including: drawing, sculpture, artifacts, architecture, painting, and printmaking. We will examine the materials, methods, and design principles of creating. This course is recommended as a basis for the understanding of art.

11A ELEMENTARY DRAWING AND COMPOSITION  3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course covers the fundamentals of drawing emphasizing the use of perspective, line, shape, value, space, and composition. It introduces and uses various mediums and techniques. This is a foundation requirement for all art students.
(CAN ART 8)

11B ELEMENTARY DRAWING AND COMPOSITION  3 Units
Prerequisite: Art 11A.
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This drawing class utilizes the skills acquired in 11A to pursue more complex problems. The student will examine and execute a series of related works. Students may wish to challenge the prerequisite on the basis of equivalent experience.

12A FIGURE DRAWING AND COMPOSITION  3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This figure class builds on the skills developed in 11A to pursue more complex problems. The student will examine and execute a series of related works. Students may wish to challenge the prerequisite on the basis of equivalent experience.

12B FIGURE DRAWING AND COMPOSITION 3 Units
Prerequisite: Art 12A.
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This class builds on the skills acquired in 12A. There will be lectures and discussion on proportion, anatomy, and the relationship of the figure to space. There will be practice in developing compositions in which the human figure is dominant. This course may be taken twice for credit.

(CAN ART 24)
14 DESIGN: FUNDAMENTALS 3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course is comprised of lectures and projects concentrating on the elements of design (line, shape, color, texture, form, space) and the principles of organization (such as unity, variety, contrast, balance, emphasis, etc.) as applicable to both the fine and applied arts.

15B DESIGN: COLOR THEORY 3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course covers studio problems in the use and understanding of color and its application to works of art, interior design, and graphics, basics of color theory, and color interchange. It also includes image and composition as related to the use of color both functionally and creatively.

16 THREE DIMENSIONAL DESIGN 3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This is a studio course covering the analysis of historical and contemporary designs and the resolution of technical and conceptual problems (using a variety of media such as: wood, fabric, glass, etc.) by the creation of 3-dimensional forms. Form, color, space, composition, and other formal values will be considered. (CAN ART 16)

17A PAINTING 3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This is an introduction to the tools, materials, and techniques of painting. Coursework includes studies and practice in light and color theory, description of form, and composition. This course may be taken twice for credit.

17B PAINTING 3 Units
Prerequisite: Art 17A.
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This is an intermediate studio course which builds upon the work done in 17A for the student who wishes to develop greater technical skills and problem-solving ability in a more independent framework. Special emphasis will be placed on developing confidence and personal initiative through progressively more complex projects and assignments. This course may be taken twice for credit. Students may wish to challenge the prerequisite on the basis of equivalent experience.

20A WATERCOLOR PAINTING 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This is an introduction to transparent watercolor painting. The class covers media, methods of brush painting, representational and non-representational composition, color relationships, and creative resolutions to watercolor problems. This course may be taken twice for credit.

20B WATERCOLOR PAINTING 3 Units
Prerequisite: Art 20A
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This class builds on skills developed in 20A. It includes an in-depth study of contemporary methods and concepts in transparent watercolor. Emphasis is given to different approaches in watercolor, composition, technical problems and solutions, and individual style development. This course may be taken twice for credit. Students may wish to challenge the prerequisite on the basis of equivalent experience.

21A SCULPTURE 3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This is a basic practice class in the expressive use of form and color in space. The student will use a variety of media, including plaster, wood, glass, clay, or stone. Creative effort, development of individual expression, new ideas, and knowledge of technical processes will be stressed. Content will be developed by using both historical and contemporary approaches. This course may be taken twice for credit. (CAN ART 12)

21B SCULPTURE 3 Units
Prerequisite: Art 21A
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course further develops concepts and techniques acquired in Art 21A in the expressive use of form and color in space. The student will concentrate on given aspects of spatial relationships and the concept of a series, related grouping, or progression of sculpture. This course may be taken twice for credit. Students may wish to challenge the prerequisite on the basis of equivalent experience.

22 CARTOONING 3 Units
Prerequisite: Art 11A
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course is an introduction to cartoon drawing, as used for comic strips, commercial art, graphic design, periodicals, political cartoons, and animation. Emphasis will be given to style and content development. May be taken two times for credit. Students may wish to challenge the prerequisite on the basis of equivalent experience.

26 ART AND CHILDREN 3 Units
Prerequisite: None.
Acceptable for credit: CSU
45 hours lecture, 27 hours laboratory
An exploratory course in children’s art, dealing with the three aspects of art: seeing and feeling visual relationships, producing works of art, and knowing and understanding art objects. At each age and grade level, art will be selected as it relates to the child’s growth and development. Suggested for recreational leadership, preschool or elementary teachers, and care givers.
30A INTRODUCTION TO GRAPHIC DESIGN 3 Units
Prerequisite: Art 14
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This is an introduction to the visual communication arts.
The course will cover a series of creative problems designed
to analyze letterform and image and demonstrate impact on
visual perception. The student will be introduced to the
terminology and visual language of graphic design. Students
may wish to challenge the prerequisite on the basis of
equivalent experience.

34A BEGINNING CLAY SCULPTURE 3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course is an introduction to the basic hand-building
techniques and methods. The class includes glazing and
firing processes used in clay sculpture. Lectures and group
discussions will be conducted in connection with the course.
This class may be taken twice for credit.

34B INTERMEDIATE CLAY SCULPTURE 3 Units
Prerequisite: Art 34A
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course is an intermediate class in ceramic sculpture
techniques and methods. The class will include glazing,
surface treatment and various firing processes used in clay
sculpture. Focus will be placed on in-depth examination of
contemporary ceramic sculpture. This class may be taken
twice for credit.

35 WOMEN IN ART 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This is a survey course of women's art from the Middle Ages
to the present; including the art of both European and non-
European cultures. Art 35 is presented through slide lecture
and discussion which will include historical and cultural
context, limitations imposed by society, and the differences
and similarities of other artists in each period.

36 PORTRAIT DRAWING 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course is an introduction to and exploration of the
human face as a subject in art. Focus will be placed on the
development of skills needed to portray specific individuals
rather than a generalized image. This is primarily a practice
course including elements of the history and traditions of
portraiture as well as anatomy. The course may be taken
twice for credit.

37 WHEEL THROWN CERAMICS, BEGINNING
3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course is an introductory class in wheel-thrown ceramics. The course will provide students with a broad understand-
ing of the ceramics process, from clay composition to fired-glazed wares. Alternative firing processes are explored, such as Raku, pit firing, and sawdust firing. Students at all skill levels may enroll in the class. The class may be taken twice for credit.

37B WHEEL THROWN CERAMICS, INTERMEDIATE
3 Units
Prerequisite: Art 37
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course is an intermediate class in wheel thrown ceramics. The course will provide students with opportunities to further explore the technical and creative processes of ceramic pottery-making, such as, Raku and primitive firing processes and experimentation of different surface treat-
ments. The class may be taken twice for credit.

37C WHEEL THROWN CERAMICS, ADVANCED
3 Units
Prerequisite: Art 37B
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course is an advanced class in wheel thrown ceramics. The class will provide students with individual approaches to create their own unique pottery forms. Emphasis will be placed on more aesthetic approaches to pottery-making. Students will be able to express individual artistic concepts and ideas through pottery forms using various advanced ceramic techniques, which include glazing, firing, and surface treatment. The class may be taken twice for credit.

39 BEGINNING PRINTMAKING 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course is an introduction to basic printmaking tech-
niques. Emphasized are forms of relief printing, silk screen,
and monotype.

40 BEGINNING PHOTOGRAPHY 3 Units
Prerequisite: Completion of or concurrent enrollment in
Photography 1 (Not open to students who have received
credit for Photography 40.)
Acceptable for credit: CSU, UC – See Counselor
36 hours lecture, 54 hours laboratory
A course combining lectures and hands-on experience in
black and white photography. Instruction includes camera
function, exposure control, film processing, enlarging prints,
low-light photography, and print finishing. Creative control
and elements of composition will also be stressed. The
format of the class includes lectures, slide presentations, lab
time, written tests, and a portfolio. This course may be taken
twice for credit.
42 SPECIAL TOPICS  1-3 Units
Prerequisite:  None.  Art 11A and Art 14 recommended.
Acceptable for credit:  CSU, UC
36-108 hours lecture-laboratory
Designed to give students an opportunity to study topics not included in current course offerings. May be repeated for credit, providing there is no duplication of topics.

46 TEACHER AIDE  1 - 4 Units
Prerequisite:  Advanced class in an appropriate area.
Acceptable for credit:  CSU
18 hours lecture, 54-162 hours laboratory
Provides opportunities to develop an in-depth understanding of the visual art (i.e., painting, drawing, etc.) and to learn to work with both individual students and groups of students. May be taken twice for credit for a maximum of 6 units.

47 NATIVE AMERICAN PRIMITIVE ART  3 Units
Prerequisite: None
Acceptable for credit:  CSU, UC
54 hours lecture
Traditional Native American cultures exemplified their religious philosophy and reverence for nature in the utilitarian and art objects they created with clay, stone, fiber and wood. This class introduces the history, culture, mythology and art of the Southwest, Nevada and California Native Americans.

49 SPECIAL STUDIES IN ART  1-3 Units
(See page 21)
Acceptable for credit:  CSU, UC-See Counselor

Art New Media  (ARTNM)

22 DIGITAL PAINTING  3 Units
Prerequisite:  None
Advisory:  Computer Information Science 1; and Art 11A
Acceptable for credit:  CSU
36 hours lecture, 54 hours laboratory
This course introduces the basic operating principles of painter software to create and manipulate images. The fundamental skills of drawing and painting will be applied to individual portfolio quality projects. This course may be taken four times for credit.
Area of Careers and Technology

Automotive Mechanics Technology

DEGREE
A.A.—Automotive Mechanics Technology

CERTIFICATES
Automatic Transmissions/Transaxles
Automotive Mechanics Technology
Automotive Brakes
Automotive Electrical Systems
Automotive Engine Repair
Automotive Heating & Air Conditioning
Automotive Engine Performance
Automotive Suspension & Steering
Automotive Emission Control
Small Engine Repair
Welding Certificate (see welding)

The Automotive Mechanics Technology program emphasizes developing skills required for efficient diagnosis, maintenance, and repair of the automobile and its components. This program and its instructors are Automotive Service Excellence (ASE) certified.

The college offers both theoretical and practical training relating to all phases of the automobile. Upon successful completion of the program, students are qualified for placement as technicians in the auto industry. Students may apply units earned by successful completion of Automotive Mechanics Technology courses to one or more of the specialized certificates and/or the Associate Degree in Automotive Mechanics Technology.

The Automotive Student Service Education Training Program (ASSET), offered in conjunction with Ford Motor Company, is incorporated into this degree program. Contact the ASSET Coordinator at 691-7391 for specific program information.

Career Options
Auto Technician; Auto/Truck Specialist; Automotive Microcomputer Programmer & Operator; Field Service/Sales Representative; Inventory Controls Manager; Tune-up & Electrical Specialist

Highlights
Weekend courses in Smog Certification and other automotive topics
9-week courses to allow completion of certificate in only one year
One of the best equipped shops in Northern California for hands-on training
Graduates routinely pass ASE and State Smog Certification exams
A facility chosen as part of the GM, Ford and Chrysler Technical Training Network
ASE Certified Instructors, Programs and Certificates
Class sizes with an excellent teacher/student ratio
Ford ASSET Program

NATEF certified in the areas of Brakes, Electrical/Electronic Systems, Engine Performance, Suspension and Steering, Automatic Transmission/Transaxle, Engine Repair, Heating and Air Conditioning, and Manual Drive Train and Axles
CERTIFICATE
Automotive Electrical Systems
CODE #1030
This curriculum is designed for students interested in seeking employment in the diagnosis and repair of automotive electrical systems.

REQUIRED PROGRAM ..................................................... Units
AMT 53 Automotive Electrical/Electronic Systems .................. 3
AMT 57 Automotive Fundamentals and Shop Procedures .......... 4
AMT 63 Automotive Ignition Systems .................................. 3
AMT 85 Automotive Computerized Controls .......................... 3
TOTAL UNITS REQUIRED .................................................. 13

CERTIFICATE
Automotive Engine Repair
CODE #1031
This curriculum is designed for students interested in seeking employment in the engine overhaul and engine repair field.

REQUIRED PROGRAM ..................................................... Units
AMT 57 Automotive Fundamentals and Shop Procedures .......... 4
AMT 67 Small Engine Repair ............................................. 3
AMT 77 Engine Repair ..................................................... 3
Plus three (3) units selected from .................................... 3
Any other Automotive Mechanics Technology course
TOTAL UNITS REQUIRED .................................................. 13

CERTIFICATE
Automotive Heating and Air Conditioning
CODE #1032
This curriculum is designed for students interested in seeking employment in the automotive heating and air conditioning repair/installation field.

REQUIRED PROGRAM ..................................................... Units
AMT 53 Automotive Electrical/Electronic Systems .................. 3
AMT 57 Automotive Fundamentals and Shop Procedures .......... 4
AMT 83 Automotive Heating & Air Conditioning .......................... 3
Plus three (3) units selected from .................................... 3
Any other Automotive Mechanics Technology course
TOTAL UNITS REQUIRED .................................................. 13

CERTIFICATE
Small Engine Repair
CODE #1036
This curriculum is designed for students who are interested in obtaining skills necessary for the repair of small engines used in industry, home maintenance, landscape maintenance and recreation.

REQUIRED PROGRAM ..................................................... Units
AMT 53 Automotive Electrical/Electronic Systems .................. 3
AMT 67 Small Engine Repair ............................................. 3
AMT 81 Electronic Fuel Injection ........................................ 3
Plus three (3) units selected from .................................... 3
Any other Automotive Mechanics Technology course
TOTAL UNITS REQUIRED .................................................. 12
CERTIFICATE
Automotive Transmissions/ Transaxles
CODE #1034
This curriculum is designed for students interested in seeking employment in the diagnosis and repair of automatic transmissions/transaxles.

REQUIRED PROGRAM .......................................................... Units
AMT 52 Automotive Manual Drive Trains and Axles ................. 3
AMT 53 Automotive Electrical/Electronic Systems ................... 3
AMT 77 Engine Repair .......................................................... 3
AMT 82 Automatic Transmissions/Transaxles ......................... 3
TOTAL UNITS REQUIRED .................................................... 13

CERTIFICATE
Automotive Suspension and Steering
CODE #1033
This curriculum is designed for students interested in seeking employment in the automotive suspension, steering or wheel alignment fields.

REQUIRED PROGRAM .......................................................... Units
AMT 53 Automotive Electrical/Electronic Systems ................... 3
AMT 73 Wheel Alignment ..................................................... 3
AMT 85 Automotive Computerized Controls ......................... 3
TOTAL UNITS REQUIRED .................................................... 13

CERTIFICATE
Automotive Engine Performance
CODE #1035
This curriculum is designed for students who are interested in seeking employment in the tune-up and diagnosis field. Students may continue with another Automotive certificate or AA without repeating these courses.

REQUIRED PROGRAM .......................................................... Units
AMT 53 Automotive Electrical/Electronic Systems ................... 3
AMT 67 Small Engine Repair) or
AMT 77 Engine Repair ........................................................ 3
AMT 72 Engine Performance ............................................... 3
AMT 81 Electronic Fuel Injection ........................................ 3
AMT 85 Automotive Computerized Controls or
AMT 93 Advanced Clean Air Car Course - Emission Control Service .................................................... 3-7
TOTAL UNITS REQUIRED ................................................ 18-22

CERTIFICATE
Automotive Mechanics Technology
CODE #1028
This one-year curriculum is designed for students who are seeking basic job entry skills for employment in the automotive field. Students may continue with another Automotive certificate or AA without repeating these courses.

REQUIRED PROGRAM .......................................................... Units
AMT 51 Automotive Service Management ............................ 3
AMT 52 Automotive Manual Drive Train and Axles ................. 3
AMT 53 Automotive Electrical/Electronic Systems .................. 3
AMT 62 Automatic Brakes ................................................. 3
AMT 63 Automotive Ignition Systems .................................. 3
AMT 67 Small Engine Repair .............................................. 3
AMT 73 Wheel Alignment .................................................. 3
AMT 77 Engine Repair ..................................................... 3
AMT 81 Electronic Fuel Injection ........................................ 3
AMT 82 Automatic Transmissions/Transaxles ....................... 3
AMT 85 Automotive Computerized Controls ......................... 3
AMT 93 Adv. Clean Air Car Course - Emission Control Service ... 7
TOTAL UNITS REQUIRED ................................................. 40

Automotive Mechanics Technology

49 SPECIAL STUDIES IN 1-3 Units

AUTOMOTIVE MECHANICS TECHNOLOGY
(See page 21)
Acceptable for credit: CSU

51 AUTOMOTIVE SERVICE MANAGEMENT 3 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
A survey of the economic importance and future opportunities in the automotive industry. Specialized areas of repair estimating and service management. A study of materials, use of hand tools, measuring tools and shop equipment.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite(s)</th>
<th>Advisory</th>
<th>Acceptable for Credit</th>
<th>Lecture Hours</th>
<th>Laboratory Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>AUTOMOTIVE MANUAL DRIVE TRAIN AND AXLES</td>
<td>3</td>
<td>None</td>
<td>Successful completion of AMT 57</td>
<td>CSU</td>
<td>36</td>
<td>54</td>
</tr>
<tr>
<td>53</td>
<td>AUTOMOTIVE ELECTRICAL/ELECTRONIC SYSTEMS</td>
<td>3</td>
<td>None</td>
<td>Completion of or concurrent enrollment in AMT 57</td>
<td>CSU</td>
<td>36</td>
<td>54</td>
</tr>
<tr>
<td>57</td>
<td>AUTOMOTIVE FUNDAMENTALS AND SHOP PROCEDURES</td>
<td>4</td>
<td>None</td>
<td></td>
<td>CSU</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>LATE MODEL CAR CARE AND MAINTENANCE</td>
<td>3</td>
<td>None</td>
<td></td>
<td>CSU</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>ADVANCED SERVICE MANAGEMENT</td>
<td>3</td>
<td>None</td>
<td>Successful completion of AMT 57</td>
<td>CSU</td>
<td>36</td>
<td>54</td>
</tr>
<tr>
<td>62</td>
<td>AUTOMOTIVE BRAKES</td>
<td>3</td>
<td>None</td>
<td>Successful completion of AMT 57</td>
<td>CSU</td>
<td>36</td>
<td>54</td>
</tr>
<tr>
<td>63</td>
<td>AUTOMOTIVE IGNITION SYSTEMS</td>
<td>3</td>
<td>None</td>
<td>Successful completion of AMT 53 and AMT 57</td>
<td>CSU</td>
<td>36</td>
<td>54</td>
</tr>
<tr>
<td>67</td>
<td>SMALL ENGINE REPAIR</td>
<td>3</td>
<td>None</td>
<td>Completion of AMT 57</td>
<td>CSU</td>
<td>36</td>
<td>54</td>
</tr>
<tr>
<td>72</td>
<td>ENGINE PERFORMANCE</td>
<td>3</td>
<td>None</td>
<td>Successful completion of AMT 53 or AMT 67</td>
<td>CSU</td>
<td>36</td>
<td>54</td>
</tr>
<tr>
<td>73</td>
<td>WHEEL ALIGNMENT</td>
<td>3</td>
<td>None</td>
<td></td>
<td>CSU</td>
<td>36</td>
<td>54</td>
</tr>
<tr>
<td>74</td>
<td>AUTOMOTIVE SUSPENSION AND STEERING</td>
<td>3</td>
<td>None</td>
<td></td>
<td>CSU</td>
<td>36</td>
<td>54</td>
</tr>
</tbody>
</table>
77 ENGINE REPAIR 3 Units
Prerequisite: None.
Advisory: Completion of AMT 57 and AMT 67.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
The theory of operation and repair of the automotive internal combustion engine. Major emphasis will be on diagnosis, measurement, repair and assembly of the automotive engine.

81 ELECTRONIC FUEL INJECTION 3 Units
Prerequisite: None.
Advisory: Successful completion of AMT 53, AMT 57 or AMT 72.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
Techniques and procedures for diagnosis, overhaul and service of electronic fuel injection. Accessories including different types of electronic fuel injection systems and test equipment. Principles of operation of special equipment such as super-charger and turbo-chargers.

82 AUTOMATIC TRANSMISSIONS/TRANSAXLES 3 Units
Prerequisite: None.
Advisory: Successful completion of AMT 52 and AMT 57.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course is a study of the fundamentals and theory of automatic transmissions/transaxles. The laboratory experience will include inspection, diagnosis and adjustments.

83 AUTOMOTIVE HEATING 3 Units
AND AIR CONDITIONING
Prerequisite: None.
Advisory: Successful completion of AMT 53
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course is a study of installation, operation and repair of automotive air conditioning systems, cooling systems, and heating systems. The course will include a study of the systems for proper functioning including heat transfer and air flow.

85 AUTOMOTIVE COMPUTERIZED CONTROLS 3 Units
Prerequisite: None.
Advisory: Successful completion of AMT 53.
Acceptable for credit: CSU
54 hours lecture
The study of automotive computerized controls and their application to the engine, chassis and braking systems. Students will learn how the computer interacts with the functioning parts of the modern automobile.

86 FORD ELECTRONIC ENGINE CONTROL 5 Units
(EEC IV and V)
Prerequisite: None.
Advisory: Successful completion of AMT 53 and AMT 85, enrollment in the ASSET program.
90 hours lecture
This is an advanced course specializing in Ford Electronic Engine Controls.

90 TOPICS IN AUTOMOTIVE MECHANICS TECHNOLOGY .5-4 Units
Prerequisite: None.
One unit equals 18 hours lecture or 54 hours laboratory
Course work designed to cover special topics not included in current automotive offerings in a timely manner. Topics may be offered in workshops or seminar presentations on timely subjects or targeted for specific audiences.

92 AUTOMOTIVE SERVICE 1 Unit
Prerequisite: None.
Advisory: Successful completion of AMT 57
15 hours lecture, 9 hours laboratory
A short-term course designed to enable students to gain skills in a specialized automotive area and to assist the student in preparation for state license requirements when applicable. Some of the service system topics that may be scheduled include: brakes, charging, ignition, alignment, disc brakes, automatic transmission, air conditioning and management. Students may receive one unit of credit for each topic area. Consult class schedule for specific topics being offered.

93 ADVANCED CLEAN AIR CAR COURSE - 7 Units
EMISSION CONTROL SERVICE
Prerequisite: None
Advisory: AMT 72 or AMT 81, and AMT 53 and AMT 85.
Acceptable for credit: CSU
126 hours lecture
This course includes testing, diagnosis, and service of all automotive emission control systems. Included in the course are the eight hours of training required by the Bureau of Automotive Repair for technicians to perform Loaded Mode Emission testing in impacted areas of the state. The course is required for all students who plan to become licensed as test-only technicians, intern diagnostic technicians, basic or advanced test and repair technicians. Upon successful completion of this course, students are eligible for a BAR Intern License, Test-Only Technician License, and may be eligible for a Basic or Advanced Emission Test and Repair License. Course may be taken two times for credit.

Note: Eligibility for Clean Air Course Certification requires one of the following before entry into this course: 9 units in engine performance or 180 hours of documented engine performance education/training or 1 year of verifiable full time engine performance work (or combination).
BAR 97 UPDATE TRAINING - LOADED MODE DIAGNOSTICS
1.5 Units
Prerequisite: Completion of AMT 93 (Bureau of Automotive Repair Advanced Clean Air Course) or possession of a BAR Basic or Advanced Area Smog Technician License.
27 hours lecture
This course covers advanced emission testing, service, and repairs for “Enhanced Areas” of the state of California (the most heavily polluted urbanized areas of the state). Instruction will include baseline techniques, loaded mode testing, dynamometers, advanced wave form patterns, diagnostic strategies, catalytic converter testing, $O_2$ sensor testing, and information specific to California’s emission standards.

AUTOMOTIVE EMPLOYMENT TECHNIQUES 1 Unit
Prerequisite: None.
(Not open to students who have received credit for Automotive Mechanics Technology 98)
18 hours lecture
This course will acquaint students with the current and local automotive job market. Students will prepare letters of application, resumes, and follow-up activities. Students will have an opportunity to participate in mock interviews, to communicate problems and develop positive human relations techniques.

WORK EXPERIENCE IN AUTOMOTIVE MECHANICS TECHNOLOGY 1 - 4 Units
Acceptable for credit: CSU - See Counselor
(See page 22)
Area of Science, Mathematics & Engineering

**Biology**

DEGREE A.A.—Science and Mathematics (see Science, page 258)

CRC’s Biology program offers courses which satisfy general education requirements in Life Sciences, are prerequisites for a degree in Veterinary Technology, Medical Assisting, Health Information Technology, and Environmental Technology, and prepare students for transfer opportunities to four-year programs in biological sciences, nursing, physical therapy, and programs leading to careers in teaching, medicine, dentistry, veterinary medicine, etc.

Students planning to continue for a four-year degree should consult the lower division requirements of the transfer program of the university to which they plan to attend.

Career Options

- Nursing/Physician’s Assistant/Physical Therapy; Teaching; Microbiology; Wildlife Biology; Marine Biology; Pharmacy; Medicine/Dentistry/Veterinary Medicine; Optometry; Research; Nutrition

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

**Highlights**

- Extensive laboratory experience
- Day and evening sections of pre-nursing classes
- Field Trips
  - A friendly faculty who have studied biology in South America, the Galapagos Islands, Africa and North America
  - A Mathematics, Engineering and Science Achievement (MESA) program

**Biology**

A locker deposit is required to participate in most biology courses. The deposit is payable at the Business Office prior to the third class meeting. This fee is refundable at the end of the semester; however, if chemical glassware is broken or missing, the charge will be deducted from the deposit.

1. **PRINCIPLES OF BIOLOGY** 5 Units
   
   Prerequisite: Chemistry 1A, 2A or 51 with a grade of “C” or better. Chemistry 1A or 2A may be taken concurrently. Acceptable for credit: CSU, UC
   
   54 hours lecture, 108 hours laboratory
   
   This course introduces universal biological principles, including biological molecules, enzymes, cell structure and function, biochemistry, Mendelian and molecular genetics, ecology and evolution. Biology 1A is recommended for science majors and students in pre-professional programs.
   
   (CAN BIOL 2) (BIOL 1A+ 2+ 3 = CAN BIOL SEQA)

2. **PRINCIPLES OF BOTANY** 5 Units
   
   Prerequisite: Biology 1A with a grade of “C” or better. Acceptable for credit: CSU, UC
   
   54 hours lecture, 108 hours laboratory
   
   This course introduces the biology of plants, fungi, cyanobacteria, and algae. Topics covered include the anatomy and physiology, development, classification, evolution and ecology of botanical organisms. Some labs involve local field trips; a weekend field trip may be required (an alternative assignment will be available).
   
   (CAN BIOL 6) (BIOL 1A+ 2+ 3 = CAN BIOL SEQA)

3. **PRINCIPLES OF ZOOLOGY** 5 Units
   
   Prerequisite: Biology 1A with a grade of “C” or better Acceptable for credit: CSU, UC
   
   54 hours lecture, 108 hours laboratory
   
   An introduction to zoology with particular emphasis on comparative anatomy and physiology of vertebrates and invertebrates. The basic principles of evolution, taxonomy, embryology, morphology, physiology, behavior and ecology will be covered.
   
   (CAN BIOL 4) (BIOL 1A+ 2+ 3 = CAN BIOL SEQA)
12 THE FOUNDATIONS OF BIOLOGY 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC - See Counselor
54 hours lecture
This course is a survey of major topics in the biological sciences for the non-science major with an emphasis on human biology. Units covered include the origin of life, cell structure and chemistry, metabolism, Mendelian and molecular genetics, genetic engineering, evolution, anatomy and physiology of humans, animal behavior and ecology.

13 BIOLOGY OF ORGANISMS 4 Units
Prerequisite: None.
Acceptable for credit: CSU, UC — See Counselor
54 hours lecture, 54 hours laboratory
This is a general biology course focusing on a survey of the plant and animal kingdoms. The course covers the general principles of biology including: methods of science, cell organization, genetics, evolution, ecology, biodiversity, and anatomy. These principles are explored in more depth through the examination of additional topics which may include: disease and epidemiology, physiological ecology, animal behavior, biotechnology, population growth and regulation, ecosystem ecology, and conservation biology. Evolution and biodiversity are continuing themes running throughout the course and are included in each major topic. The course is designed for non-science majors and is especially useful for liberal studies, elementary education, environmental studies, recreation, and similar majors.

14 ENVIRONMENTAL BIOLOGY 3 Units
Prerequisite: None. (Not open to students who have received credit for Environmental Technology 4.)
Acceptable for credit: CSU, UC
54 hours lecture
An overview of ecosystems and natural resources. Major topics covered include ecological principles, ecosystem functioning, conservation biology, resource use and management, pollution and other human-caused environmental impacts. This course provides the background needed to understand major global and regional issues such as acid rain, global warming, hazardous waste disposal, deforestation and endangered species recovery. Biology 14 is especially useful for Environmental Technology, Environmental Sciences, Ecology, Recreation, Education and Political Science majors. Field trips, attendance at public meetings and/or a semester project may be required.

16 GENERAL BIOLOGY 4 Units
Prerequisite: None.
Acceptable for credit: CSU, UC — See Counselor
54 hours lecture, 54 hours laboratory
This course is a survey of biological science with an emphasis on human biology. It is intended for the non-science major as well as environmental technology majors. Units covered include cell biology, metabolism, Mendelian and molecular genetics, evolution, anatomy and physiology, animal behavior, and ecology. The laboratory activities are designed to further investigate and illuminate each topic area.

17 BIOLOGICAL CONCEPTS 4 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory, including a one-day field trip
Biological principles are presented in view of contemporary problems, issues and applications, using plants as the main vehicle with human and animal comparisons. Study modules include philosophy of science, classification, cellular biology and physiology, anatomy, growth and development, reproduction and genetics, and an extensive unit on ecology including a High Sierra field trip. Modules include test performance objective for student examination preparation. Laboratory experience complements and amplifies the lectures.

24 NATURAL HISTORY FIELD STUDY 1-4 Units
Prerequisite: None.
Acceptable for credit: CSU
Based on a maximum of 6 hours lecture and a minimum of 36 hours field experience per unit of credit
This course will study the ecology and natural history covered in the field. Animals, plants and geology will be studied and their interrelationships investigated. The course(s) will be offered in the appropriate area (mountains, desert or seashore and ocean). Assignments, field notes and appropriate exams/quizzes will be an integral part of the course. Students will be responsible for providing their own lodging or camping equipment and meals. Campsites will be available. This course is ideal for future teachers, parents, resource management majors and those interested in the biological sciences.

25 ANATOMY AND PHYSIOLOGY 5 Units
Prerequisite: Chemistry 1A, 2A, or 51 with a grade of "C" or better, or equivalent high school laboratory chemistry course with a grade of "C" or better.
Acceptable for credit: CSU, UC
54 hours lecture, 108 hours laboratory
An introductory course in which the basic principles of human anatomy and physiology are presented in an integrated fashion. This course covers anatomical terminology, basic organic chemistry, histology, and the integumentary, skeletal, muscular and nervous systems. Both Biology 25 and Biology 26 must be taken to study all of the major body systems.
26 ANATOMY AND PHYSIOLOGY 5 Units
Prerequisite: Biology 25 with a grade of "C" or better
Acceptable for credit: CSU, UC
54 hours lecture, 108 hours laboratory
An introductory course in which the basic principles of human anatomy and physiology are presented in an integrated fashion. This course covers the circulatory, respiratory, digestive, urinary, endocrine and reproductive systems. Both Biology 25 and Biology 26 must be taken to study all of the major body systems.

46 TEACHER AIDE 1-4 Units
Prerequisite: None
Advisory: A grade of "B" or better in the course for which the student is going to be a teacher aide.
Acceptable for credit: CSU
9 hours lecture, 27 hours in-class tutoring equals one unit
For students who want to develop an in-depth understanding of the fundamentals of biology and learn to work with individual students and small groups of students. Open entry and exit. May be taken two times for credit. Maximum of 6 units may be earned.

49 SPECIAL STUDIES IN BIOLOGY 1-3 Units
(See page 21)
Acceptable for credit: CSU, UC — See Counselor

50 BASIC ANATOMY AND PHYSIOLOGY 4 Units
Prerequisite: None.
54 hours lecture, 54 hours laboratory
This introductory course in basic human anatomy and physiology is designed for environmental technology majors, medical assisting and health information technology majors, and other health related technologies. Either Biology 50 or 51 may be taken first but both courses are necessary for a complete study of human anatomy and physiology. Biology 50 covers an introduction to body organization, basic chemistry, cells and tissues, and the integumentary, skeletal, muscular, nervous and circulatory systems. Biology 50 and 51 fulfill the Natural Science requirement for an AA degree. This course is not acceptable in most nursing and respiratory care programs.

51 BASIC ANATOMY AND PHYSIOLOGY 4 Units
Prerequisite: None.
54 hours lecture, 54 hours laboratory
This introductory course in basic human anatomy and physiology is designed for medical assisting, health information technology, environmental technology majors, and other health related technologies. Either Biology 50 or 51 may be taken first but both courses are necessary for a complete study of human anatomy and physiology. Biology 51 covers an introduction to body organization, basic chemistry, cells and tissues, and the respiratory, digestive, urinary, endocrine and reproductive systems. Biology 50 and 51 fulfill the Natural Science requirement for an AA degree. These courses are not acceptable in most nursing and respiratory care programs.
Area of Communication, Visual & Performing Arts

Broadcast Journalism

DEGREE A.A.—Communications Media, Broadcast Journalism

This CRC program introduces students to the field of broadcast journalism and prepares them for internships or transfer to a four-year institution.

Career Options
News Broadcaster; Sportscaster; Announcer

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Highlights
Practical experience in the newly equipped and remodeled campus radio station, KCOS, or TV studio

Internship opportunities in local radio and TV stations

DEGREE
A.A.—Communications Media, Broadcast Journalism

CODE #1057

REQUIRED PROGRAM ............................................................. Units
CMED 5  Mass Media and Society ............................................ 3
CMED 54 Basic Film/Video Camera Techniques ................................. 3
CMED 56  Radio Studio Operations ............................................ 3
CMED 62 Introduction to Telecommunications ................................... 3
CMED 63 Broadcast Writing and Announcing .................................. 3
CMED 64 Television Production ..................................................... 3
CMED 73 Broadcast Journalism ...................................................... 3
CIS 1/JOUR 1 Computer Familiarization ....................................... 1
JOUR 20A Newswriting and Reporting ........................................... 3
Plus six (6) units selected from:
Communication Media 60, 65, 66, 74, 80, 98;
Journalism 30, 54; Photography 40; Speech 7, 8, 13 ..................... 6
TOTAL UNITS REQUIRED .......................................................... 31

Suggested Electives:
Economics 1A; Political Science 1, 2, 10; Psychology 7;
Speech 2, 3

General Education Graduation Requirements—See page 18.

See Communications Media section for other programs and offerings.
Area of Careers and Technology

Building Inspection Technology

**DEGREE**  A.S.—Building Inspection Technology

**CERTIFICATES**
- Building Inspection Technology
- Concrete Construction Inspection
- Electrical Construction Inspection
- H.V.A.C. Inspection
- Masonry Construction Inspection
- Plumbing Inspection
- Soils & Asphalt Construction Inspection
- Steel Construction Inspection
- Wood Frame Construction Inspection

This CRC program has been developed to prepare individuals for employment in building inspection. Graduates may be employed by contractors, government agencies, architects, finance companies and developers. A wide variety of employment opportunities exist in the fast-growing construction industry in the Sacramento Valley.

Graduates should anticipate studying for and taking the ICBO examinations for building inspectors. The International Conference of Building Officials (ICBO) certification is recognized throughout the United States.

**Career Options**
- Building Inspector; Plan Checker;
- Construction Supervisor; Foreman;
- Construction Management;
- Government Building Official

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

**Highlights**
- Field trips to a variety of construction sites to study inspection technologies and code interpretations (Instructor Option)
- Association with instructors who are county and city building officials and inspectors
Degree
A.S.—Building Inspection Technology
CODE # 1045

REQUIRED PROGRAM ................................................................. Units
BIT 57 Introduction to Uniform Building Code 3
BIT 58 Reading and Non-Structural Plan Review 3
BIT 59 Uniform Building Code - Fire and Life Safety 3
BIT 62 Building Inspection Principles for Disabled Access 2
BIT 74 Building Department Administration for Inspectors 3
CMT 51 Materials of Construction 3
CIS 1 Computer Familiarization 1
Plus a minimum of twenty-one (21) units selected from...
BIT 60 Engineering & Structural Principles for Bldg. Constr. (3)
BIT 63 Mechanical I / Plumbing Code Requirements (3)
BIT 64 Mechanical II / H.V.A.C. Code Requirements (3)
BIT 65 Introduction to Inspection of Wood Frame Construction (3)
BIT 66 Steel Construction Principles and Inspection (3)
BIT 67 Soils and Asphalt Principles and Inspection (3)
BIT 68 Concrete Principles and Inspection (3)
BIT 69 Masonry Principles and Inspection (3)
BIT 70 Electrical I (3)
BIT 71 Electrical II (3)
BIT 75A Inspection Principles for Dangerous Buildings & Sub-Standard Housing (2)
BIT 75B Code Enforcement for Dangerous Buildings (2)
TOTAL UNITS REQUIRED: 39

Suggested Electives:
Drafting 66: Introduction to Computer-Aided Design Drafting;
CMT 53 (Legal Aspects of Construction); Business 18A (Business Law)

General Education Graduation Requirements - See page 18.

Certificate
Concrete Construction Inspection
CODE # 1338

REQUIRED PROGRAM ................................................................. Units
BIT 57 Introduction to Uniform Building Code 3
BIT 58 Reading and Non-Structural Plan Review 3
CMT 51 Materials of Construction 3
CIS 1 Computer Familiarization 1
BIT 68 Concrete Principles and Inspection 3
TOTAL UNITS REQUIRED 13

Suggested Elective:
Drafting 66: Introduction to Computer-Aided Design Drafting

Certificate
Electrical Construction Inspection
CODE # 1340

REQUIRED PROGRAM ................................................................. Units
BIT 57 Introduction to Uniform Building Code 3
BIT 58 Reading and Non-Structural Plan Review 3
CMT 51 Materials of Construction 3
CIS 1 Computer Familiarization 1
BIT 70 Electrical I 3
BIT 71 Electrical II 3
TOTAL UNITS REQUIRED 16

Suggested Elective:
Drafting 66: Introduction to Computer-Aided Design Drafting

Certificate
H.V.A.C. Inspection
CODE # 1334

REQUIRED PROGRAM ................................................................. Units
BIT 57 Introduction to Uniform Building Code 3
BIT 58 Reading and Non-Structural Plan Review 3
CMT 51 Materials of Construction 3
CIS 1 Computer Familiarization 1
BIT 64 Mechanical II: H.V.A.C. Code Requirements 3
TOTAL UNITS REQUIRED 13

Suggested Elective:
Drafting 66: Introduction to Computer-Aided Design Drafting

Certificate
Masonry Construction Inspection
CODE # 1339

REQUIRED PROGRAM ................................................................. Units
BIT 57 Introduction to Uniform Building Code 3
BIT 58 Reading and Non-Structural Plan Review 3
CMT 51 Materials of Construction 3
CIS 1 Computer Familiarization 1
BIT 69 Masonry Construction Inspection 3
TOTAL UNITS REQUIRED 13

Suggested Elective:
Drafting 66: Introduction to Computer-Aided Design Drafting
CERTIFICATE
Plumbing Inspection
CODE # 1333

REQUIRED PROGRAM ............................................................. Units
BIT 57 Introduction to Uniform Building Code .......................... 3
BIT 58 Reading and Non-Structural Plan Review ....................... 3
CMT 51 Materials of Construction ........................................... 3
CIS 1 Computer Familiarization .............................................. 1
BIT 63 Mechanical I: Plumbing Code Requirements .................... 3
TOTAL UNITS REQUIRED ........................................................ 13

Suggested Elective:
Drafting 66: Introduction to Computer-Aided Design Drafting

CERTIFICATE
Soils and Asphalt Construction Inspection
CODE # 1337

REQUIRED PROGRAM ............................................................. Units
BIT 57 Introduction to Uniform Building Code .......................... 3
BIT 58 Reading and Non-Structural Plan Review ....................... 3
CMT 51 Materials of Construction ........................................... 3
CIS 1 Computer Familiarization .............................................. 1
BIT 67 Soils and Asphalt Principles and Inspection ................... 3
TOTAL UNITS REQUIRED ........................................................ 13

Suggested Elective:
Drafting 66: Introduction to Computer-Aided Design Drafting

CERTIFICATE
Steel Construction Inspection
CODE # 1336

REQUIRED PROGRAM ............................................................. Units
BIT 57 Introduction to Uniform Building Code .......................... 3
BIT 58 Reading and Non-Structural Plan Review ....................... 3
CMT 51 Materials of Construction ........................................... 3
CIS 1 Computer Familiarization .............................................. 1
BIT 66 Steel Construction Principles and Inspection .................. 3
TOTAL UNITS REQUIRED ........................................................ 13

Suggested Elective:
Drafting 66: Introduction to Computer-Aided Design Drafting

CERTIFICATE
Wood Frame Construction Inspection
CODE # 1335

REQUIRED PROGRAM ............................................................. Units
BIT 57 Introduction to Uniform Building Code .......................... 3
BIT 58 Reading and Non-Structural Plan Review ....................... 3
CMT 51 Materials of Construction ........................................... 3
CIS 1 Computer Familiarization .............................................. 1
BIT 65 Introduction to Inspection of Wood Frame Construction ...... 3
TOTAL UNITS REQUIRED ........................................................ 13

Suggested Elective:
Drafting 66: Introduction to Computer-Aided Design Drafting

Building Inspection Technology

49 SPECIAL STUDIES IN BUILDING 1 - 3 Units
INSPECTION TECHNOLOGY (see catalog p. 21)

57 INTRODUCTION TO UNIFORM BUILDING CODE 3 Units
Prerequisite: None.
54 hours lecture
This basic course designed to provide background material on which the Uniform Building Code was founded and the legal basis for the code. Emphasis will be placed on the development and proper use of the code.

58 READING AND NON-STRUCTURAL PLAN REVIEW 3 Units
Prerequisite: None.
Advisory: BIT 57 and Drafting 51
54 hours lecture
This course provides a thorough understanding of the plan Reading and Non-Structural plan review process undertaken by the building departments prior to plan approval.

59 UNIFORM BUILDING CODE - FIRE & LIFE SAFETY 3 Units
Prerequisite: None.
Advisory: CMT 50 or BIT 57
54 hours lecture
The course covers the use and application of Uniform Building Code for construction supervision and inspection.

60 ENGINEERING AND STRUCTURAL PRINCIPLES FOR BUILDING CONSTRUCTION 3 Units
Prerequisite: None.
54 hours lecture
This course covers the basic engineering and structural principles used in the construction industry. This course includes civil engineering plan reading, site layout, mechanics or materials, soil fundamentals, and the construction and inspection of foundations.

62 BUILDING INSPECTION PRINCIPLES FOR DISABLED ACCESS 2 Units
Prerequisite: None.
36 hours lecture
This is a course designed to examine the state regulations that govern the design and construction of public buildings, publicly funded living accommodations, hotels and motels, and multi-family dwellings for individuals with mobility and sensory impairments. The course is designed specifically for building inspectors to develop knowledge and skills in disabled access inspections.
Mechanical Code, and legal and administrative enforcement procedures and wall framing, and wall bracing for seismic design. Simple beam calculations will be made.

Plumbing Code, legal and administrative enforcement procedures, techniques used in plumbing installations.

This course covers the use and interpretation of the Uniform Plumbing Code, legal and administrative enforcement procedures, field inspection techniques and procedures, methods and techniques used in plumbing installations.

Advisory: BIT 57
Prerequisite: None
54 hours lecture

This course covers the use and interpretation of the Uniform Mechanical Code, and legal and administrative enforcement procedures used in heating, ventilating, air conditioning and related installations.

Advisory: CMT 50
Prerequisite: None
54 hours lecture

This is a basic course designed to provide a thorough understanding of wood frame construction requirements for building plan review and inspection. The course will cover inspections for floor, roof and wall framing, and wall bracing for seismic design. Simple beam calculations will be made.

Advisory: BIT 57
Prerequisite: None
54 hours lecture

This course covers inspection principles for dangerous buildings and sub-standard housing. It is designed for officials (and their representatives) of public agencies who are responsible for field inspection, case management, and the application of regulations and applicable model codes. Students will learn how to conduct inspections and manage case files in accordance with applicable codes, such as city building and fire codes.

Advisory: BIT 57, CMT 51
Prerequisite: BIT 75A
36 hours lecture

This is a course in masonry principles for building inspectors. The course will cover materials used in masonry construction; quality control, sampling and testing; general construction practice and layout; reinforcing steel, grouting of concrete masonry walls; and Uniform Building Code standards relating to masonry.

Advisory: BIT 70
Prerequisite: None
54 hours lecture

This course covers a review of basic electricity for building inspection. In addition, the course covers the basic electrical code requirements for residential and commercial structures as required in the National Electrical Code and the California Utility Code.

Advisory: BIT 70
Prerequisite: None
54 hours lecture

This course is designed to give the student a basic understanding and overview of the various elements and concepts involved in the administration of a building department at the local government level. Laws and regulations specific to the California State Building Code will be discussed.

Advisory: BIT 70
Prerequisite: None
54 hours lecture

This course covers inspection principles for dangerous buildings and sub-standard housing. It is designed for officials (and their representatives) of public agencies who are responsible for field inspection, case management, and the application of regulations and applicable model codes. Students will learn how to conduct inspections and manage case files in accordance with applicable codes, such as city building and fire codes.

Advisory: BIT 70
Prerequisite: None
54 hours lecture

This course covers inspection principles for dangerous buildings and sub-standard housing. It is designed for officials (and their representatives) of public agencies who are responsible for field inspection, case management, and the application of regulations and applicable model codes. Students will learn how to conduct inspections and manage case files in accordance with applicable codes, such as city building and fire codes.

Advisory: BIT 70
Prerequisite: None
54 hours lecture

This course covers inspection principles for dangerous buildings and sub-standard housing. It is designed for officials (and their representatives) of public agencies who are responsible for field inspection, case management, and the application of regulations and applicable model codes. Students will learn how to conduct inspections and manage case files in accordance with applicable codes, such as city building and fire codes.

Advisory: BIT 70
Prerequisite: None
54 hours lecture

This course follows BIT 75A which covers inspection principles for dangerous buildings and sub-standard housing. It is designed for officials (and their representatives) of public agencies who are responsible for field inspection, case management, and the application of regulations and applicable model codes. BIT 75B will cover asbestos removal, personal security, search and seizure authorization, and procedures to follow in the enforcement of city sub-standard housing codes.
Area of Business & Family Science

Business

See Also

Accounting . . . page 40
Business, General . . . page 77
Business, General, Transfer . . . page 77
Computer Information Science . . . page 94
Economics . . page 130
Finance . . . page 157
Management . . . page 210
Marketing . . . page 213
Office Administration . . . page 78
Real Estate . . . page 255
Small Business Management / Entrepreneurship . . . page 77

These CRC program offerings are designed to prepare students for initial entry into careers or for career advancement in various areas of business, as well as for transfer to other colleges and universities.

Career Options

See the corresponding pages for the specific career options in each of the above fields of study.
Area of Business & Family Science

**Business**

**DEGREES**
- A.A.—Business, General Transfer
- A.A.—Business, General
- A.A.—Business, Small Business Management/Entrepreneurship
- A.A.—Business, Administrative Assistant

**CERTIFICATES**
- Business, Administrative Assistant
- Business, Small Business Management/Entrepreneurship
- Office Assistant, Data Entry
- Office Assistant, Information Processing
- Office Assistant, General Clerk
- Applications of Desktop G.I.S. (Business/Marketing emphasis) (see page 259)

CRC's business programs are designed to provide an entrance into an exciting career. Many opportunities are available which can lead to immediate employment and/or career advancement. CRC offers a variety of degrees and certificates to meet students' present and future needs. Whether it is one class or a step toward a degree, there are a variety of options. See the following career options for which CRC provides training and expertise.

**Career Options**
- Account Executive; Analyst; Bank Employee; Buyer; Clerk; Data Entry Clerk; Data Entry Specialist; Entrepreneur; Financial Planner; Government Service; Insurance Representative; Investment Counselor; Manager; Marketing; Market Research; Office Assistant; Public Administration; Purchasing Agent; Real Estate; Retail/Industrial Sales; Stockbroker; Tax Consultant

There are some self-employment opportunities available in these fields. Some career options may require more than two years of college study.

**Highlights**
- Additional training in courses acceptable as electives for civil service occupations
- Hands-on experience in the use of computers for business purposes
- Opportunities for work experience in local industry and business
- Training for small business management/entrepreneurship
- A lab with tutorial assistance

**TRANSFER IN BUSINESS ADMINISTRATION**

A student transferring with upper division standing to California State University, Sacramento, College of Business Administration, should have completed a minimum of 56, and a maximum of 70, transfer units. The Counseling Center has information regarding requirements, which may vary from the core listed below, at other four-year institutions. The course work may include all of the pre-major core courses and transfer general education requirements.

Economics 1A, 1B
Mathematics 43
Statistics 1
Competency in a foreign language at the 2B level is required for an International Business major

In addition to the above core, a student, in consultation with a counselor, should plan a program to meet the transfer general education requirements.

See Transfer information on pages 24-28.
DEGREE
A.A.—Business, General, Transfer
CODE #1047
This program provides the courses necessary for a transfer to a four-year college in business while also allowing the student to select courses which fit his/her individual needs and desires.

REQUIRED PROGRAM ............................................................. Units
ACC 1A Financial Accounting 4
ACC 1B Managerial Accounting 4
BUS 18A Business Law 3
BUS 20 Introduction to Business 3
CIS 11A Beginning Wordprocessing - (1) and
CIS 12A Electronic Spreadsheets - (1) and
CIS 14A Operating Systems - (1) or
CIS 3 Intro. to Computer Information Science - (3) ....... 3
ECON 1A Principles of Economics 3
ECON 1B Principles of Economics 3
MATH 43 Calculus for Business and Economics 4
STAT 1 Introduction to Probability and Statistics 4
TOTAL UNITS REQUIRED .......................................................... 31

Suggested Electives:
Accounting 5, 6, Business 8, 16, 41, 42; Computer Information Science 1, 36A; Management 1, 23, 24; Marketing 20, 51; Real Estate 19

General Education Graduation Requirements - See page 18.

DEGREE
A.A.— Business, General
CODE #1046
This program provides an overview of business fundamentals for students interested in most business occupations. The program is also recommended for general government service occupations.

REQUIRED PROGRAM ............................................................. Units
Business Core:
ACC 1A Financial Accounting or
ACC 60 Fundamentals of College Accounting ................. 3-4
BUS 8 Business Communications ......................... 3
BUS 15 Managing Diversity in the Workplace .................. 3
BUS 16/SOC SCI 16 Law and Society or
BUS 18A Business Law .............................................. 3
BUS 20 Introduction to Business .................................... 3
MKT 20 Principles of Marketing ..................................... 3
CIS 3 Introduction to Computer Information Science or
Three (3) units to include:
CIS/ JDUR 1 Computer Familiarization - (1) and
Two (2) additional units selected from:
ECON 1A Principles of Economics or
ECON 14/BUS 14 Concepts of Personal Finance or
ECON 55 Introduction to Economics ............................. 3
MGMT 1 Total Quality Management or
MGMT 24 Techniques of Management .......................... 3
General Option:
BUS 98Work Experience or
Human/Career Development 4A, 4B, 5, 7, 8, 9 ............... 3
Plus Six (6) units from one concentration selected from 37.5-38.5
Accounting, Business, Computer Information Science,
Management, Marketing, or Real Estate
General Education Graduation Requirements - see page 18.
### DEGREE

**A.A.—Business, Small Business Management/Entrepreneurship**

**CODE #1254**

<table>
<thead>
<tr>
<th>Required Program</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 1A Financial Accounting or ACC 60 Fundamentals of College Accounting</td>
<td>3-4</td>
</tr>
<tr>
<td>BUS 8 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 15 Managing Diversity in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>BUS 16/SOC SCI 16 Law and Society or BUS 18A Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUS 20 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 41 Introductory Keyboarding</td>
<td>1.5</td>
</tr>
<tr>
<td>MKT 20 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1A Principles of Economics or ECON 14/BUS 14 Concepts of Personal Finance or ECON 55 Introduction to Economics</td>
<td>3</td>
</tr>
<tr>
<td>CIS 3 Introduction to Computer Information Science</td>
<td>3</td>
</tr>
</tbody>
</table>

**Small Business Management/Entrepreneurship Option:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKT 22 Selling Professionally</td>
<td>3</td>
</tr>
<tr>
<td>MKT 26/COMM MEDIA 60 Advertising</td>
<td>3</td>
</tr>
<tr>
<td>BUS 70 Small Business Management/Entrepreneurship</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED** 34.5-35.5

**Suggested Electives:** Accounting 5, 77; Management 1, 23, 24.

**General Education Graduation Requirements - see page 18.**

### CERTIFICATE

**Small Business Management/Entrepreneurship**

**CODE #1254**

<table>
<thead>
<tr>
<th>Required Program</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 8 Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>BUS 20 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 41 Introductory Keyboarding</td>
<td>1.5</td>
</tr>
<tr>
<td>MKT 20 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 22 Selling Professionally</td>
<td>3</td>
</tr>
<tr>
<td>BUS 70 Small Business Management/Entrepreneurship</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED** 19.5

**Three (3) units selected from:**

- BUS 98 Work Experience
- Human/Career Development (any course combination)

**COSUMNES RIVER COLLEGE 2000 - 2001**
**DEGREE**

A.A.—Business, Administrative Assistant

CODE #1052

**REQUIRED PROGRAM**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 8</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 10</td>
<td>Electronic Calculators</td>
<td>2</td>
</tr>
<tr>
<td>BUS 41</td>
<td>Introductory Keyboarding</td>
<td>1.5</td>
</tr>
<tr>
<td>BUS 42</td>
<td>Keyboard Formatting</td>
<td>1.5</td>
</tr>
<tr>
<td>BUS 52</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>BUS 80</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>BUS 98</td>
<td>Work Experience</td>
<td>3</td>
</tr>
<tr>
<td>CIS 11A</td>
<td>Beginning Wordprocessing</td>
<td>1</td>
</tr>
<tr>
<td>CIS 11B</td>
<td>Intermediate Wordprocessing</td>
<td>1</td>
</tr>
<tr>
<td>CIS 11C</td>
<td>Advanced Wordprocessing</td>
<td>1</td>
</tr>
<tr>
<td>CIS 12A</td>
<td>Electronic Spreadsheets</td>
<td>1</td>
</tr>
<tr>
<td>CIS 12B</td>
<td>Intermediate Electronic Spreadsheets</td>
<td>1</td>
</tr>
<tr>
<td>CIS 13A</td>
<td>Database Management</td>
<td>1</td>
</tr>
<tr>
<td>ACC 5, ACC 70</td>
<td>BUS 60, BUS 87, CIS 12B, CIS 17B</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED: 42.5 - 43.5

Suggested Electives for Concentration: Accounting 1B; Computer Information Science 13B, 14B, 15B, 16B; Management 21, 23.

General Education Graduation Requirements - See page 18.

**CERTIFICATE**

Business, Administrative Assistant

CODE #1052

**REQUIRED PROGRAM**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 8</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 10</td>
<td>Electronic Calculators</td>
<td>2</td>
</tr>
<tr>
<td>BUS 41</td>
<td>Introductory Keyboarding</td>
<td>1.5</td>
</tr>
<tr>
<td>BUS 42</td>
<td>Keyboard Formatting</td>
<td>1.5</td>
</tr>
<tr>
<td>BUS 52</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>BUS 80</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>BUS 98</td>
<td>Work Experience</td>
<td>3</td>
</tr>
<tr>
<td>BUS 82</td>
<td>Skills for Today's Office</td>
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<tr>
<td>TOTAL</td>
<td>REQUIRED UNITS</td>
<td>16</td>
</tr>
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**CERTIFICATE**

Business, Office Assistant, Data Entry

CODE #1209

**REQUIRED PROGRAM**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BUS 10</td>
<td>Electronic Calculators</td>
<td>2</td>
</tr>
<tr>
<td>BUS 41</td>
<td>Introductory Keyboarding</td>
<td>1.5</td>
</tr>
<tr>
<td>BUS 42</td>
<td>Keyboard Formatting</td>
<td>1.5</td>
</tr>
<tr>
<td>BUS 52</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>BUS 80</td>
<td>Business English</td>
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<tr>
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<td>Work Experience</td>
<td>3</td>
</tr>
<tr>
<td>CIS 11A</td>
<td>Beginning Wordprocessing</td>
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TOTAL REQUIRED UNITS: 10 - 12

**CERTIFICATE**

Office Assistant, Information Processing

CODE #1210

**REQUIRED PROGRAM**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>BUS 8</td>
<td>Business Communications</td>
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<tr>
<td>BUS 41</td>
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<td>1.5</td>
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<td>BUS 42</td>
<td>Keyboard Formatting</td>
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<tr>
<td>BUS 52</td>
<td>Office Procedures</td>
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<td>BUS 98</td>
<td>Work Experience</td>
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<tr>
<td>CIS 11A</td>
<td>Beginning Wordprocessing</td>
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<tr>
<td>CIS 12A</td>
<td>Electronic Spreadsheets</td>
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<tr>
<td>CIS 13A</td>
<td>Database Management</td>
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TOTAL REQUIRED UNITS: 16 - 18

**CERTIFICATE**

Office Assistant, General Clerk

CODE #1376

**REQUIRED PROGRAM**

<table>
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<tr>
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<td>Electronic Calculators</td>
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<td>BUS 41</td>
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</tr>
<tr>
<td>BUS 98</td>
<td>Work Experience</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED: 15.5 - 17
8 BUSINESS COMMUNICATIONS 3 Units
Prerequisite: Eligibility for English 57 as determined by the assessment process.
Advisory: Business 50 and the ability to key 30 WAM.
Acceptable for credit: CSU
54 hours lecture
This course is designed to emphasize the use of communication theory in planning and composing various types of effective business letters and reports. The course stresses style, appearance, grammar, punctuation, tone, vocabulary and reader appeal. Interpersonal communication and listening, cross-cultural communication, electronic communication technology, and ethical and legal guidelines are included. A formal report with graphics is required.

10 ELECTRONIC CALCULATORS 2 Units
Prerequisite: None.
Acceptable for credit: CSU
27 hours lecture, 27 hours laboratory
This course emphasizes the ten-key touch system to develop a high level of speed and accuracy on electronic calculator and computer keyboards. Students will use electronic calculator and computer assignments to develop business mathematical skills and concepts.

14 CONCEPTS IN PERSONAL FINANCE 3 Units
Prerequisite: None (Not open to students who have received credit for Economics 14.)
Advisory: Business 60
Acceptable for credit: CSU
54 hours lecture
This course is designed to assist individuals in analyzing their financial affairs. Elements and conceptual basis of financial planning, analysis, and decision making in areas of budgeting, taxes, borrowing, money management, insurance, investments, and retirement will be examined with an emphasis on principles to develop students’ economic decision making. Students will be using mathematical concepts as well as reading and interpreting written and oral instructions. The course provides a solid base for a career in financial planning services.

15 MANAGING DIVERSITY IN THE WORKPLACE 3 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
This course examines the leadership skills and abilities needed to manage a multicultural workforce. A primary focus is placed upon the workplace impact of various historical, social, and cultural experiences/perspectives related to gender, age, ethnicity, and disability. Workforce issues related to the diversity of the American consumer and global consumer impact on the United States are analyzed.

16 LAW AND SOCIETY 3 Units
Prerequisite: None. (Not open to students who have received credit for Social Science 16.)
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture
This course is an introduction to the American legal system emphasizing the nature, purpose, sources and functioning of American law but including some comparative analysis of other historical and contemporary legal systems. It stresses the evolution of legal concepts as a reflection of the social environment and the role of the judiciary. A theoretical rather than practical viewpoint is used through analysis of selected cases and legislation in the areas of individualism, socioeconomic groups, the family, the economy, crime, criminal procedure and punishment, church and state separation, the environment, and torts. This course should not be taken in place of Business Law 18A when required.

18A BUSINESS LAW 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture
This course is an introductory coverage of the law in its relationship to the environment of business. The course covers the American legal system as an instrument of economic, social, and political control. It stresses basic business torts, crime and business, contracts and sales transactions, agency, legal structures of business, government regulation and property rights. For more detailed coverage of some of these topics, see Business Law 18B.
(CAN BUS 8)

18B BUSINESS LAW 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture
General introduction to the legal concepts and principles of real property and landlord/tenant; bankruptcy, consumer law, corporations, securities law and corporate social-ethical responsibility; labor employment law, environmental law, antitrust law and business-related constitutional law.

20 INTRODUCTION TO BUSINESS 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course provides a survey of all business areas, including Accounting, Law, Computer Information Science, Management, Marketing, Economics and Finance. The course is designed to be taken by all beginning students interested in business. It is a core requirement for business majors. This course provides an overview often very helpful in assisting students' selection of a specific career in the field of business.
41 INTRODUCTORY KEYBOARDING 1.5 Units
Prerequisite: None.
Advisory: CIS 90
Acceptable for credit: CSU
18 hours lecture, 27 hours laboratory
This course in introductory keyboarding emphasizes operating alphabetic, numeric, and symbol keys by touch. The course includes speed and accuracy development, keyboarding techniques, proofreading proficiency, and essential keyboarding information.

42 KEYBOARD FORMATTING 1.5 Units
Prerequisite: Business 41.
Acceptable for credit: CSU
18 hours lecture, 27 hours laboratory
This course is an intensive course which emphasizes application of the following formatting concepts: horizontal and vertical centering, business letter styles, memorandums, tables and reports. The course includes speed and accuracy development and proofreading proficiency.

43 KEYBOARD SPEED AND ACCURACY BUILDING 1.5 Units
Prerequisite: None.
Advisory: CIS 90 and Business 41
Acceptable for credit: CSU
18 hours lecture, 27 hours laboratory
This course stresses speed-and-accuracy keyboarding techniques. It includes skill assessment and individually prescribed improvement plans. The course may be taken concurrently with all keyboarding classes and may be taken twice for credit. Students will be reading and interpreting written and oral instructions.

46 TEACHER AIDE 1-4 Units
Prerequisite: None
Advisory: A grade of “B” or better in the course for which the student is going to be a teacher aide.
Acceptable for credit: CSU
9 hours lecture and 27 hours laboratory equals one (1) unit
This course is designed for students who want an in-depth understanding of the fundamentals of Accounting, Business, Computer Information Science, Finance, Management, Office Administration, or related fields. This course will allow the student to work with individual or small groups of students. It may be taken four times for credit for a maximum of 8 units.

47 INDIVIDUALIZED PROJECTS IN BUSINESS 1-4 Units
Prerequisite: At least two semesters of successful work leading to an Associate Degree or Certificate in Accounting, Business, Computer Information Science, Finance, Management, Marketing, Office Administration or other related field.
Acceptable for credit: CSU
0-54 hours lecture, 0-108 hours laboratory.
This course is designed to help the student focus skills previously learned in an area of business. The student, with the help of the instructor, will produce a project that utilizes a variety of skills. The student will describe a problem, plan a process to arrive at a solution, work with the instructor to secure those resources necessary to complete the project, submit progress reports on a regular basis, and present a finished product. This class may be required for some degrees or certificates.

47D HONORS SEMINARS IN BUSINESS 1 Unit
Prerequisite: Admission to Honors Program
Acceptable for credit: CSU
18 hours lecture
Honors students will confront advanced topics in the area of Business and will be expected to do work that will both inform them about the subject and increase powers of analysis and critical thinking/critical writing.
(See Honors - catalog pages 20-21).

49 SPECIAL STUDIES IN BUSINESS 1-3 Units
(See page 21)
Acceptable for credit: CSU

50 BUSINESS ENGLISH 3 Units
Prerequisite: Eligibility for English 256 as determined by the assessment process.
Advisory: Ability to key 30 WAM
54 hours lecture
This course is designed to prepare the student for Business Communications. The course presents principles of correct and effective English usage as applied in business. Included are skills and techniques of written communication, sentence structure, word usage, punctuation, spelling, and dictionary usage. Emphasis is placed on critical thinking and effective writing techniques through analyzing written communication and composing and organizing paragraphs into effective business documents. Proofreading skills are stressed throughout the course.
52 OFFICE PROCEDURES 3 Units
Prerequisite: None.
Advisory: Business 41, Business 42 or ability to key 30 WAM; and Business 50
36 hours lecture, 54 hours laboratory
This course develops skills associated with the office professional, including specialized procedures in electronic offices. Specific topics include public relations; time management; correspondence and report composition; records management; telecommunications; meeting and conference planning; making travel arrangements and preparing itineraries; distribution using mailing and shipping services; and office reprographics. The course emphasizes developing the office team through effective communications, dependability, interpreting various management responsibilities, and motivational techniques. Recommended for all management information science and office professional students.

60 BUSINESS MATHEMATICS 3 Units
Prerequisite: None.
54 hours lecture
This course is a review of basic mathematical skills and introduces equations and formulas in solving for unknowns. Applications of mathematics in business include such areas as banking, commercial discounts, retail and wholesale markup-markdown, payroll computations, simple and compound interest, bank discount, present value, taxes, insurance, depreciation, and financial statements. Recommended for every major in business.

67 MACHINE TRANSCRIPTION 1-2 Units
Prerequisites: Ability to type 45 WAM on a five-minute timed test. Concurrent enrollment in (or successful completion of) Business 50.
0-18 hours lecture, 0-54 hours laboratory
Emphasizes transcription of various documents into mailable form from pre-recorded tapes, stressing quality of production and transcription speed development. Includes a review of document placement, formats, and styles, as well as punctuation, spelling, vocabulary building, proofreading, and English grammar. Students proofread, edit, and make necessary changes to produce mailable documents. Units earned based on modules completed.

70 SMALL BUSINESS MANAGEMENT/ENTREPRENEURSHIP 3 Units
Prerequisite: None.
54 hours lecture
The class will introduce the basic elements of starting and operating a small business. Students will be introduced to such topics as developing a business plan, finding financial resources, meeting legal requirements, developing management techniques, understanding marketing concepts, and other topics of interest to the small business entrepreneur.

71A THE BUSINESS PLAN 1 Unit
Prerequisite: None.
18 hours lecture
This course offers an organized, step-by-step approach to preparing a business plan. The plan will enable the students to solve problems "on paper" before they become operational or money problems. Every business should have a business plan. Students will create one in this course. Business 70 is recommended.

71B MARKETING FOR SMALL BUSINESS 1 Unit
Prerequisite: None.
18 hours lecture
This course emphasizes how a small business or non-profit organization can market its service or product to the consumer. The student will learn about ways to improve market mix, identify target markets, and develop a marketing plan. Business 70 is recommended.

71C FINANCING A SMALL BUSINESS 1 Unit
Prerequisite: None.
18 hours lecture
This course covers sources and ways of raising capital for small businesses. How much money is needed and where it can be obtained, start-up costs, and projecting monthly and yearly costs are the focus of this course. Financial ratios and key financial statements are covered. Business 70 is recommended.

71D ESSENTIAL RECORDS FOR SMALL BUSINESS 1 Unit
Prerequisite: None.
18 hours lecture
This course emphasizes the various types of records that small businesses must keep. The focus will be upon financial, employment, and tax records. Simple, easy-to-use recordkeeping systems will be covered. Business 70 is recommended.

71E MANAGEMENT SKILLS FOR THE SMALL BUSINESS 1 Unit
Prerequisite: None.
18 hours lecture
A small business owner must understand and motivate others to help the business reach its objectives. This course covers such functions as planning and organizing work flow, delegating responsibilities, understanding leadership styles, decision making, stress and time management, and working with employee organizations. Business 70 is recommended.

71F RETAILING AND MERCHANDISING FOR SMALL BUSINESS 1 Unit
Prerequisite: None.
18 hours lecture
This course will emphasize retailing concepts, such as inventory control and turnover rates, selecting merchandise sources, using trade and cash discounts, pricing, markup and markdown, and shrinkage control. Students will also learn how to develop a merchandising plan, inventory control system, and assess consumer behavior and demographics. Business 70 is recommended.
71G GOING INTERNATIONAL 1 Unit
Prerequisite: None.
18 hours lecture
This intensive course overviews the following topics for the
small business entrepreneur who is considering going interna-
tional: the international business environment, strategic
considerations, and managing in a multinational environment.

71-I CUSTOMER SERVICE 1 Unit
Prerequisite: None.
18 hours lecture
This course is a study of the principles involved in building
an effective customer service team. Customer service
activities in business, government, and other service indus-
tries will be examined in terms of the value added to the
organization. Improved customer services will be empha-
sized.

71M QUICKBOOKS® FOR SMALL BUSINESS 1 Unit
Prerequisite: None.
18 hours lecture
This class will emphasize the use of QuickBooks® for
Windows to aid the small business operator in creating
financial statements and other financial reports. The system is
computer based and presented in a user friendly method.

82 SKILLS FOR TODAY'S OFFICE 1 Unit
Prerequisite: None
Advisory: Business 41 or Keyboarding Certificate for 25
WAM or better, and CIS 11A and CIS 12A
18 hours lecture, 18 hours laboratory
This is a course designed to build upon previous
wordprocessing and spreadsheet training in the computer
science/business area, and complete the training necessary to
perform effectively and become a skilled employee in the
modern, computerized office. The course includes preparing
and processing information: wordprocessing, spreadsheet,
and database documents; communicating via fax, e-mail,
voicemail, Internet, and telephone; and using copiers and
other office equipment. Students will simulate office situa-
tions. This course emphasizes activities and techniques that
enhance competencies needed in today's office.

85A INTRODUCTION TO INSURANCE: LIFE AGENTS 3 Units
Prerequisite: None.
54 hours lecture
This introductory course gives an overview of the insurance
industry with specific coverage in risk and risk management,
structure of the insurance industry, legal concerns, life,
health disability, income, and ethics. Course content
satisfies State of California Life Agent requirements.

85B INTRODUCTION TO INSURANCE: FIRE AND CASUALTY 3 Units
Prerequisite: None.
54 hours lecture
This introductory course gives an overview of the insurance
industry with specific coverage in risk and risk management,
structure of the insurance industry, legal concerns, personal
fire and casualty, commercial property and casualty,
worker's compensation, health insurance, and ethics.
Course content satisfies State of California Fire and Casualty
examination requirements.

98 WORK EXPERIENCE IN BUSINESS 1-4 Units
Acceptable for credit: CSU - See Counselor
(See page 22)
Area of Science, Mathematics & Engineering

**Chemistry**

**DEGREE** A.A.—Science and Mathematics (see Science . . page 258)

The Chemistry Program at CRC consists of:

- A series of chemistry courses designed to meet transfer requirements for physical and biological science majors
- A series of courses intended for students majoring in fields other than chemistry, biology, or physical science
- A course designed specifically for students who require preparation or review of the more basic chemical concepts

All chemistry courses at CRC include a practical component where students conduct hands-on chemical experimentation in a modern, well-equipped laboratory.

**Career Options**
- Chemist; Pharmacist; Chemical Engineer;
- Physician; Dentist; Veterinarian; Allied Health Professional; Biologist; Physicist;
- Geologist; Geochemist; Oceanographer

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

**Highlights**
- An outstanding chemistry faculty striving to maintain an aggressive and well-respected chemistry program
- Ample contact with the instructor and the relaxed atmosphere that only a limited class size can offer
- A Mathematics, Engineering and Science Achievement (MESA) program

A locker deposit is required to participate in all chemistry classes that include laboratory. The deposit is payable at the Business Office prior to the third class meeting. The fee is refundable if there is no breakage and the locker is checked in at the end of the semester. If chemical glassware is broken or missing, the charge will be deducted from the deposit.

**1A GENERAL CHEMISTRY** 5 Units

Prerequisites: Chemistry 51 or high school chemistry laboratory/lecture course with a grade of "C" or better; AND Mathematics 51 or one year of high school algebra.

Acceptable for credit: CSU, UC — See Counselor

54 hours lecture, 108 hours laboratory

The course stresses fundamental laws and concepts of chemistry. The relationship of chemical behavior to atomic, molecular, and ionic structure is emphasized. Topics include the principles and applications of stoichiometry, thermodynamics, quantum theory, chemical bonding, physical properties of solids, liquids, and gases, and the chemical and physical properties of solutions. The course is recommended for those students majoring in science, medicine, and related programs of study.

(CAN CHEM 2) (CHEM 1A + 1B = CAN CHEM SEQ A)

**1B GENERAL CHEMISTRY** 5 Units

Prerequisite: Chemistry 1A with a grade of "C" or better

Acceptable for credit: CSU, UC — See Counselor

54 hours lecture, 108 hours laboratory

This course is a continuation of the two-semester series in general college chemistry. Topics presented in the course include kinetics, equilibrium, acid/base chemistry, thermodynamics, electrochemistry, radiochemistry, coordination chemistry, and an introduction to organic chemistry. Laboratory exercises include qualitative and quantitative analysis techniques. (CAN CHEM 4)

(CHEM 2A + 2B = CAN CHEM SEQ A)
2A  INTRODUCTION TO CHEMISTRY  4 Units
Prerequisite: Math 51
Acceptable for credit:  CSU, UC — See Counselor
54 hours lecture, 54 hours laboratory
This is a general chemistry course intended for students
majoring in the allied health fields, such as nursing, physical
therapy, dental hygiene, veterinary technology, and environ-
mental technology.  This course emphasizes the fundamental
principles of chemistry: types of matter, physical and chemical
processes, atomic and molecular structure, stoichiometry,
properties and theories of gases, properties of solutions, acids
and bases, equilibria, and an introduction to organic functional
groups as they pertain to medicine or biological systems.  (CAN
CHEM 6) (with 2B = CAN CHEM SEQ B)

2B  INTRODUCTION TO CHEMISTRY  4 Units
Prerequisite: Chemistry 2A with a grade of "C" or better
Acceptable for credit:  CSU, UC — See Counselor
54 hours lecture, 54 hours laboratory
The organic chemistry portion of this course emphasizes the
major classes of organic compounds: their structure, physical
and chemical properties related to biological systems, and
nomenclature.  Some clinical and pharmacological aspects
are also discussed.  The biochemistry portion of this course
emphasizes the structure and function of carbohydrates,
proteins, and lipids in biological systems.  Topics include
enzymes, catabolic and anabolic pathways, nucleic acids,
and protein synthesis.  (CAN CHEM 8) (with 2A = CAN CHEM SEQ B)

5  QUANTITATIVE ANALYSIS  5 Units
Prerequisite: Chemistry 1B with a grade of "C" or better
Acceptable for credit:  CSU, UC
54 hours lecture, 108 hours laboratory
This course focuses on the principles and techniques involved
in fundamental gravimetric and volumetric analyses and
separation techniques including methods of data analysis,
precipitation, acid/base neutralization, complex formation,
oxidation-reduction, spectroscopy and chromatography.  Also
included is an introduction to modern instrumental analytical
procedures with emphasis on optical, electrochemical and
chromatographic techniques.  Emphasis throughout the course
will be on sampling, calibration and method validation
procedures.  (CAN CHEM 12)

7L  ENVIRONMENTAL CHEMISTRY LABORATORY  1 Unit
Prerequisite: Completion of or concurrent enrollment in
Chemistry 7.
Acceptable for credit:  CSU
54 hours laboratory
This course provides "hands-on" opportunities for students to
collect and analyze data about chemicals found in the
environment.  Students will learn how to collect and analyze
doors, water and air samples for environmental quality param-
eters and the presence of pollutants.  Analysis of samples will
involve the use of readily available field test equipment.  Field
trips for sample collection will take place during laboratory
periods or at arranged times.  There may also be field trips to
environmental analytical laboratories.

11  THE CHEMISTRY OF NATURAL PRODUCTS  4 Units
Prerequisite: None
Acceptable for credit:  CSU
54 hours lecture, 54 hours laboratory
This course covers an examination of economically important
chemicals obtained from natural sources, with special emphasis
on the essential oils of aromatic plants.  Topics include the basic
principles of organic chemistry; the structural classification of
natural products; the stereochemical perception of aroma and
flavor; the extraction, chemistry, and quality control of botanical
essential oils; and the active-component phytochemicals of
selected medicinal plants.  Practical laboratory exercises
(including essential oil distillation, phytochemical extraction
and preparation of herbal balms, creams, soaps, and personal
fragrances) will support the lecture portion of the course.

12A  ORGANIC CHEMISTRY  5 Units
Prerequisite: Chemistry 1B with a grade of "C" or better
Acceptable for credit:  CSU, UC
54 hours lecture, 108 hours laboratory
This course surveys the principles of organic chemistry intended
for chemistry and biological science majors or those students
interested in the medical and related professions.  Units covered
include an in-depth study of the physical and chemical
properties of organic compounds with emphasis on molecular
structure, reactivity, and organic synthesis.

12B  ORGANIC CHEMISTRY  5 Units
Prerequisite: Chemistry 12A with a grade of "C" or better
Acceptable for credit:  CSU, UC
54 hours lecture, 108 hours laboratory
This course is a continuation of Chemistry 12A.  Units covered
include an in-depth study of the physical and chemical
properties of aromatic compounds, aldehydes, ketones, amines,
carboxylic acids and its derivatives.  A special emphasis is
placed on structural analysis/elucidation of these compounds by
the various spectrophotometric techniques.  In addition, an introduc-
tion to pericyclic reactions and biomolecules is presented.

By the completion of this course, students will have acquired
skills and techniques that can be utilized to examine environ-
mental problems and their proposed solutions.
46  TEACHER AIDE 1 - 4 Units

Prerequisite: A grade of "B" or better in the course for which the student is going to be a teacher aide, or recommendation of instructor.
Acceptable for credit: CSU
9 hours lecture and 27 hours in-class tutoring equals one (1) unit of credit
This course is designed for students who want to develop an in-depth understanding of chemistry fundamentals. The teacher aide will learn to work with individual students and groups of students. Chemistry 46 is open entry and exit and may be taken two times for credit for a maximum of 6 units.

49  SPECIAL STUDIES IN CHEMISTRY 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU, UC — See Counselor

51  BEGINNING CHEMISTRY 4 Units
Prerequisite: Math 51 with a grade of "C" or better. Concurrent enrollment in or completion of Math 53 recommended.
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
This course covers an introduction to fundamental chemical concepts, problem-solving and laboratory skills. Chemistry 51 is designed for students needing a comprehensive review of or intensive preparation in chemistry. This course is primarily intended to prepare students for Chemistry 1A.
Area of Communication, Visual & Performing Arts

Communications Media

AREAS OF STUDY

Advertising / Public Relations . . . page 47
Broadcast Journalism . . . page 70
Film and Media Studies . . . page 156
Journalism . . . page 206
Photography . . . page 236
Radio Production . . . page 254
Speech Communication . . . page 265
Telecommunications Technology . . . page 269
Television Production . . . page 271

This instructional program is designed to train students for skills needed in jobs requiring basic knowledge of communications media. Training includes classes in radio and television broadcasting, photography, cinematography, broadcast and print journalism, speech, multimedia production and design, and telecommunications. Students will be prepared for entry-level jobs in education, government, broadcasting, advertising and public relations, as well as having a base for transfer to a four-year institution.

The Communications Media program consists of a core curriculum with options in specific areas of interest. Knowledge of keyboarding is recommended.

The Associate of Arts Degree can be obtained upon completion of a total of 60 units, including a 31-unit major, general education requirements and electives as needed.

Career Options

See the corresponding pages for the specific career options in each of the above fields of study.

Communications Media

5 MASS MEDIA AND SOCIETY 3 Units
Prerequisite: None. (Not open to students who have received credit for Journalism 10.)
Acceptable for credit: CSU, UC — See Counselor
54 hours lecture
Survey of the mass media: history, philosophy, structure and trends, as well as theories which help to explain effects and the importance as a social institution. Exploration of economics, technology, law, ethics, and social issues, including cultural and ethnic diversity.
(CAN JOUR 4)
14 THE HISTORY OF FILM 3 Units
Prerequisite: None. (Not open to students who have received credit for Photography 14.)
Acceptable for credit: CSU, UC — See Counselor
54 hours lecture
An introduction to the art of motion pictures, using both lectures and films. Students will briefly study the history of motion pictures and will view, evaluate, and critique films which are landmarks in the art of movie making.

26 HISTORY OF AMERICAN RADIO 1 Unit 1920-1950
Prerequisite: None.
Acceptable for credit: CSU
18 hours lecture
An introductory study of radio as a cultural medium in American society from the 1920's to the 1950's. Examples from popular programs in comedy, news, sports, mystery and adventure, serials, music and drama are included.

46 TEACHER AIDE 1-4 Units
Prerequisite: None
Advisory: Grade of "B" or better in the course for which the student is going to be a teacher aide, or equivalent
Acceptable for credit: CSU
9-36 hours lecture, 27-108 hours laboratory
This course is for students who want to develop an in-depth understanding of the fundamentals of communication media production and who want to work with individual students and small groups of students. This course may be taken twice for credit.

49 SPECIAL STUDIES IN 1-3 Units
COMMUNICATIONS MEDIA
(See catalog p. 21)
Acceptable for credit: CSU

50A PERSPECTIVES IN .5 Unit
TELECOMMUNICATIONS: INTRODUCTION TO TELECOMMUNICATIONS
Prerequisite: None
9 hours lecture
This is the first module of a basic course in telecommunications. Topics covered include history and importance of telecommunications, as well as elements of a telecommunications system.

50B PERSPECTIVES IN .5 Unit
TELECOMMUNICATIONS: TELECOMMUNICATIONS CONCEPTS
Prerequisite: None
9 hours lecture
This is the second module of a basic course in telecommunications. Topics covered include requirements for communications systems, telecommunications technology, and telecommunications applications.

50C PERSPECTIVES IN .5 Unit
TELECOMMUNICATIONS: TELEPHONE COMMUNICATION HARDWARE
Prerequisite: None
9 hours lecture
This is the third module of a basic course in telecommunications. Topics covered include telecommunications hardware including, but not limited to, telegraph, telephone, pagers, facsimile, and PBX.

50D PERSPECTIVES IN .5 Unit
TELECOMMUNICATIONS: THE TELECOMMUNICATIONS INDUSTRY
Prerequisite: None
9 hours lecture
This is the fourth module of a basic course in telecommunications. Topics covered include common carriers, Bell operating company, long distance, international, and value-added networks.

50E PERSPECTIVES IN .5 Unit
TELECOMMUNICATIONS: TELECOMMUNICATIONS REGULATIONS & POLICIES
Prerequisite: None
9 hours lecture
This is the fifth module of a basic course in telecommunications. Topics covered include Federal Communication Commission and public utilities commission history and responsibilities, along with landmark regulatory and policy decisions.

50F PERSPECTIVES IN .5 Unit
TELECOMMUNICATIONS: SOCIAL AND ORGANIZATIONAL IMPACTS
Prerequisite: None
9 hours lecture
This is the sixth module of a basic course in telecommunications. Topics covered include an overview of social impacts, expectations, and acceptance of telecommunications, as well as the future of telecommunications.

51A TELECOMMUNICATIONS .5 Unit
MANAGEMENT AND MARKETING: BUSINESS OPERATIONS
Prerequisite: None
9 hours lecture
This course provides an overview of the management, operations, finance, and accounting functions basic to a telecommunications organization. Additional detailed studies may be necessary in each area to meet higher levels of need.

51B TELECOMMUNICATIONS .5 Unit
MANAGEMENT AND MARKETING: HUMAN RESOURCES
Prerequisite: None
9 hours lecture
Setting up the organization, its people, and philosophy are covered in this unit. Emphasis is on creating a working relationship within the organization. Rules, regulations, and policies will be examined along with work assignments.
51C TELECOMMUNICATIONS MANAGEMENT AND MARKETING: VENDOR/ CARRIER INTERACTION
Prerequisite: None
9 hours lecture
Contracting with outside vendors for services and to provide services to others will be reviewed. Selection, evaluation, and negotiation will be developed as business tools to help in this area. Proposal development and response is covered briefly.

51D TELECOMMUNICATIONS MANAGEMENT AND MARKETING: COMMUNICATIONS SKILLS
Prerequisite: None
9 hours lecture
Management communications skills through public speaking, public relations with media and staff and other publics will be discussed. Special emphasis will be placed on strategic planning critical to an organization's success. A variety of verbal and nonverbal techniques will be presented.

51E TELECOMMUNICATIONS MANAGEMENT AND MARKETING: CUSTOMER SERVICE
Prerequisite: None
9 hours lecture
Customer satisfaction, so critical to a company's success, will be addressed. Emphasis will be placed on use of automated devices, policy and procedure implementation, and personal decision-making models that address customer needs and satisfaction.

51F TELECOMMUNICATIONS MANAGEMENT AND MARKETING: MARKETING AND SALES
Prerequisite: None
9 hours lecture
The skills necessary to segment the market, target a specific group, reach that market, and successfully satisfy customer needs will be presented. Emphasis will be placed on strategies to retain current customers while obtaining new accounts.

52A TELECOMMUNICATIONS NETWORKS: NETWORK MANAGEMENT
Prerequisite: None
9 hours lecture
This module provides an overview to telecommunications management that includes the administration and control of networks, human factors, network diagnostics, network performance monitoring tools and maintenance.

52B TELECOMMUNICATIONS NETWORKS: LAN and MAN NETWORK
Prerequisite: None
9 hours lecture
This module provides an introduction to the different types of telecommunications networks. Additional detailed studies will include the implementation of a modified local area network, discussion of architecture and technologies, network protocols and theories.

52C TELECOMMUNICATIONS NETWORKS: WAN NETWORKS
Prerequisite: None
9 hours lecture
This module provides an in-depth analysis of wide area networks. Included will be the concepts of multi-plexing, current WAN technology, carrier services available, standards, switching methodologies and the interrelationships of components of a wide area network.

52D TELECOMMUNICATIONS NETWORKS: VOICE NETWORKS
Prerequisite: None
9 hours lecture
This module introduces the concepts of voice transmission, digitization and compression; data and voice integration. Current voice related technology will be discussed, as well as different network transport methodologies, common carriers and future needs.

52E TELECOMMUNICATIONS NETWORKS: OPERATING SYSTEMS
Prerequisite: None
9 hours lecture
This module provides the student with the history and related data regarding the various network operating systems available for mainframe and micro-computer systems, their design characteristics, limitations and performance requirements.

52F TELECOMMUNICATIONS NETWORKS: APPLICATION USES
Prerequisite: None
9 hours lecture
This module introduces network programs and applications that allows for practical experience using them. Included will be the review of hardware and software necessary for online telecommunications. The students should have a basic understanding of computers, including hardware, software and operating systems.

53 TELECOMMUNICATIONS TECHNOLOGY 3 Units
Prerequisite: None
54 hours lecture
This course provides an introduction to the field of telecommunications. An in-depth understanding of voice and data communications terminology, basic hardware components, telephone services, and an overview of local and wide area networks, use of the Internet and current telecommunications trends and issues.

53A TELECOMMUNICATIONS TECHNOLOGY: INTRODUCTION TO NETWORKS
Prerequisite: None
9 hours lecture
This course is an introduction to networks. It covers an overview of network engineering, purpose of networks, basic network technologies and architectures, network communication protocols and network hardware.
53B TELECOMMUNICATIONS .5 Unit
TECHNOLOGY:
BASIC COMMUNICATIONS CONCEPTS
Prerequisite: None
9 hours lecture
This course is an introduction to basic communications concepts. It covers an overview of transmission media, modems, analog and digital circuits, multiplexers, wired and wireless transmission media, broadband and baseband services, topologies, circuit and packet switched networks.

53C TELECOMMUNICATIONS .5 Unit
TECHNOLOGY:
LOCAL AREA NETWORKS (LANs)
Prerequisite: None
9 hours lecture
This course is an introduction to Local Area Networks (LANs). It also provides an overview of LAN hardware and topologies. LAN connectivity, inter-networking, dial-up services, communication servers, routers, protocols, LAN management, network architectures and the impact of applicable laws.

53D TELECOMMUNICATIONS .5 Unit
TECHNOLOGY:
WIDE AREA NETWORKS (WANs)
Prerequisite: None
9 hours lecture
This course is an introduction to Wide Area Networks (WANs). The course provides an overview of WAN hardware and technology, circuit and packet switching, transmission architecture, service providers, TCP/IP, Internet access, Internet components and the future of Internet.

53E TELECOMMUNICATIONS .5 Unit
TECHNOLOGY:
TELECOMMUNICATIONS EQUIPMENT AND SERVICES
Prerequisite: None
9 hours lecture
This course is an introduction to Telecommunications Equipment and Services. The course provides an overview of voice systems, services and networks. Also provides information on CENTREX services and systems.

53F TELECOMMUNICATIONS .5 Unit
TECHNOLOGY:
BUSINESS CONSIDERATIONS, CURRENT ISSUES & FUTURE TRENDS
Prerequisite: None
9 hours lecture
This course presents information on business considerations, current issues and future trends in the telecommunications industry. Included will be information on the impact of telecommunications; telecommunications project management, and the state of the data and voice communications industry.

54 BASIC FILM/VIDEO 3 Units
CAMERA TECHNIQUES
Prerequisite: None
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course teaches techniques of single camera shooting with film and videotape for business, cable or broadcast uses. Students learn basic information regarding cameras, lighting, graphics, composition, editing, and single and two-channel audio systems.

55 ADVANCED TELECOMMUNICATIONS 3 Units
NETWORKS
Prerequisite: None
54 hours lecture
This is a project-oriented course that focuses on local, metropolitan, and wide-area networks. The course emphasizes fundamentals topics concerning the characteristics, utilization, comparison and architecture of networks. Course building blocks include the OSI Reference Model, which is the international standard for describing network architecture.

55A ADVANCED TELECOMMUNICATIONS 1 Unit
NETWORKS: LOCAL AND METROPOLITAN AREA NETWORKS
Prerequisite: None
18 hours lecture
This is the first module of a project-oriented course that focuses on local, metropolitan, and wide-area networks. This module covers an introduction to LANs, MANs, and WANs, including data communications and computer networking, topologies and transmission media, network interfacing, and Internet working. The project design is covered in this module.

55B ADVANCED TELECOMMUNICATIONS 1 Unit
NETWORKS: NETWORK ARCHITECTURES
Prerequisite: None
18 hours lecture
This is the second module of a project-oriented course that focuses on local, metropolitan, and wide-area networks. This module covers network architectures, including an overview of physical layer, data link layer, network layer, transport layer, session layer, and application layer. In addition, voice-grade channel capacities, IEEE standards, and TCP/IP architecture are discussed.

55C ADVANCED TELECOMMUNICATIONS 1 Unit
NETWORKS: WIDE AREA NETWORKS
Prerequisite: None
18 hours lecture
This is the third module of a project-oriented course that focuses on local, metropolitan, and wide-area networks. This module covers fiber optics, cell networking, asynchronous transfer mode, wide area cell networking, and Internet working protocols. Team projects are designed and presented as a part of this module.
56 RADIO STUDIO OPERATIONS 3 Units
Prerequisite: None.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
Theory and operation of audio broadcast equipment and control room. Must be taken prior to Radio Workshop.

57 TELECOMMUNICATIONS INTEGRATION 3 Units
Prerequisite: None
54 hours lecture
This course covers principles of data and voice integration. Theory and application of Integrated Services Digital Network (ISDN), teleconferencing, multimedia, and computer integrated telecommunications will be emphasized. In addition, contemporary issues will be addressed.

57A TELECOMMUNICATIONS INTEGRATION: ISDN 1 Unit
Prerequisite: None
18 hours lecture
This is the first module of a course that covers the principles of data and voice integration. This module covers the theory and application of ISDN.

57B TELECOMMUNICATIONS INTEGRATION: TELECONFERENCING .5 Unit
Prerequisite: None
9 hours lecture
This is the second module of a course that covers principles of data and voice integration. This module covers theory and application of teleconferencing.

57C TELECOMMUNICATIONS INTEGRATION: COMPUTER-TECHNOLOGY INTEGRATION (CTI) .5 Unit
Prerequisite: None
9 hours lecture
This course is the third module of a course that covers principles of data and voice integration. This module covers Computer-Technology Integration (CTI) including future trends of voice/data integration.

57D TELECOMMUNICATIONS INTEGRATION: MULTIMEDIA .5 Unit
Prerequisite: None
9 hours lecture
This is the fourth module in a course that covers principles of data and voice integration. This module covers the theory and application of multimedia, including future issues.

57E TELECOMMUNICATIONS INTEGRATION: CONTEMPORARY ISSUES .5 Unit
Prerequisite: None
9 hours lecture
This is the last module of a course that covers principles of data and voice integration. This module covers contemporary issues including Personal Communications Services and telecommuting.

58 TELECOMMUNICATIONS NETWORK MANAGEMENT 3 Units
Prerequisite: None
54 hours lecture
This course provides an in-depth look at telecommunications network management. Emphasis is placed on understanding the job requirements for a Telecommunications Manager, Telecommunications Technician, and LAN Systems Administrator. Students will acquire experience through the analysis of a case study in developing a business technology model for a hypothetical company.

58A TELECOMMUNICATIONS NETWORK MANAGEMENT: OVERVIEW .5 Unit
Prerequisite: None
9 hours lecture
This course will introduce the student to telecommunications network technology and the infrastructure which forms today's telecommunications systems. Email systems, global networks, and computer conferencing will also be covered.

58B TELECOMMUNICATIONS NETWORK MANAGEMENT: OPERATIONS .5 Unit
Prerequisite: None
9 hours lecture
This course presents issues related to the operation of a computer network. Topics covered include developing a network requirements analysis, determining whether to use a proprietary or open system, monitoring the network, and security and performance management.

58C TELECOMMUNICATIONS NETWORK MANAGEMENT: NETWORK INTEGRATION .5 Unit
Prerequisite: None
9 hours lecture
This course deals with the integration of voice and data on communication channels. Topics covered include the Public Switched Telephone Network, Public Data Networks, Packet-Switched Networks, digital technology, and the transfer of sound, video and formatted data.

58D TELECOMMUNICATIONS NETWORK MANAGEMENT: INVENTORY & ADMINISTRATION .5 Unit
Prerequisite: None
9 hours lecture
This course deals with the management issues related to network accounting and charging users for network access. Topics covered include accounting models, tracking and controlling inventories, service agreements, and software distribution on a network.

58E TELECOMMUNICATIONS NETWORK MANAGEMENT: PLANNING & IMPLEMENTATION .5 Unit
Prerequisite: None
9 hours lecture
This course covers issues related to planning and implementing a network. The student will develop a pilot project taking into consideration scheduling details, installing nodes, training users, testing and problem resolution, securing information, updating the help desk, and recovering from disaster.
58F  TELECOMMUNICATIONS NETWORK .5 Units
MANAGEMENT: CONTEMPORARY ISSUES
Prerequisite: None
9 hours lecture
This course covers issues related to the development of a Request for Proposal for a telecommunications network for a business. Topics covered include auditing existing equipment, determining system requirements, creating the network model, developing the network specifications, and writing the Request for Proposal.

60  ADVERTISING  3 Units
Prerequisite: None. (Not open to students who have received credit for Marketing 26.)
54 hours lecture
Introduction to the field of advertising, its purposes, institutions and functions. Studies are made of the various methods, techniques and media used in general advertising.

62  INTRODUCTION TO  3 Units
TELECOMMUNICATIONS
Prerequisite: None.
54 hours lecture
This is a beginning course in the telecommunication technology program. Origin, development and functions of radio, television and merging technologies in modern society are presented. Terminology, concepts, and telecommunication services are covered. Required of communication majors.

63  BROADCAST WRITING & ANNOUNCING  3 Units
Prerequisite: None.
Advisory: Speech 1 or 7.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
Emphasis upon speaking and writing practice in fundamental techniques of broadcasting. Practice experiences with specific formats in television studio.

64  TELEVISION PRODUCTION  3 Units
Prerequisite: None.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
The theory and operation of a television control room. An introduction to the use of studio equipment - a switcher, character generator, audio mixer, videotape recorders, microphones and studio lighting. Real time camera movements. Special effects including chroma-key, mattes and wipes.

65  SPORTS BROADCASTING  3 Units
Prerequisite: None.
Acceptable for credit: CSU
18 hours lecture, 108 hours laboratory
Introduction to sports broadcasting. Special effects for sporting events, sports announcing, and technical production problems will each be examined and utilized in prerecorded and live television broadcast. This course may be repeated two times for credit.

66  INTRODUCTION TO RADIO WORKSHOP  3 Units
Prerequisite: None
Acceptable for credit: CSU
18 hours lecture, 54 hours laboratory, 54 hours to be arranged
Advanced radio production. Planning, producing and participating in original radio programs for broadcast over local or campus stations, using both the college and the community as subject matter. Practice in the techniques of live broadcasting. May be taken two times for credit.

70  INTRODUCTION TO MULTIMEDIA  3 Units
Prerequisite: None.
Advisory: CIS 1 or Journalism 1
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
A course to familiarize students with the ways of designing and producing multimedia presentations. Personal computers and audio-video technology are merged in order to take advantage of the special features of each. The course presents a description and history of computer-interactive multimedia. Students explore current uses of these technologies and receive instruction in practical application. Each student conceives, writes, and designs a high-level multimedia program, using a user-friendly system. Some applications for multimedia include: professional presentations, specialized instruction research, Internet web pages, job training, interactive newsletters, computer games and point-of-purchase marketing. (Students may take a combination of Comm. Media 70/CIS 70 a total of two times for credit.)

73  BROADCAST JOURNALISM  3 Units
Prerequisite: None.
Advisory: Communications Media 63, Journalism 20A, and ability to type.
36 hours lecture, 54 hours laboratory
The student will gain a general knowledge of the field of radio/television newswriting and production. Through theoretical and practical application, the student will understand writing, filming, editing, and broadcasting radio and television news.

74  ADVANCED TELEVISION PRODUCTION  2 Units
Prerequisite: Communications Media 64 with grade of "C" or better.
Acceptable for credit: CSU
108 hours laboratory
Students planning the total operational process for actual television programs (on air or closed-circuit), participate in and take responsibility for various aspects of the finished program, such as audio, switching, lighting, sets, graphics and film. May be taken two times for credit.

76  RADIO WORKSHOP  2 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours laboratory, 54 hours to be arranged
Advanced radio production. Planning, producing and participating in original radio programs for broadcast over local or campus stations, using both the college and the community as subject matter. Practice in the techniques of live broadcasting. May be taken two times for credit.
80  INTRODUCTION TO DESKTOP VIDEO  3 Units
(formerly Video Graphic Techniques)
Prerequisite: None.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This is an introductory course for students interested in multimedia, 3-D computer animation, and emerging broadcast technologies commonly known as desktop video. Students will gain hands-on experience with picture and video manipulation, 3-D compositing, paint and draw applications for broadcast, multimedia and the internet. This course may be taken twice for credit.

81  INTRODUCTION TO ANIMATION GRAPHICS
Prerequisite: None.
Advisory: Completion of or concurrent enrollment in Communications Media 80.
18 hours lecture, 108 hours laboratory

82  NON-LINEAR AUDIO AND VIDEO EDITING  3 Units
Prerequisite: None
Advisory: CIS 1 or Journalism 1 and Comm. Media 64 or 54
36 hours lecture, 54 hours laboratory
This course will trace the development of the computer audio/video applications including multimedia, nonlinear editing, computer graphics, computer animation and digital video. The last decade has ushered in a phenomenal convergence of capabilities among traditional audio/video production technology and personal computers. Major uses will be explored and future trends examined. In addition, students will receive hands-on production education and experience.

83  ACTING FOR THE CAMERA  3 Units
Prerequisite: Theatre Arts 15A or Communications Media 63. (Not open to students who have received credit for Theatre Arts 19.)
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
Introductory course in the theory and techniques of acting and techniques of acting for film and video, comparing the differences between stage acting and acting for the camera. Scenes and commercials enacted and played back on videotape for class critiquing.

84  VIDEO WORKSHOP  2 Units
Prerequisite: Communications Media 74.
Acceptable for credit: CSU
108 hours laboratory
Production of new types of programming for cable, business, industry and special groups - religious, ethnic, minorities, children, women. May be taken two times for credit.

85  CORPORATE VIDEO  3 Units
Prerequisite: None.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
Students will learn how to produce an effective corporate documentary, marketing or training presentation. The roles and relationships of the many players in the telecommunications industry are explored. Students gain experience in organizing, planning, allocating and directing resources. Instruction includes targeting an audience to get a desired response, designing the message, writing the script, shooting, editing and distribution. Students learn about managing complex interrelationships, managing technology in an environment which mix and match vendors, standards, applications and unique customer requirements.

86  AUTOMATED RADIO  3 Units
Prerequisite: None.
Advisory: Communications Media 56, Speech 1 or 7
18 hours lecture, 108 hours laboratory
This course examines background and techniques used in modern automated radio systems for radio broadcasting, including announcing, music formats, traffic, sales, and management in relation to an automated facility. Students will study the operation of equipment and corrections of its malfunctions.

87  INTRODUCTION TO TELECONFERENCING  3 Units
Prerequisite: None.
36 hours lecture, 54 hours laboratory
This course examines the basics of satellite conference planning including program design and development, marketing and promotion, budgeting, site selection, audio/visual technology, public relations and program evaluation. Students will design, promote, and execute a video teleconference for cable television. Major uses will be explored and future trends examined. Students will learn how government, corporate and educational groups reach larger audiences with minimum cost through satellite technology.

90  VIDEO AND AUDIO TECHNIQUES  1 Unit
Prerequisite: None.
Acceptable for credit: CSU
54 hours laboratory
A short-term course designed to enable students to gain skills in operation and use of video and audio equipment and techniques. Course is useful for broadcast and cable television. Some of the topics that may be scheduled include: Video Performance Techniques, Audio Performance Techniques, Video Single Camera Shooting, Televisoid Studio Use and Terminology, Audio Recording and Editing and Writing for Video.

91  PRODUCING YOUR CABLE TV PROGRAM  1 Unit
Prerequisite: None.
Acceptable for credit: CSU
54 hours laboratory
A short-term course designed to enable students to understand the operation and use of video and audio equipment and techniques. Techniques of scriptwriting for a five-minute production.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Acceptable for credit</th>
<th>Hours Laboratory</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>92A</td>
<td>SINGLE CAMERA TV PRODUCTION</td>
<td>1</td>
<td>None</td>
<td>CSU</td>
<td>54</td>
<td>A short-term course designed to enable students to understand the operation and use of video and audio equipment and techniques. Students will learn basic skills in lighting, audio, camera operation and shooting techniques.</td>
</tr>
<tr>
<td>92B</td>
<td>LIGHTING FOR VIDEO</td>
<td>1</td>
<td>None</td>
<td>CSU</td>
<td>54</td>
<td>A short-term course designed to enable students to understand how lighting enhances the operation and use of video and audio equipment and techniques. Students will learn basic skills in proper lighting and usage of lighting equipment.</td>
</tr>
<tr>
<td>93</td>
<td>VIDEOTAPE EDITING FOR CABLE TV</td>
<td>1</td>
<td>None</td>
<td>CSU</td>
<td>54</td>
<td>A short-term course designed to enable students to understand editing and how it relates to the operation and use of video and audio equipment and techniques. Simple editing and technical principles and techniques are taught.</td>
</tr>
<tr>
<td>94A</td>
<td>MULTIPLE CAMERA STUDIO PRODUCTION</td>
<td>1</td>
<td>None</td>
<td>CSU</td>
<td>54</td>
<td>A short-term course designed to enable students to gain skills in the operation and use of video and audio equipment and techniques for multiple camera studio production.</td>
</tr>
<tr>
<td>94B</td>
<td>TELEVISION PERFORMANCE TECHNIQUES</td>
<td>1</td>
<td>None</td>
<td>CSU</td>
<td>54</td>
<td>A short-term course designed to enable students to understand television performance and how it relates to the operational use of video and audio equipment and techniques. Performance in front of a TV camera, guidelines for appropriate dress and make-up are included.</td>
</tr>
<tr>
<td>94C</td>
<td>MULTIPLE CAMERA REMOTE TV PRODUCTION (TRUCK)</td>
<td>1</td>
<td>None</td>
<td>CSU</td>
<td>54</td>
<td>A short-term course designed to enable students to gain skills in the operation and use of multiple camera remote television production equipment and techniques. Remote preproduction planning skills and truck set-up and use are included.</td>
</tr>
<tr>
<td>94D</td>
<td>VIDEO ENGINEERING</td>
<td>1</td>
<td>None</td>
<td>CSU</td>
<td>54</td>
<td>A short-term course designed to enable students to understand the operation and use of video and audio engineering for cable television. Electrical theory and its applications to video technology and equipment safety and proper maintenance are taught.</td>
</tr>
<tr>
<td>95A</td>
<td>COMMUNITY RADIO PRODUCTION</td>
<td>1</td>
<td>None</td>
<td>CSU</td>
<td>54</td>
<td>A short-term course designed to enable students to understand community radio production as well as the operation and use of video and audio equipment and techniques. Basics of audio production for cablecasting are included.</td>
</tr>
<tr>
<td>95B</td>
<td>AUDIO FOR VIDEO</td>
<td>1</td>
<td>None</td>
<td>CSU</td>
<td>54</td>
<td>An introductory course in audio recording techniques as required for video projects. Instruction designed for persons interested in producing video programs for local cablecast.</td>
</tr>
<tr>
<td>95C</td>
<td>RADIO DRAMA</td>
<td>1</td>
<td>None</td>
<td>CSU</td>
<td>54</td>
<td>An introductory course in equipment and talent techniques required to properly produce dramatic radio programs. Instruction is designed for persons interested in producing video programs for local radio cablecast.</td>
</tr>
<tr>
<td>96</td>
<td>TELEVISION GRAPHICS</td>
<td>1</td>
<td>None</td>
<td>CSU</td>
<td>54</td>
<td>An introductory course in the elements of graphic design for television, such as ratio, color, safe area, and materials.</td>
</tr>
<tr>
<td>98</td>
<td>WORK EXPERIENCE IN COMMUNICATIONS MEDIA</td>
<td>1-4</td>
<td>None</td>
<td>CSU</td>
<td>54</td>
<td>(See catalog p. 22) Acceptable for credit: CSU — See Counselor</td>
</tr>
</tbody>
</table>
Area of Business & Family Science

Computer Information Science

DEGREES
A.S.—Computer Programming
A.S.—Computer Information Science, Programming
A.S.—Mid-Size Computer Programmer
A.S.—Networking
A.S.—Network Systems Engineering
A.S.—Management Information Systems

CERTIFICATES
C.I.S. ~ Network Administration
C.I.S. ~ Network Technician
C.I.S. ~ Network Systems Administration
C.I.S. ~ Network Systems Engineering
C.I.S. ~ Programming Pascal
C.I.S. ~ Programming Visual BASIC
C.I.S. ~ Programming FORTRAN
C.I.S. ~ Programming "C/C++"
C.I.S. ~ Mid-Size Computer Programmer
C.I.S. ~ Mid-Size Computer Programmer, Comprehensive
C.I.S. ~ Internet Programming
Desktop Publishing
M.I.S. ~ Application Data Entry
M.I.S. ~ Information Processing
M.I.S. ~ Application Technician
M.I.S. ~ Application Analyst
M.I.S. ~ Application Manager
M.I.S. ~ Programming COBOL
Applications of Desktop GIS (Computer Science emphasis) - (see page 259)

Graduates of the degree program in Computer Information Science: Programming should expect to find employment as entry-level programmers in the computer industry. This new degree option was designed with industry leaders in the greater Sacramento area to address local employer needs.

Graduates of the degree program in Computer Information Science: Management Information Systems should expect to find entry-level employment as systems analysts or programmers in COBOL or RPG in government, business and industry, and/or acquire skills for applications in management or administration.

Our Networking program choices include Novell training at Folsom Lake Center and Windows training at the main campus.

Career Options
Computer Operator; Applications Software Specialist; Systems Analyst; Programmer; Data Entry Specialist; Computer Systems Specialist; Computer Technician; Network Administrator—Novell; Network Technician—Novell; Network Systems Engineering—Windows; Internet Technician

Highlights
Hands-on experience in a state-of-the-art computer center

Opportunities to work on specialized projects relating to computer information science, business and computer programming

Study in a field that has great employment opportunities and encompasses many careers

NOTE: See Flow Chart on last page of this section.
DEGREE
A.S.—Computer Information Science:
    Computer Programming
CODE #1066
This program is recommended for students planning to transfer to a CSU campus.

REQUIRED PROGRAM ......................................................... Units
BUS 41   Introductory Keyboarding or
    Keyboarding Certificate at 25 wam or better............... 0-1.5
MATH 9A   Analytic Geometry and Calculus ....................... 5
MATH 9B   Analytic Geometry and Calculus ....................... 5
MATH 11  Differential Equations .................................. 4
PHYS 4A  Mechanics of Solids and Fluids ....................... 4
PHYS 4B  Electricity and Magnetism ............................. 4
CIS 3   Introduction to Computer Information Science......... 3
CIS 32A  Introduction to Structured Programming ............ 4
CIS 35A  Assembly Language Programming on Microcomputer .......... 4
CIS 40  Data Structures .................................................. 4
CIS 31A  Structured Programming with Pascal ..................... 4
CIS 39  Object Oriented Programming (Delphi) .................... 4
CIS 40  Data Structures .................................................. 4
TOTAL UNITS REQUIRED ................................................ 48-49.5

Suggested Electives:

CERTIFICATE
Computer Information Science ~
Programming Pascal
CODE #1072
REQUIRED PROGRAM ......................................................... Units
Core Courses
BUS 8   Business Communications .................................... 3
BUS 41   Introductory Keyboarding or
    Keyboarding Certificate at 25 wam or better............... 0-1.5
CIS 3   Introduction to Computer Information Science......... 3
MATH 51  Elementary Algebra or
    MATH 51B  Elementary Algebra - Part II ..................... 2.5-5
CIS 14A  Operating Systems (Windows) .............................. 1
CIS 14B  Intermediate Operating Systems (Windows) ............ 1
CIS 341  Algorithm Development/Problem Solving .................. 3
Specialization in Pascal
CIS 31A  Structured Programming with Pascal ................... 4
CIS 39  Object Oriented Programming (Delphi) .................... 4
CIS 40  Data Structures .................................................. 4
TOTAL UNITS REQUIRED ................................................ 25.5-29.5

CERTIFICATE
Computer Information Science ~
Programming in Visual BASIC
CODE #1069
REQUIRED PROGRAM ......................................................... Units
Core Courses
BUS 8   Business Communications .................................... 3
BUS 41   Introductory Keyboarding or
    Keyboarding Certificate at 25 wam or better............... 0-1.5
CIS 3   Introduction to Computer Information Science......... 3
MATH 51  Elementary Algebra or
    MATH 51B  Elementary Algebra - Part II ..................... 2.5-5
CIS 14A  Operating Systems (Windows) .............................. 1
CIS 14B  Intermediate Operating Systems (Windows) ............ 1
CIS 341  Algorithm Development/Problem Solving .................. 3
Specialization in Visual BASIC
CIS 38  Programming in Visual BASIC .............................. 4
CIS 39  Object Oriented Programming ................................ 4
CIS 26  Scripting for Applications .................................... 3
TOTAL UNITS REQUIRED ................................................ 24.5-28.5

CERTIFICATE
Computer Information Science ~
Programming FORTRAN
CODE #1071
REQUIRED PROGRAM ......................................................... Units
Core Courses
BUS 8   Business Communications .................................... 3
BUS 41   Introductory Keyboarding or
    Keyboarding Certificate at 25 wam or better............... 0-1.5
CIS 3   Introduction to Computer Information Science......... 3
MATH 51  Elementary Algebra or
    MATH 51B  Elementary Algebra II ............................... 2.5-5
CIS 14A  Operating Systems (Windows) .............................. 1
CIS 14B  Intermediate Operating Systems (Windows) ............ 1
CIS 341  Algorithm Development/Problem Solving .................. 3
Specialization in FORTRAN
MATH 53  Intermediate Algebra ....................................... 5
CIS 33  FORTRAN Programming ........................................ 3
TOTAL UNITS REQUIRED ................................................ 21.5-25.5

CERTIFICATE
Computer Information Science ~
Programming in "C/ C++"
CODE #1070
REQUIRED PROGRAM ......................................................... Units
Core Courses
BUS 8   Business Communications .................................... 3
BUS 41   Introductory Keyboarding or
    Keyboarding Certificate at 25 wam or better............... 0-1.5
CIS 3   Introduction to Computer Information Science......... 3
MATH 51  Elementary Algebra or
    MATH 51B  Elementary Algebra - Part II ..................... 2.5-5
CIS 14A  Operating Systems (Windows) .............................. 1
CIS 14B  Intermediate Operating Systems (Windows) ............ 1
CIS 341  Algorithm Development/Problem Solving .................. 3
Specialization in C/C++
CIS 14A  Operating Systems (UNIX) ................................... 1
CIS 14B  Intermediate Operating Systems (UNIX) .................. 1
CIS 32A  Introduction to Structured Programming .................. 4
CIS 32B  Structured Programming with "C++" ........................ 4
CIS 40  Data Structures .................................................. 4
TOTAL UNITS REQUIRED ................................................ 27.5-31.5
CERTIFICATE  
Computer Information Science ~  
Internet Programming  
CODE #1942  

REQUIRED PROGRAM .............................................. Units  
Core Courses  
BUS 8 Business Communications ......................... 3  
BUS 41 Introductory Keyboarding or  
Keyboarding Certificate at 25 wpm or better .......... 0-1.5  
CIS 3 Introduction to Computer Information Science .... 3  
MATH 51 Elementary Algebra or  
MATH 51B Elementary Algebra - Part II ............. 2.5 - 5  
CIS 14A Operating Systems (Windows) ................. 1  
CIS 14B Intermediate Operating Systems (Windows) .. 1  
CIS 41 Algorithm Development/Problem Solving ....... 3  
Specialization in Internet Programming  
CIS 16A Introduction to Data Communications ........ 1  
CIS 16B Introduction to Local Area Networks ......... 1  
CIS 21A Introduction to the Internet .................. 1  
CIS 21B Web Page Design ................................. 1  
CIS 25 Scripting for the Internet ..................... 4  
CIS 39 Object Oriented Programming (Java) .......... 4  
TOTAL UNITS REQUIRED ........................................ 25.5-29.5  

DEGREE  
A.S.—Computer Information Science:  
Programming  
CODE #1326  
This program is recommended for students wishing to enter the  
workforce upon graduation. Some transfer opportunities are  
available to designated universities.  

REQUIRED PROGRAM .............................................. Units  
Semester 1  
BUS 8 Business Communications or  
ENGL 1A College Composition .......................... 3  
CIS 3 Introduction to Computer Information Science ... 3  
CIS 14A Operating Systems (Windows) .................. 1  
CIS 41 Algorithm Development/Problem Solving ....... 3  
BUS 41 Introductory Keyboarding or  
Keyboarding Certificate at 25 wpm or better .......... 0-1.5  
HIST 17 History of the United States (to 1865) or  
HIST 18 History of the United States or  
POL SCI 1 Intro. to Government: United States ....... 3  

Semester 2  
CIS 13A Database Management (Access) .................. 1  
CIS 32A Introduction to Structured Programming ....... 4  
CIS 38 Programming in Visual BASIC .................. 4  
CIS 14A Operating Systems (UNIX) .................... 1  
CIS 14B Intermediate Operating Systems (UNIX) ....... 1  
MATH 51 Elementary Algebra or  
MATH 51B Elementary Algebra Part II or  
higher level math course .................................... 2.5 - 5  

Semester 3  
CIS 351 Data Processing System Analysis and Design ... 4  
CIS 37 Database Programming (Oracle) .................. 3  
CIS 32B Structured Programming With "C++" ............ 4  
BUS 15 Managing Diversity in the Workplace .......... 3  
PHYSICS 10 Conceptual Physics or  
PHYS SCI 1 Introduction to Physical Science ........ 3-4  
PHYS EDUC .......................................................... 1-1.5  

Semester 4  
PHIL 5 Introduction to Ethics ............................ 3  
CIS 40 Data Structures ....................................... 4  
CIS 39 Object Oriented Programming or  
CIS 36A COBOL Programming or  
CIS 60 Network Administration or  
CIS 80 Network Systems Administration .............. 3  
SPEE 9 The Communication Experience or  
SPEE 15 Group Discussion ................................. 3  
TOTAL UNITS REQUIRED .................................. 57.5-64  

Plus: English 72 or reading competency by examination must be  
completed before graduation.  

General Education Graduation Requirements - See page 18.

DEGREE  
A.S.—Computer Information Science:  
Mid-Sized Computer Programmer  
CODE #1366  
One degree and two certificates were developed in conjunction  
with industry. This degree option provides employment  
opportunities as RPG or AS  
Systems programmers and is  
designed for full-time employees.  

REQUIRED PROGRAM .............................................. Units  
ACC 1A Financial Accounting or  
ACC 60 Fundamentals of College Accounting .......... 3-4*  
BUS 41 Introductory Keyboarding or  
Keyboarding Certificate at 25 wpm or better .......... 0-1.5*  
CIS 3 Introduction to Computer Information Science ... 3*  
CIS 13A Database Management .............................. 1  
CIS 13B Intermediate Database Management ............ 1  
CIS 14A Operating Systems (OS/400) ................. 1  
CIS 14B Intermediate Operating Systems (OS/400) .... 1  
CIS 37 Database Programming ........................... 3  
CIS 41 Algorithm Design/Problem Solving ............. 3  
CIS 42A RPG Programming ................................. 4  
CIS 42B Advanced RPG Programming .................... 4  
CIS 43 Introduction to Control Language ............... 4  
CIS 51 Data Processing System Analysis and Design ... 4  
Plus eight (8) units selected from ...................... 8  
CIS 36A COBOL Programming and  
CIS 36B Advanced COBOL Programming or  
CIS 32A Introduction to Structured Programming and  
CIS 39 Object Oriented Programming (Java)  
TOTAL UNITS REQUIRED .................................. 40-42.5  
*Apply toward five (5) units of general education

General Education Graduation Requirements - See page 18.
CERTIFICATE

Computer Information Science ~
Mid-Size Computer Programmer
CODE #1366
This certificate option is targeted to persons already employed in industry who are seeking career advancement with RPG or AS400 systems.

REQUIRED PROGRAM ............................................................. Units
ACC 1A Financial Accounting or
ACC 60 Fundamentals of College Accounting 3-4
BUS 41 Introductory Keyboarding or
Keyboarding Certificate at 25 wpm or better 0-1.5
CIS 3 Introduction to Computer Information Science 3
CIS 14A Operating Systems (OS/400) 1
CIS 14B Intermediate Operating Systems (OS/400) 1
CIS 41 Algorithm Design/Problem Solving 3
CIS 42A RPG Programming 4
CIS 43 Introduction to Control Language 4
TOTAL UNITS REQUIRED .................................................... 19-21.5

CERTIFICATE

Computer Information Science ~
Mid-Size Computer Programmer, Comprehensive
CODE #1367
This certificate option is targeted to persons seeking entry-level positions in industry as an RPG programmer on the AS400 system.

REQUIRED PROGRAM ............................................................. Units
ACC 1A Financial Accounting or
ACC 60 Fundamentals of College Accounting 3-4
BUS 41 Introductory Keyboarding or
Keyboarding Certificate at 25 wpm or better 0-1.5
CIS 3 Introduction to Computer Information Science 3
CIS 13A Database Management 1
CIS 13B Intermediate Database Management 1
CIS 14A Operating Systems (OS/400) 1
CIS 14B Intermediate Operating Systems (OS/400) 1
CIS 37 Database Programming 3
CIS 41 Algorithm Design/Problem Solving 3
CIS 42A RPG Programming 4
CIS 42B Advanced RPG Programming 4
CIS 43 Introduction to Control Language 4
CIS 51 Data Processing System Analysis and Design 4
Plus eight (8) units selected from 8
CIS 36A COBOL Programming and
CIS 36B Advanced COBOL Programming
or
CIS 32A Introduction to Structured Programming and
CIS 39 Object Oriented Programming (Java)
TOTAL UNITS REQUIRED .................................................... 40-42.5

CERTIFICATE

Desktop Publishing
CODE #1973

REQUIRED PROGRAM ............................................................. Units
CMED 70 Multimedia Graphics 3
JOUR 25 Media Writing 1
CIS 14A Operating Systems (Windows and UNIX) 2
CIS 16A Introduction to Data Communications 1
CIS 16B Introduction to Local Area Networks 1
CIS 60 Network Administration 2
TOTAL UNITS REQUIRED .................................................... 12

DEGREE

A.S.—Computer Information Science: Networking
CODE #1290
REQUIRED PROGRAM ............................................................. Units
ENGL 1A College Composition 3
MATH 53 Intermediate Algebra or
MATH 54 Intermediate Algebra with Applications 4-5
CIS 3 Introduction to Computer Information Science 3
CIS 14A Operating Systems (Windows and UNIX) 2
CIS 14B Intermediate Operating Systems (Windows or UNIX) 1
CIS 16A Introduction to Data Communications 1
CIS 16B Introduction to Local Area Networks 1
CIS 32A Introduction to Structured Programming 4
CIS 60 Network Administration 3
CIS 61 Advanced Network Administration 2
CIS 62 Network Installation and Configuration 2
CIS 63 Network Technologies 3
CIS 64 TCP/IP Protocols 3
CIS 65 Network Design and Implementation 2
TOTAL UNITS REQUIRED .................................................... 33-34

Suggested Electives: Business 41, 42, 50.

CERTIFICATE

Computer Information Science ~
Network Administration
CODE #1272
The Network Administration Certificate is designed for a person who is responsible for the day to day operation of a network. Network administrators typically perform tasks such as applications, and maintaining security.

REQUIRED PROGRAM ............................................................. Units
CIS 3 Introduction to Computer Information Science 3
CIS 14A Operating Systems (Windows and UNIX) 2
CIS 14B Intermediate Operating Systems (Windows or UNIX) 1
CIS 16A Introduction to Local Area Networks 1
CIS 60 Network Administration 2
TOTAL UNITS REQUIRED .................................................... 12
CERTIFICATE
Computer Information Science -
Network Technician
CODE #1273
The Network Technician Certificate is designed for a person who is responsible for providing support for networks. The responsibilities of a network technician could include system installation, configuration, and maintenance.

REQUIRED PROGRAM ................................................................. Units
CIS 3  Introduction to Computer Information Science ................. 3
CIS 14A Operating Systems (Windows and UNIX) ..................... 2
CIS 14B Intermediate Operating Systems (Windows or UNIX) ...... 1
CIS 16A Introduction to Local Area Networks .............................. 1
CIS 16B Introduction to Data Communications ............................ 1
CIS 80 Network Systems Administration ..................................... 2
CIS 81 Intermediate Network Systems Administration ............... 3
CIS 82 Advanced Network Systems Administration ................... 3
CIS 86 TCP/IP Protocols (2) or
CIS 65 Network Design & Implementation (2)
TOTAL UNITS REQUIRED .......................................................... 24

CERTIFICATE
Computer Information Science -
Network Systems Administration
CODE #1371
REQUIRED PROGRAM .................................................................. Units
CIS 3  Introduction to Computer Information Science ................. 3
CIS 14A Operating Systems (Windows and UNIX) ..................... 2
CIS 16A Introduction to Data Communications ........................... 1
CIS 16B Introduction to Local Area Networks .............................. 1
CIS 17A Introduction to the Internet .......................................... 1
CIS 51 Data Processing Systems Analysis and Design ............... 4
CIS 63 Network Technologies .................................................... 3
CIS 80 Network Systems Administration ..................................... 2
CIS 81 Intermediate Network Systems Administration ............... 3
CIS 82 Advanced Network Systems Administration ................... 3
CIS 86 Web Server Administration (3) or
CIS 87  Messaging Server Administration using
Exchange Server (2) or
CIS 98 Work Experience in CIS (3) ........................................... 2-3
TOTAL UNITS REQUIRED .......................................................... 29-30

One degree and two certificate options available at Main Campus to provide training in Window Systems Networking.

DEGREE
A.S.—Computer Information Science:
Network Systems Engineering
CODE #1370
REQUIRED PROGRAM ................................................................. Units
BUS 8  Business Communications or
ENGL 1A  College Communication ........................................... 3
BUS 41 Introductory Keyboarding or
Keyboarding Certificate at 25 wpm or better ....................... 0-1.5
SPEE 9  The Communication Experience or
SPEE 15 Group Discussion ..................................................... 3
MATH 53 Intermediate Algebra or
MATH 54 Intermediate Algebra with Applications .............. 4 - 5
CIS 3  Introduction to Computer Information Science ................. 3
CIS 14A Operating Systems (Windows and UNIX) ..................... 2
CIS 14B Intermediate Operating Systems (Windows or UNIX) ...... 1
CIS 16A Introduction to Data Communications ............................ 1
CIS 16B Introduction to Local Area Networks .............................. 1
CIS 21A Introduction to the Internet .......................................... 1
CIS 38 Programming in Visual BASIC ........................................ 4
CIS 51 Data Processing Systems Analysis and Design ............... 4
CIS 63 Network Technologies .................................................... 3
CIS 65 Network Technologies .................................................... 3
CIS 80 Network Systems Administration ..................................... 2
CIS 81 Intermediate Network Systems Administration ............... 3
CIS 82 Advanced Network Systems Administration ................... 3
CIS 84 Internetworking with TCP/IP ......................................... 3
CIS 86 Web Server Administration (3) or
CIS 87  Messaging Server Administration using
Exchange Server (2) or
CIS 98 Work Experience in CIS (3) ........................................... 2-3
TOTAL UNITS REQUIRED .......................................................... 43-46.5
DEGREE

A.S.—Management Information Systems

CODE #1074

This program provides the basic skills necessary for a career in business, while allowing the student to select courses that fit individual needs and desires.

REQUIRED PROGRAM .......................................................... Units
Business Core:
ACC 1A Financial Accounting ......................................................... 4
BUS 8 Business Communications or
ENGL 1A College Composition* .................................................. 3
BUS 15 Managing Diversity in the Workplace or
SOC 5 Minorities in America* ...................................................... 3
BUS 18A Business Law .................................................................. 3
BUS 20 Introduction to Business .................................................. 3
BUS 41 Introductory Keyboarding or
Keyboarding Certificate at 25 wpm or better ................................. 0-1.5
MKT 20 Principles of Marketing or
MGMT 1 Intro. to Total Quality Management* or
MGMT 24 Techniques of Management ......................................... 3
CIS 3 Introduction to Computer Information Science .......................... 3
ECON 1A Principles of Economics ................................................. 3
Management Information Systems:
CIS 11A Beginning Wordprocessing ............................................... 1
CIS 12A Electronic Spreadsheets .................................................. 1
CIS 13A Database Management ................................................... 1
CIS 14A Operating Systems ........................................................ 1
CIS 35A COBOL Programming ..................................................... 1
CIS 38 Programming in Visual BASIC ............................................. 1
CIS 41 Algorithm Design/Problem Solving ...................................... 1
Plus eight (8) units selected from .................................................. 8
STAT 1
TOTAL UNITS REQUIRED .................................................... 48-49.5

Suggested Electives
Accounting 1B; Business 42, 98; Computer Information Science
15B, 16B, 17B; Economics 1B; Human/Career Development (any
combination of courses).

* NOTE If student plans to transfer to a 4-year institution,
recommend selecting option that is identified with an asterisk.

General Education Graduation Requirements - See page 18.

CERTIFICATE

Management Information Systems — Application Data Entry

CODE #1076

This certificate is designed for persons who need to know how to
perform computer-related data entry. Students who continue their
education by pursuing another Office Administration or
Management Information Systems certificate may do so without
repeating any courses completed for this certificate. (Not available
to students who have received certificate #1209.)

REQUIRED PROGRAM .......................................................... Units
CIS 1 Computer Familiarization or
CIS 3 Introduction to Computer Information Science ........................ 1-3
CIS 11A Beginning Wordprocessing ............................................... 1
BUS 10 Electronic Calculators ..................................................... 2
BUS 52 Office Procedures ........................................................ 3
BUS 41 Introductory Keyboarding .................................................. 1.5
BUS 42 Keyboard Formatting ....................................................... 1.5
TOTAL UNITS REQUIRED ..................................................... 10-12

CERTIFICATE

Management Information Systems — Information Processing

CODE #1079

This certificate is designed for the person who needs familiarity
with the most common computerized business application
programs. (Not available to students who have received certificate
#1210.)

REQUIRED PROGRAM .......................................................... Units
Management Information Systems-Data Entry or
Office Assistant-Data Entry Certificate ........................................ 10-12
BUS 8 Business Communications ................................................. 3
CIS 11B Intermediate Wordprocessing ......................................... 1
CIS 12A Electronic Spreadsheets .................................................. 1
CIS 13A Database Management ................................................... 1
TOTAL UNITS REQUIRED ..................................................... 16-18

CERTIFICATE

Management Information Systems — Application Technician

CODE #1078

This certificate provides additional training in the use of the most
common computerized business application programs. This course
of study would be appropriate for a user who is the lead person in
an office.

REQUIRED PROGRAM .......................................................... Units
Management Information Systems-Information Processing or
Office Assistant-Information Processing Certificate ........................ 16-18
CIS 12B Intermediate Electronic Spreadsheets .................................. 1
CIS 13B Intermediate Database Management .................................. 1
CIS 14A Operating Systems ...................................................... 1
CIS 15A Presentation Graphics ................................................... 1
TOTAL UNITS REQUIRED ..................................................... 20-22

COSUMNES RIVER COLLEGE 2000 - 2001
CERTIFICATE
Management Information Systems ~ Application Analyst
CODE #1075
This certificate is designed for the person who needs training beyond the ability to use computerized business application programs that support the office application environment. This course of study would be appropriate for the person who is responsible for general PC use in the office.

REQUIRED PROGRAM ............................................................. Units
Management Information Systems - Application Technician Certificate ........................................ 20-22
CIS 14B Intermediate Operating Systems ........................................... 1
CIS 16A Introduction to Data Communications .................................. 1
CIS 17A Desktop Publishing ......................................................... 2
CIS 17B Intermediate Desktop Publishing ...................................... 2
TOTAL UNITS REQUIRED ...................................................... 26-28

CERTIFICATE
Management Information Systems ~ Application Manager
CODE #1077
This certificate focuses on financial accounting, programming, and systems analysis for the applications manager needing additional problem-solving skills appropriate to business and government.

REQUIRED PROGRAM ............................................................. Units
Management Information Systems - Application Analyst Certificate ........................................ 26-28
ACC 1A Financial Accounting ...................................................... 4
CIS 38 Programming in Visual BASIC ........................................... 4
CIS 36A COBOL Programming ..................................................... 4
CIS 36B Advanced COBOL Programming ..................................... 4
CIS 41 Algorithm Design/Problem Solving .................................... 3
CIS 51 Data Processing System Analysis and Design ....................... 4
TOTAL UNITS REQUIRED ...................................................... 49-51

Computer Information Science

1 COMPUTER FAMILIARIZATION 1 Unit
Prerequisite: None.
Advisory: CIS 90 and Business 41
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This is an introductory course to provide general knowledge on how computers work, computer terminology and the impact of computers on society and the work environment. Beginning level hands-on instruction using an operating system, word processing software, spreadsheet software, and the Internet will be emphasized. Students will be reading and interpreting written and oral instructions of a technical nature.

3 INTRODUCTION TO COMPUTER INFORMATION SCIENCE 3 Units
Prerequisite: None.
Advisory: Business 41
Acceptable for credit: CSU
54 hours lecture
This course is an introduction to the computer field covering the function and concepts of hardware, computer programming, application and operating software, data communications, the Internet, databases, employment opportunities, and the social impact of the computer. Students will be reading and interpreting written and oral instruction of a technical nature.

4 COMPUTER SKILLS FOR EDUCATORS 3 Units
Prerequisite: None. (Not open to students who have received credit for ECE 29.)
Advisory: Business 41
54 hours lecture
This course is designed for educators of young children. The course will provide a comprehensive overview of the use of computer technology in the classroom in order to enhance the educational advancement of the child and facilitate ease of instruction and administration for the teacher. The course will provide hands-on experience in the use of computer applications, educational software, and problem-solving skills.

11A BEGINNING WORDPROCESSING 1 Unit
Prerequisite: Successful completion of Business 41 or Keyboarding Certificate at 25 wpm or better.
Advisory: CIS 1 or 3
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This is a course designed to introduce students to the use of word processing programs. The course includes basic word processing operations—formatting, editing, saving, retrieving and printing text. It also includes creating and editing simple tables and columns. Students may receive one unit credit for each topic offered. Consult class schedule for specific topics. This course may be taken four times for credit.
11B INTERMEDIATE WORDPROCESSING 1 Unit
Prerequisite: CIS 11A.
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This is a course designed to build upon previous training in the use of wordprocessing. The course includes a brief review of basic editing and file management concepts, then covers in-depth advanced software features such as desktop publishing using graphic lines, boxes, and images; styles; advanced file management; merge; and sort. Students may receive one unit credit for each topic offered. Consult the class schedule for specific topics. This course may be taken four times for credit.

11C ADVANCED WORDPROCESSING 1 Unit
Prerequisite: CIS 11B.
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This is a course designed to build upon previous training in the use of wordprocessing. The course includes a brief review of wordprocessing features, then covers advanced features such as advanced desktop publishing features, advanced styles, advanced tables, outlines, table of contents, and indexes. Students may receive one unit credit for each topic offered. Consult the class schedule for specific topics. This course may be taken four times for credit.

11U WORDPROCESSING - UPDATE .5 - 1 Unit
Prerequisite: CIS 11B.
Acceptable for credit: CSU
9-18 hours lecture, 9-18 hours laboratory
New versions of computer software are released on a regular basis. The purpose of this course is to help students develop advanced skills and describe the changes and improvements in the software. This course assumes that students have knowledge of existing software and are looking to update their skills and develop new capabilities. Credit will be awarded on the basis of one-half unit for each nine hours of lecture. This course may be taken four times for credit on new versions of software.

12A ELECTRONIC SPREADSHEETS 1 Unit
Prerequisite: None.
Advisory: CIS 1 or 3
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This course is designed to introduce the student to the use of spreadsheet programs. The course will include designing a spreadsheet, developing formulas for automatic calculations, using special functions, developing “what-if” models and producing reports. Students will be using mathematical concepts and skills. Students may receive one unit credit for each topic offered. Consult the class schedule for specific topics.

12B INTERMEDIATE ELECTRONIC SPREADSHEETS 1 Unit
Prerequisite: CIS 12A.
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This course introduces the student, through hands-on operations, to the intermediate features of spreadsheet programs on the microcomputer. The course will cover keyboard macros, lookup tables and logical expressions as well as advanced file operations and spreadsheet convenience commands. Students will follow spreadsheet templates and design their own sheets. Students may receive one unit credit for each topic offered. Consult the class schedule for specific topics.

12U ELECTRONIC SPREADSHEET - UPDATE .5 - 1 Unit
Prerequisite: CIS 12B.
Acceptable for credit: CSU
9-18 hours lecture, 9-18 hours laboratory
New versions of computer software are released on a regular basis. The purpose of this course is to help students develop advanced skills and describe the changes and improvements in the software. This course assumes that students have knowledge of existing software and are looking to update their skills and develop new capabilities. Credit will be awarded on the basis of one-half unit for each nine hours of lecture. This course may be taken four times for credit on new versions of software.

13A DATABASE MANAGEMENT 1 Unit
Prerequisite: None.
Advisory: CIS 1 or 3
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This course is designed to introduce the student to the use of database management programs on the computer. The course will include designing a database; accessing, searching and updating files; and designing and producing printed reports. Students will be reading and interpreting written and oral instructions of a technical nature. Students may receive one unit credit for each topic offered. Consult the class schedule for specific topics.

13B INTERMEDIATE DATABASE MANAGEMENT 1 Unit
Prerequisite: CIS 13A.
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This course will extend the capabilities of students who have started to use a microcomputer database. Topics and laboratory will include complex relational databases, form design, intermediate report design, advanced queries, OLE objects, macros and an introduction to visual programming. Students may receive one unit credit for each topic offered. Consult the class schedule for specific topics. This course may be taken four times for credit.

13U DATABASE MANAGEMENT - UPDATE .5 - 1 Unit
Prerequisite: CIS 13B.
Acceptable for credit: CSU
9-18 hours lecture, 9-18 hours laboratory
New versions of computer software are released on a regular basis. The purpose of this course is to help students develop advanced skills and describe the changes and improvements in the software. This course assumes that students have knowledge of existing software and are looking to update their skills and develop new capabilities. Credit will be awarded on the basis of one-half unit for each nine hours of lecture. This course may be taken four times for credit on new versions of software.
14A OPERATING SYSTEMS 1 Unit
Prerequisite: None.
Advisory: CIS 1 or 3
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This course introduces the student to the concepts of an operating system (for example, Windows, AS 400, or UNIX). Students may receive one unit credit for each topic offered. Consult the class schedule for specific topics.

14B INTERMEDIATE OPERATING SYSTEMS 1 Unit
Prerequisite: CIS 14A.
Computer programming experience highly recommended.
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This course is intended to advance the student's knowledge of operating systems, for example, DOS, Windows or UNIX. The class covers the study of advanced commands, effective utility use, advanced batch files/script files, program logic, disk organization, making user-friendly systems, anticipating and preventing system problems. The class may be taken more than once for credit, if the course covers a different operating system than that for which the student had previously received credit.

14C ADVANCED OPERATING SYSTEMS 1 Unit
Prerequisite: CIS 14B.
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This course is an extension of concepts learned in Intermediate Operating Systems. It covers issues including: system maintenance, system optimization, system protection, adding system utilities, scripting, defining user parameters, trouble shooting, device and file sharing. Students may receive one unit of credit for each topic offered. Consult the class schedule for specific topics. This course may be taken four times for credit.

14U OPERATING SYSTEMS - UPDATE .5 - 1 Unit
Prerequisite: CIS 14B.
Acceptable for credit: CSU
9-18 hours lecture, 9-18 hours laboratory
New versions of computer software are released on a regular basis. The purpose of this course is to help students develop advanced skills and describe the changes and improvements in the software. This course assumes that students have knowledge of existing software and are looking to update their skills and develop new capabilities. Credit will be awarded on the basis of one-half unit for each nine hours of lecture. This course may be taken four times for credit on new versions of software.

15A PRESENTATION GRAPHICS 1 Unit
Prerequisite: None.
Advisory: CIS 1 or 3
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This course is an introduction to the use of the computer to generate graphics used in business. Topics covered include: hardware (screens, printers, input devices), software (paint, chart, CAD), types of graphics (pictures, graphs, charts, designs). Students may receive one unit credit for each topic offered. Consult the class schedule for specific topics.

15B INTERMEDIATE PRESENTATION GRAPHICS 1 Unit
Prerequisite: CIS 15A.
Computer programming experience highly recommended.
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This course presents an in-depth look at using the computer as a graphics presentation tool to support oral, written and on-screen presentations. Students will use a variety of computer hardware and software to produce two types of projects. The class will include both lecture and hands-on experience. Students may receive one unit credit for each topic offered. Consult the class schedule for specific topics.

15U PRESENTATION GRAPHICS - UPDATE .5 - 1 Unit
Prerequisite: CIS 15B.
Acceptable for credit: CSU
9-18 hours lecture, 9-18 hours laboratory
New versions of computer software are released on a regular basis. The purpose of this course is to help students develop advanced skills and describe the changes and improvements in the software. This course assumes that students have knowledge of existing software and are looking to update their skills and develop new capabilities. Credit will be awarded on the basis of one-half unit for each nine hours of lecture. This course may be taken four times for credit on new versions of software.

16A INTRODUCTION TO DATA COMMUNICATIONS 1 Unit
(formerly Telecommunications)
Prerequisite: None
Advisory: CIS 1 or 3; and CIS 14A
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This course is an introduction to microcomputer data communications systems. The course surveys data communications hardware and software components with a focus upon the application of these components towards functional data communications tasks. This course may be taken four times for credit on different software packages or operating systems.

16B INTRODUCTION TO LOCAL AREA NETWORKS 1 Unit
Prerequisites: CIS 14A.
Advisory: CIS 16A
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This course introduces local area networks and provides hands-on training in basic LAN applications and administration. Topics include planning, installing, and maintaining a LAN, as well as responsibilities of the system administrator, and human implications.
17A DESKTOP PUBLISHING 2 Units
Prerequisite: None. (Not open to students who have received credit for Journalism 35A.)
Advisory: CIS 1 or 3; and CIS 11A
Acceptable for credit: CSU
27 hours lecture, 27 hours laboratory
This course will cover the introductory elements of desktop publishing. The course is taught in three modules with a project attached to each module. The course covers hardware and software, elements of design, computer graphics, text composition, page layout, and integration of text and graphics. Projects may include, but are not limited to: business cards, stationery, logos, covers, flyers, brochures, newsletters. Students may receive two units credit for each topic offered.

17B INTERMEDIATE DESKTOP PUBLISHING 2 Units
Prerequisite: CIS 17A or Journalism 35A. (Not open to students who have received credit for Journalism 35B).
Acceptable for credit: CSU
27 hours lecture, 27 hours laboratory
This course will cover the intermediate elements of desktop publishing. The course is taught in three modules with a project attached to each module. The course covers intermediate hardware and software, elements of intermediate design, graphics and text composition, multi-page layout, design for publishing presentations, project management and single- and multi-page documents. Projects may include, but are not limited to: reports, slides, overheads, posters, transparencies, billboards, brochures, newsletters. Students may receive two units credit for each topic offered.

17U DESKTOP PUBLISHING - UPDATE .5 - 1 Unit
Prerequisite: CIS 17B.
Acceptable for credit: CSU
9-18 hours lecture, 9-18 hours laboratory
New versions of computer software are released on a regular basis. The purpose of this course is to help students develop advanced skills and describe the changes and improvements in the software. This course assumes that students have knowledge of existing software and are looking to update their skills and develop new capabilities. Credit will be awarded on the basis of one-half unit for each nine hours of lecture. This course may be taken four times for credit on new versions of software.

18A GROUPWARE 1 Unit
(formerly CIS 18, Integrated Software)
Prerequisite: None.
Advisory: CIS 1 or CIS 3
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This course introduces desktop management software which allows students to organize and communicate across micro-computer applications. Using different Windows-based software, the student will design and manage electronic mail messages, faxes, appointments, contacts, task activities, and notes. Topics include calendar manipulation, information management, and profile interfaces. This course may be taken three times for credit on different software programs or operating systems.

21A INTRODUCTION TO THE INTERNET 1 Unit
Prerequisite: None.
Advisory: CIS 1 or 3
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
Students will learn how the Internet works, how to connect, and how to use the basic services. Topics will include the World Wide Web, E-mail, chat, news groups and mailing lists, Telnet, and file Transfer protocol (FTP). Students will also be introduced to HyperText markup Language (HTML).

21B WEB PAGE DESIGN 1 Unit
Prerequisite: CIS 21A.
Acceptable for credit: CSU
18 hours lecture, 18 hours laboratory
This course covers the production of Web Pages, including design, layout, construction, and presentation. Students use HTML to format a Web page.

25 SCRIPTING FOR THE INTERNET 4 Units
Prerequisite: CIS 3 and 21B.
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
This course introduces the student to Internet web page programs designed with various scripting tools. This course emphasizes the creation of web pages incorporating complex processes using a traditional structured, topdown design and implementation approach. Students will learn to design and write scripts to automate processes, maintain databases, handle image maps, maintain security, implement statistical data collection, do problem analysis, do general housekeeping, build templates, and do other multi-media tasks. Students may receive four units of credit for each topic offered. Consult the class schedule for specific topics. This course may be taken four times for credit.

26 SCRIPTING FOR APPLICATIONS 3 Units
Prerequisite: None
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course is an introduction to the application scripting. Topics include OS environment, office suites, scripting languages, user interface, creating macros, using application objects, properties and methods, customizing applications, linking application data, buttons, boxes, graphics, data handling, error handling, control, and form handling. This course will enable students to understand object oriented programming concepts like forms, methods, objects, projects and modules. Students will design useful application macros and scripts. Students may receive three units of credit for each topic offered. Consult the class schedule for specific topics. This course may be taken four times for credit.
29 MICROCOMPUTER SUPPORT AND MAINTENANCE 4 Units
Prerequisite: CIS 3, 11A, 12A, 13A, 14A, and 16A.
Acceptable for credit: CSU
36 hours lecture, 108 hours laboratory
This course is an introduction to technical support and maintenance of microcomputers. It includes lecture and hands-on application of help desk concepts and responsibilities, hardware and software troubleshooting in a networked environment, system documentation, and technical communication skills.

31 STRUCTURED PROGRAMMING WITH PASCAL 4 Units
Prerequisite: CIS 3.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This course introduces the student to Pascal, a language that emphasizes the concepts of structured programming. Topics include "top down" design, input/output, data types, control structures, functions, and procedures. Students will design, code, test and run Pascal programs. (CAN CSCI 12)

32A INTRODUCTION TO STRUCTURED PROGRAMMING 4 Units
(formerly Structured Programming With "C")
Prerequisite: CIS 3 and CIS 41 (CIS 41 may be taken concurrently)
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This course is an introduction to structured programming. The topics covered include: top-down design, input/output considerations, control structures and flow control, variables, constants, the use of libraries, simple to intermediate data structures, functions, and arguments. An introduction into objects will be included.

32B STRUCTURED PROGRAMMING WITH "C++" 4 Units
Prerequisite: CIS 32A with a grade of "C" or better.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This course is an intermediate C++ course designed to further enhance the students' abilities to design and develop object-oriented programs. Included is an emphasis in GUI development. Detailed information into class design and implementation, function templates, dynamic pointers and intermediate level arrays is provided.

33 FORTRAN PROGRAMMING 3 Units
Prerequisite: CIS 3 and CIS 41.
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This is a class in computer programming using the language FORTRAN 77, which emphasizes mathematical problem-solving and the analysis of laboratory data. It is recommended for those students majoring in engineering or science technology. (CAN CSCI 4)

35A ASSEMBLY LANGUAGE PROGRAMMING ON MICROCOMPUTER 4 Units
Prerequisite: CIS 3.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This course teaches Assembly language programming using the Pentium family of microprocessors. The course will cover architecture, instruction set, addressing modes, interrupts and peripheral control. Program structure and operating system support features that are available to the Assembly language programmer will be studied. Structured programming and efficient design will be emphasized. (CAN CSCI 10)

36A COBOL PROGRAMMING 4 Units
Prerequisite: CIS 3 and CIS 41.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This is a class in computer programming using the language COBOL, emphasizing structured program design, coding, and documentation. Laboratory assignments will cover a variety of input/output techniques, sequential and indexed sequential file access, and one and two dimensional table handling. The course is recommended for Business/MIS majors.

36B ADVANCED COBOL PROGRAMMING 4 Units
Prerequisite: CIS 36A with a grade of "C" or better.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This course covers advanced COBOL concepts and programming techniques. The topics to be covered include sequential file processing, data editing, indexed sequential disk file processing, disk sorts, job control language, debugging languages and techniques, table handling, segmentation and subroutines. The course will emphasize structured design and structured programming utilizing "top down" and modular techniques.

37 DATABASE PROGRAMMING 3 Units
Prerequisite: CIS 13A and three units in any programming language.
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This is an introductory course in programming database. The topics include analysis and design, modular programming, screen displays and menus, and multiple databases. Students may receive three units credit for each topic offered. Consult the class schedule for specific topics. This course may be taken four times for credit.

38 PROGRAMMING IN VISUAL BASIC 4 Units
Prerequisite: None,
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This course is an introduction to the Visual BASIC programming language. Topics include buttons, boxes, graphics, data handling, error handling, control, and form handling. This course will enable students to understand object oriented programming concepts like form, methods, projects, and modules and design useful Windows.
39  OBJECT ORIENTED PROGRAMMING  4 Units
(Formerly introduction to
Object Oriented Programming)
Prerequisite: The student must have satisfactorily completed a
course in introduction to programming in the fundamental
language of the object oriented programming language
(examples: CIS 38-Programming in Visual BASIC for Visual
BASIC, CIS 31-Pascal for Delphi, CIS 32B - Structured
Programming with C++).
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This course is an introduction to object oriented programming.
It may use a number of different programming languages
(including but not limited to: Visual BASIC, Delphi, C++) and
may be taken more than once for credit for different programming
languages. The student must have successfully com-
pleted an introductory class (such as CIS 31, 32B, 38) in the
fundamental language of that being offered. The student will
learn how to look at data and its relationships to the functions
that operate on data. Topics will include but not be limited to:
forms, components, properties, classes, objects, static and
dynamic relationships, data bases, data sets, queries, hierar-
chies, inheritance, coding, dialog boxes, associations, testing
and debugging.

40  DATA STRUCTURES  4 Units
Prerequisite: The student must have satisfactorily completed a
course in intermediate programming in the language of the
structures course being offered. For example: CIS 39 or CIS
32B with a grade of "C" or better
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This course applies a case study approach which incorporates
techniques for systematic problem analysis, program specification,
design, coding, testing, debugging and documentation of
large programs. Advanced language features related to strings,
non-text files, pointers, recursion, and object-oriented program-
mimg methodology are covered. Data structures include stacks,
queues, trees, lists, etc. Searching and sorting techniques are
discussed. Student may receive four units of credit for each
topic offered. Consult the class schedule for specific topics.
This course may be taken four times for credit.

41  ALGORITHM DESIGN/PROBLEM SOLVING  3 Units
Prerequisite: CIS 3.
Acceptable for credit: CSU, UC
54 hours lecture
This course is designed to assist the Computer Science major
with the understanding of typical computer problems. Topics
covered include assessing and analyzing computer problems in
a top down, divide and conquer approach that leads to a
programming solution. Students will create programming plans
and detailed design documents from which source code
versions of programs can be created.

42A  RPG PROGRAMMING  4 Units
Prerequisite: CIS 41
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
This course teaches the student the syntax, coding rules of the
RPG language, and certain elementary programming tech-
niques, in order to write programs and develop general
solutions to basic data processing problems by first develop-
ing a flowchart and then developing the RPG program.
Emphasis is on skills and efficiency in programming. Compre-
hensive case studies are executed on the college AS/400
computer facility. This course is designed for students
majoring in programming, people from industry already
working in the field of data processing, and students who
have already had a course in programming and wish to
broaden their data processing education.

42B  ADVANCED RPG PROGRAMMING  4 Units
Prerequisite: CIS 42A
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
This course teaches the student the display format design
needed to develop interactive and subfile programs. Empha-
sis is on developing the skills needed for efficient interactive
programming executed in an on-line environment at the
college AS/400 computer facility. This course is designed for
students majoring in programming and people from the
industry already working in the field of data processing.

43  INTRODUCTION TO CONTROL LANGUAGE  4 Units
Prerequisite: CIS 42A
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
This course teaches the student the structure and syntax of the
AS/400 Control Language (CL). Emphasis is on developing
the skills needed for efficient communication with the
operating system, executed on the college AS/400
computer facility. This course is designed for students majoring in
programming and people from the industry already working in
the field of data processing.

49  SPECIAL STUDIES IN
COMPUTER INFORMATION SCIENCE  1-4 Units
Acceptable for credit: CSU, UC-See Counselor
This is a course designed to give students an opportunity to
study topics in Computer Information Science which are not
included in the current course offerings. This course may be
repeated for credit providing there is no duplication of topics.
(See catalog p. 21)

51  DATA PROCESSING SYSTEM
ANALYSIS AND DESIGN  4 Units
Prerequisite: None.
Advisory: CIS 36A.
54 hours lecture, 54 hours laboratory
This course is a study of the systems approach to data
processing. This includes the collection, review, processing,
and presentation of data used in data processing systems.
Detailed case studies will be analyzed. Software analysis
tools will be utilized. Students will have both individual and
group projects.
60 NETWORK ADMINISTRATION 3 Units
Prerequisite: CIS 3 and CIS 14A (Windows).
45 hours lecture, 27 hours laboratory
This course covers the basics of managing an existing Local Area Network. Topics covered include connecting to a network; utilizing network utilities; planning, accessing, and managing file systems; planning and implementing login and file system security; administering and maintaining the user and printer environment; protecting network data; and installing network applications. Course may be repeated for different versions of the network operating system.

61 ADVANCED NETWORK ADMINISTRATION 2 Units
Prerequisite: CIS 60.
27 hours lecture, 27 hours laboratory
This course covers topics necessary for an experienced network administrator to monitor, maintain and improve the performance of an existing Local Area Network. Course may be repeated for each version of the network operating system.

62 NETWORK INSTALLATION AND CONFIGURATION 2 Units
Prerequisite: CIS 61.
27 hours lecture, 27 hours laboratory
This course covers the basics of installing and configuring a network. Topics covered include installing and configuring network servers, clients, and print servers; setting up system security; setting up workgroups and accounts; and upgrading systems. Course may be repeated for each version of the network operating system.

63 NETWORKING TECHNOLOGIES 3 Units
Prerequisite: CIS 3 and CIS 14A.
54 hours lecture
This course provides a comprehensive survey of Local Area Networks, technologies, protocols, and connectivity. Topics covered include the Open Systems Interconnection seven-layer model for communication, communication protocols and standards, data translation, transmission, and media, and network topologies and access methods. Student may receive three units credit for each topic covered. Consult the class schedule for specific topics. This course may be taken four times for credit.

64 TCP/IP PROTOCOLS 2 Units
Prerequisite: CIS 60 and 63.
27 hours lecture, 27 hours laboratory
This course covers the TCP/IP protocols used on the Internet and how to install a TCP/IP server on a network. Student may receive three units credit for each topic covered. Consult the class schedule for specific topics. This course may be taken four times for credit.

65 NETWORK DESIGN & IMPLEMENTATION 2 Units
Prerequisite: CIS 62.
27 hours lecture, 27 hours laboratory
This course teaches the skills necessary to create a design and implementation strategy for a complex network. The student will learn a process that shows the sequence of skills and tasks that enable a solid design using proven methods. At the end of the course, the student will complete a network design strategy and implementation schedule with templates that can be used for creating a design in their own networking environment. Course may be repeated for each version of network operating system.

70 INTRODUCTION TO MULTIMEDIA 3 Units
Prerequisite: None.
Advisory: CIS 1 or Journalism 1
36 hours lecture, 54 hours laboratory
This course will familiarize students with the ways of designing and producing multimedia presentations. Personal computers and audio-video technology are merged in order to take advantage of the special features of each. The course presents a description and history of computer-interactive multimedia. Students explore current uses of these technologies and receive instruction in practical application. Each student conceives, writes, and designs a high-level multimedia program, using a user-friendly system. Some uses of multimedia include: professional presentations, Internet web pages, job training, interactive newsletters, computer games and point-of-purchase marketing. Students may take a combination of CIS 70/Comm. Media 70 a total of two times for credit.

75 PROJECT MANAGEMENT TECHNIQUES AND SOFTWARE 3 Units
Prerequisite: None. (Not open to students who have received credit for Management 75.)
Advisory: CIS 1 or 3
36 hours lecture, 54 hours laboratory
This is an introductory course covering the responsibilities of a project manager. It includes the knowledge needed to manage project resources. The course will also introduce the student to the use of project management software to track project resources, tasks and milestones.

80 NETWORK SYSTEMS ADMINISTRATION 2 Units
(formerly Network Administration Using Windows NT Server)
Prerequisite: CIS 3 and CIS 14A (Windows) and CIS 14A (UNIX) and CIS 16A and 16B
Acceptable for credit: CSU
27 hours lecture, 27 hours laboratory
This course covers the administration of a server in a client/server network. Topics include designing a basic network, installing and configuring a network operating system, managing network security with user and group accounts, creating directory structures and network shares, setting up and managing network printers, backing up servers, monitoring and troubleshooting network resources, and establishing policies and procedures for network operations.
81 INTERMEDIATE NETWORK MANAGEMENT
(formerly Intermediate Network Administration Using Windows NT Server)
Prerequisite: CIS 80.
Acceptable for credit: CSU
45 hours lecture, 27 hours laboratory
This course covers advanced administrative tasks of a server in a client/server network. Topics include configuring the server environment, implementing system policies, implementing and managing fault-tolerant disk volumes, managing applications, installing and managing connectivity for different network and client operating systems, managing remote servers, implementing directory replication and file synchronization, and troubleshooting advanced network problems.

82 ADVANCED NETWORK SYSTEMS
(formerly Enterprise Network Administration Using Windows NT Server)
Prerequisite: CIS 81.
Acceptable for credit: CSU
45 hours lecture, 27 hours laboratory
This course covers the administration of a server in an enterprise network. Topics include designing an enterprise network; optimizing network servers for enterprise-related roles; managing enterprise users, groups and resources; planning and implementing connectivity to other networks in the enterprise; server and network optimization; and troubleshooting at the enterprise level.

84 INTERNETWORKING WITH TCP/IP
(formerly Internetworking with TCP/IP Using Windows NT Server)
Prerequisite: CIS 81.
Acceptable for credit: CSU
45 hours lecture, 27 hours laboratory
This course covers the implementation of the TCP/IP protocol suite in an enterprise network. Topics include installing, configuring and testing TCP/IP; planning and implementing subnetworks; managing IP address assignments; IP routing; installing and configuring DNS, TCP/IP network printing; troubleshooting the network with TCP/IP utilities; and planning for IPv6.

86 WEB SERVER ADMINISTRATION
(formerly Web Server Administration Using Windows NT Server)
Prerequisite: CIS 84 and CIS 21A.
Acceptable for credit: CSU
45 hours lecture, 27 hours laboratory
This course covers the installation and administration of web servers for the Internet and intranets. Topics include the installation, configuration, management and tuning of web servers, including WWW and FTP services; security features, on-line transaction processing; and web site optimization.

87 MESSAGING SERVER ADMINISTRATION
(formerly Messaging Server Administration Using Windows NT Server)
Prerequisite: CIS 81.
Acceptable for credit: CSU
27 hours lecture, 27 hours laboratory
This course covers the installation and administration of messaging servers. Topics include the installation, configuration, management and tuning of mail and messaging services on both servers and clients; mail access protocols; security issues and Internet connectivity.

90 COMPUTER LAB ORIENTATION
Prerequisite: None
9 hours lecture
This course is recommended for all students who are taking a class that requires the use of the CRC Computer Lab and who have not used the lab previously. The course covers: lab rules and requirements, equipment and programs, personnel and procedures. The course is credit / no credit and may be challenged.

98 WORK EXPERIENCE IN
COMPUTER INFORMATION SCIENCE
(See catalog p. 22)
**COMPUTER INFORMATION SCIENCE**

*Curriculum Prerequisite Hierarchy*

* For CIS 1 or 3, it is advised to take Business 41 prior.

**Application Update Classes** (U)
- CIS 11, 12, 13, 14, 15, 17, 18

**Networking Classes - Novell**
- CIS 3
- CIS 14A (Unix)
- CIS 14A (WIN)

**Internet Classes**
- CIS 21A
- CIS 3
- CIS 21B
- CIS 25

**Object Oriented Programming**
- CIS 38
- CIS 31
- CIS 32B
- CIS 39

**RPG / AS400**
- CIS 14A (AS/400)
- CIS 3
- CIS 41
- CIS 42A
- CIS 42B
- CIS 43

**Network Systems Administration/ Engineering** (Windows NT Server)
- CIS 21A
- CIS 3
- CIS 14A (2)
- CIS 16A
- CIS 16B

- CIS 38 (recommended)
- CIS 51
- CIS 98 (Elec) (Instructor approval)

- CIS 80
- CIS 87
- CIS 81
- CIS 82
- CIS 84
- CIS 86 (Elec)
Area of Careers and Technology

Construction (Environmental Design)

DEGREE A.S.—Environmental Design, Construction
CERTIFICATE Construction

This CRC program trains for an industry that is one of the largest employers in the nation. CRC’s program is designed to provide students with basic and applied technical skills and knowledge necessary for employment in the building and construction industry. Standard construction procedures are emphasized throughout the program.

NOTE: Construction practices courses (CMT 80A/B) are offered only as student demands dictate. (See also Construction Management Technology Program.)

Career Options
Construction Manager; Estimators; Draftspersons; Material Salespersons; Inspectors; Expeditors

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

DEGREE
A.S.—Environmental Design, Construction
CODE #1110

<table>
<thead>
<tr>
<th>REQUIRED PROGRAM</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ARCH 1 Introduction to Design Professions</td>
<td>2</td>
</tr>
<tr>
<td>ARCH 16 Architectural Working Drawings</td>
<td>4</td>
</tr>
<tr>
<td>CMT 50 Intro to Construction Plans and Specifications or BIT 58 Reading and Non-Structural Plan Review</td>
<td>3</td>
</tr>
<tr>
<td>CMT 51 Materials of Construction</td>
<td>3</td>
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<tr>
<td>CMT 52 Construction Estimating</td>
<td>3</td>
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<tr>
<td>CMT 54 Construction Scheduling and Critical Path Method</td>
<td>3</td>
</tr>
<tr>
<td>CMT 80A Construction Practices</td>
<td>6</td>
</tr>
<tr>
<td>CMT 80B Construction Practices</td>
<td>7</td>
</tr>
<tr>
<td>BIT 59 Uniform Building Code - Fire and Life Safety</td>
<td>3</td>
</tr>
<tr>
<td>DRAFT 51 Basic Technical Drafting</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL UNITS REQUIRED</td>
<td>37</td>
</tr>
</tbody>
</table>

Suggested Electives: Accounting 60; Business 20; Construction Management Technology 53, 55; Drafting 66.

CERTIFICATE
Construction
CODE #1110

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<tr>
<td>TOTAL UNITS REQUIRED</td>
<td>32</td>
</tr>
</tbody>
</table>

General Education Graduation Requirements - See page 18.
Area of Careers and Technology

Construction Management Technology

DEGREE A.S.—Construction Management Technology
CERTIFICATE Construction Management Technology

This CRC program offers training of management-level employees for the construction industry, as well as preparation for transfer to a four-year college or university construction program. Graduates may be employed by contractors, business and government agencies for work in project planning, estimating, and project coordinating. A student planning to transfer to a four-year college or university should consult the lower division requirements of the anticipated college program.

Career Options
Plan Checker; Estimator; Superintendent; Project Manager; Contractor; Retail/Wholesale; Office Manager; Developer; Foreman; Laborer

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Highlights
Current curriculum emphasizes analytical problem solving and management skills
Field trips to a variety of construction sites to study construction methods and procedures (Instructor option)
Transfer potential to 4-year programs in Construction Technology

DEGREE
A.S.—Construction Management Technology
CODE #1080

REQUIRED PROGRAM ............................................................. Units
ACC 60 Fundamentals of College Accounting or
ACC 96 Accounting for The Small Business or
ACC 1A Financial Accounting ................................................ 3-4
CMT 50 Intro to Construction Plans and Specifications or
BIT 58 Reading And Non-Structural Plan Review ................................ 3
CMT 51 Materials of Construction ................................................... 3
CMT 52 Construction Estimating ................................................ 3
CMT 53 Legal Aspects of Construction ........................................... 3
CMT 54 Construction Scheduling and Critical Path Method ............ 3
CMT 55 Construction Safety ......................................................... 3
CMT 56 Construction Surveying .................................................... 3
CMT 58 Computer Estimating for Construction ......................... 3
DRAFT 66 Introduction to Computer-Aided Design Drafting ..... 2
ENT 1 Introduction to Environmental Tech ................................. 3
CIS 1 Computer Familiarization .................................................. 1
PHYSICS 10 Conceptual Physics .................................................. 3
TOTAL UNITS REQUIRED ....................................................... 36-37

Suggested Electives Architecture 40, Business 8, 16; Statistics 1; Workforce Fitness (PER 1); (these courses also satisfy CRC General Education Graduation Requirements); CMT 70; Drafting 51; Physics 5A, 5B.

General Education Graduation Requirements - See page 18.

CERTIFICATE
Construction Management Technology
CODE #1080

REQUIRED PROGRAM ............................................................. Units
CMT 50 Intro to Construction Plans and Specifications or
BIT 58 Reading And Non-Structural Plan Review ................................ 3
CMT 51 Materials of Construction ................................................... 3
CMT 52 Construction Estimating ................................................ 3
CMT 53 Legal Aspects of Construction ........................................... 3
CMT 54 Construction Scheduling and Critical Path Method ............ 3
CMT 58 Computer Estimating for Construction ......................... 3
DRAFT 66 Introduction to Computer-Aided Design Drafting ...... 2
CIS 1 Computer Familiarization .................................................. 1
TOTAL UNITS REQUIRED ....................................................... 21
Construction Management Technology

49 SPECIAL STUDIES IN CONSTRUCTION MANAGEMENT 1-3 Units
(See catalog p. 21)

50 INTRODUCTION TO CONSTRUCTION PLANS AND SPECIFICATIONS 3 Units
Prerequisite: None.
Advisory: Concurrent enrollment in Construction Management Technology 51.
Acceptable for credit: CSU
54 hours lecture
This is an introductory course in how to read building plans and specifications. Intended for both the homeowner and the builder, the course gives emphasis to building plan symbols, interpretation of shop and field drawings, and requirements for obtaining building permits.

51 MATERIALS OF CONSTRUCTION 3 Units
Prerequisite: None.
Advisory: Construction Management Technology 50.
Acceptable for credit: CSU
54 hours lecture
This is a general survey of materials and methods of building construction. An overall view of residential, commercial, and heavy construction practices will be studied.

52 CONSTRUCTION ESTIMATING 3 Units
Prerequisite: None.
Advisory: Construction Management Technology 51.
54 hours lecture
This course covers construction quantity survey and estimating practices for residential and light commercial building projects.

53 LEGAL ASPECTS OF CONSTRUCTION 3 Units
Prerequisite: None.
54 hours lecture
This course is a summary of the legal implications of licensing, contracts, specifications and their interpretations. Emphasis on the laws of liability, workers compensation, social security, Cal-Osha, lien laws, and federal laws affecting construction and compliance problems.

54 CONSTRUCTION SCHEDULING AND CRITICAL PATH METHOD 3 Units
Prerequisite: None.
Advisory: Construction Management Technology 52
36 hours lecture, 54 hours laboratory
This course introduces computer and manual techniques used in planning, scheduling and controlling construction projects. Network analysis and applications using critical path method and current computer programs will be utilized.

55 CONSTRUCTION SAFETY 3 Units
Prerequisite: None.
Advisory: Construction Management Technology 50.
54 hours lecture
This course addresses the application of safety principles in construction with emphasis on the Occupation Safety and Health Act of 1970 and California OSHA.

56 CONSTRUCTION SURVEYING 3 Units
Prerequisite: None. (Not open to students who have received credit for Engineering 10)
Advisory: Construction Management Technology 51 and completion of or concurrent enrollment in Drafting 51.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course covers the theory and practice of measurements for distance, elevations and angles. Topics include: analysis and adjustment of errors, traverse calculation and adjustment, and boundary surveying. This course is designed for construction management and engineering students.

58 COMPUTER ESTIMATING FOR CONSTRUCTION 3 Units
Prerequisite: None.
Advisory: Completion of Construction Management Technology 52 and concurrent enrollment in Computer Information Science 90.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course is designed to meet current demands for computerized estimating in the construction industry. This course will integrate computer technology with current construction estimating practices. This technology will provide the student with experience in determining construction quantities and costs quickly, economically and effectively.

59 LANDSCAPE INSTALLATION AND MAINTENANCE 3 Units
Prerequisite: None.
Advisory: Horticulture 1 and Horticulture 51 or concurrent enrollment in both classes.
Acceptable for credit: CSU
54 hours lecture, 18 hours laboratory
This course covers the principles and practices of properly installing and maintaining residential and commercial landscapes. Topics also covered include: the bidding of landscape plans for installation and the bidding of landscape maintenance contracts.

60A INTRODUCTION TO CONSTRUCTION PRACTICES 2 Units
Prerequisite: None.
36 hours lecture, 18 hours laboratory
This course is an introduction to construction practices and the construction trades with an emphasis on safe working procedures along with proper use of tools and equipment.
60B  INTERMEDIATE CONSTRUCTION PRACTICES  2 Units
Prerequisite: None.
Advisory: Satisfactory completion of Construction Management Technology 60A.
36 hours lecture, 18 hours laboratory
This course is an introduction to construction practices including safe rigging practices, soil compaction, blueprint reading, survey techniques, burning and cutting and safe installation of temporary power.

70  INTRODUCTION TO SPECIFICATION WRITING  3 Units
Prerequisite: None.
Advisory: Construction Management Technology 50 and 51
54 hours lecture
Principles of basic specifications writing, reference sources, relationship of specifications and drawings to contract documents.

80A  CONSTRUCTION PRACTICES  6 Units
Prerequisite: None.
Advisory: Construction Management Technology 50.
54 hours lecture, 162 hours laboratory
Course designed for learning of skills required for beginning the construction of a home. The tools, equipment, materials, and techniques used in building and landscape construction will be covered as related to programming, detailing, and implementation of construction practices.

81  TOPICS IN CONSTRUCTION MANAGEMENT TECHNOLOGY  .5-4 Units
Prerequisite: None.
One unit equals 18 hours lecture or 54 hours laboratory
Course work designed to cover special topics not included in current construction management offerings in a timely manner. Topics may be offered in workshops or seminar presentations on timely subjects or targeted for specific audiences.

90  CABINET CONSTRUCTION  3 Units
Prerequisite: None.
36 hours lecture, 54 hours laboratory
A course in general cabinet construction which includes case, carcass, built-ins, drawer and furniture construction. Preparing surface for finish, application of finish and selection of finish products.

98  WORK EXPERIENCE IN CONSTRUCTION MANAGEMENT  1-4 Units
(See catalog p. 22)
Dorado Center

Criminal Justice

This CRC program is designed for the student who is interested in law enforcement, private security or home safety.

It provides basic firearms training in the use of the handgun and shotgun. Safety, ethics, and criminal liability are also covered.

Career Options
- Work in correctional institutions;
- Work in Law Enforcement Agencies;
- Private Security Guard; Home Safety

Highlights
- Course(s) 832 P.C. POST-approved
- Instruction in safe use and care of firearms as well as moral aspects on and off duty
- Shooting exercises conducted on an approved range
- Authorization to carry handguns in law enforcement or security agency granted only to qualifying students

Criminal Justice

121A ARREST, SEARCH AND SEIZURE 2 Units
Prerequisite: None
40 hours lecture
Ethics and orientation to police service; discretionary decision-making; arrest, search and seizure laws and cases; methods of arrest. Complies with the requirements of section 832 of the Penal Code. Certified by POST - (Peace Officers Standards and Training).

121B FIREARMS 1 Unit
Prerequisite: Criminal Justice 121A
12 hours lecture, 12 hours laboratory
Legal, moral and safety aspects of firearms use; range firing and qualification. Complies with the requirements of section 832 of the Penal Code. Certified by POST (Peace Officers Standards and Training). Students may wish to challenge the prerequisite on the basis of equivalent experience.
Area of Careers & Technology

**Culinary Arts Management**

**DEGREE**  A.A.—Culinary Arts Management

**CERTIFICATES**  Cooking & Supervision
Community Nutrition Specialist
Basic Culinary Services
School Foodservice Specialist

This CRC program provides professional training for employment in commercial culinary service operations. Courses begin at entry-level training; advanced courses are designed for working professionals as well as full-time degree students.

The program includes coursework in culinary arts, baking and pastry, food purchasing, culinary sanitation, nutrition, marketing, legal control and financial analysis. Students will apply those skills with hands-on training in the campus cafeteria.

Sanitation training is offered as an integral part of each certificate and degree, and is certified by the National Restaurant Association as well as Sacramento County Environmental Health Division.

A Management Development Diploma is also available from the National Restaurant Association by taking eight (8) culinary arts courses at CRC. Contact the area dean or instructional staff for more information.

**Career Options**
Culinary Manager; Culinary Supervisor;
Cook; Kitchen Manager; Waiter / Waitress;
Restaurant Manager; Caterer; Foodservice Worker; Baker; Community Nutrition Specialist; School Foodservice Specialist

**Highlights**
Hands-on experience in all aspects of commercial culinary services through campus cafeteria and catering activities

Professional Management Development Diploma from the Educational Foundation of the National Restaurant Association

State-of-the-art technology in a commercial kitchen facility and instructional laboratory

Curriculum developed in collaboration with Sacramento employers in restaurants, schools, hospitals, and grocery stores

Flexible class scheduling designed to meet the needs of working adults

Faculty qualified as “Certified Hospitality Educators”

Certificates for specialists in community nutrition and school foodservice
CERTIFICATE
Cooking and Supervision
CODE #1130

Designed to provide promotional skills

REQUIRED PROGRAM.................................................................Units
CAM 50 Introduction To Culinary Arts Management............... 2
CAM 51 Culinary Sanitation and Safety...................... 2
CAM 52 Food Theory and Preparation......................... 4
CAM 53A Quantity Food Production................................. 3
CAM 53A* Quantity Food Production............................... 1-3
CAM 53B Hors d'oeuvres & Canapes or
CAM 56 Baking and Pastry.............................................. 3
CAM 54 Culinary Customer Service................................. 2
CAM 55 Culinary Management........................................... 2
CAM 56 Culinary Supervision........................................... 2
CAM 58 Applied Culinary Purchasing............................... 2
CAM 59 Nutrition For Culinary Professionals............... 2
CAM 60 Culinary Marketing............................................. 2
CAM 61 Legal Aspects of Culinary Management................. 2
ECE 92 Culinary Financial Control................................. 2
CAM 64 Food and Culture in America............................... 3
TOTAL UNITS REQUIRED..........................................................33

* This requirement can also be met through instructor approval of
two years work experience in quantity food production operations
and completion of at least 3 units of Culinary Arts Management 98:
Work Experience with a grade of “C” or better.

CERTIFICATE
School Foodservice Specialist
CODE #1276

REQUIRED PROGRAM.................................................................Units
FCS 10 Nutrition................................................................. 3
CAM 51 Culinary Sanitation and Safety...................... 2
CAM 52 Food Theory and Preparation......................... 4
CAM 64 Food and Culture in America or
SPEE 14 Intercultural Communication.......................... 3
CIS 1 Computer Familiarization......................................... 1
CAM 59 Nutrition for Culinary Professionals............... 2
CAM 54 Culinary Customer Service................................. 2
TOTAL UNITS REQUIRED..........................................................24-27

NATIONAL RESTAURANT ASSOCIATION
PROFESSIONAL MANAGEMENT
DEVELOPMENT PROGRAM

Cosumnes River College now offers a Professional Management Development Diploma Program, sponsored by the Educational Foundation of the National Restaurant Association. The Diploma Program offers students:

• an industry-recognized credential from the National Restaurant Association and the Educational Foundation;

• a Certificate of Completion for each course in the program;

• additional scholarship money available for Diploma Program students; and

• National certification in sanitation.

(continued on next page)
Courses to complete the National Restaurant Association Management Development Diploma include:

Required Course:
CAM 51 (Culinary Sanitation & Safety)

Administrative Management:
CAM 61 (Legal Aspects of Culinary Management)

Financial Management:
CAM 62 (Culinary Financial Control)

Human Resource Management:
CAM 57 (Culinary Supervision Skills)

Marketing Management:
CAM 60 (Culinary Marketing)

Operations Management: (Select Three)
CAM 58 (Applied Culinary Purchasing)
CAM 55 (Culinary Management)
CAM 59 (Nutrition for Culinary Professionals)
CAM 53A/B (Quantity Food Production)

Culinary Arts Management

49 SPECIAL STUDIES IN 1 - 3 Units
CULINARY ARTS MANAGEMENT
(See catalog p. 21)

50 INTRODUCTION TO THE 2 Units
CULINARY ARTS MANAGEMENT
Prerequisite: None.
Acceptable for credit: CSU
36 hours lecture
This course profiles the culinary industry and an introduction to the skills and attributes that predict success for professionals. Trends, ethics and issues facing the culinary industry will be discussed. Entry skills to be taught include work simplification, time management, and computational skills.

51 CULINARY SANITATION & SAFETY 2 Units
Prerequisite: None.
Acceptable for credit: CSU
36 hours lecture
This course covers the principles of food microbiology, important foodborne diseases, standards that are enforced by regulatory agencies, and applied measures for the prevention of foodborne diseases and other microbiological problems. All phases of sanitation for professional culinary operations are covered in the context of schools, hospitals and commercial restaurants and cafes. Subjects covered include types and causes of food borne illnesses, correct procedures for handling food in quantity, and the principles of cleaning and sanitizing. The course focuses on practical applications for culinary workers, supervisors, and trainers. Completion of the course includes optional certification by the Educational Foundation of the National Restaurant Association.

52 FOOD THEORY AND PREPARATION 4 Units
Prerequisite: None.
Acceptable for credit: CSU
36 hours lecture, 108 hours laboratory
A comprehensive study of food ingredients and the basic principles and techniques involved in food preparation. A study of the factors that influence foods and the changes which occur in foods during preparation. The laboratory emphasizes basic cooking skills and theory application. The course emphasizes the reasons for procedures and phenomena and the prevention and/or correction of cooking failures. This course is the foundation for the beginning student in professional culinary management.

53A QUANTITY FOOD PRODUCTION 3 Units
Prerequisite: CAM 52
Advisory: CAM 51
Acceptable for credit: CSU
18 hour lecture, 108 hours laboratory
This course is an introduction to the principles of quantity food production. Components include knife skills, equipment recognition, operation and cleaning, use of hand tools and measuring devices; cleaning and cutting raw materials. This course also covers preparation of sandwiches, soups, salads, vegetables, meats, poultry, seafood, breakfast dishes, rice and other grains, pastas and potatoes, sauces and simple dessert items.

53B HORSES D'OEUVRES AND CANAPES 3 Units
Prerequisite: None
Advisory: CAM 53A
Acceptable for credit: CSU
18 hour lecture, 108 hours laboratory
This course is designed to teach the students to utilize any foodstuffs in the production of hors d'oeuvres. Hot and cold hors d'oeuvres as well as the production of canapes will be emphasized. Service styles, service issues, production pointers, and logistics of catering functions will be emphasized.

54 CULINARY CUSTOMER SERVICE 2 Units
Prerequisite: None.
Advisory: Culinary Arts Management 51
Acceptable for credit: CSU
18 hour lecture, 54 hours laboratory
A skills development course to provide entry-level training in culinary customer service for quantity operations. An examination of the components of professional hospitality and meal service. Students will participate in hands-on culinary customer service in the campus culinary operation.

55 CULINARY MANAGEMENT 2 Units
Prerequisite: None.
Advisory: CAM 51, CAM 52 and Math 200 or qualifying through the assessment process
Acceptable for credit: CSU
36 hours lecture
Organizing, planning, and control of production for a quantity culinary operation. Includes menu planning and pricing, scheduling of staff and production, portion and temperature control, recipe standardization and scaling, and elements of culinary layout and design.
56 BAKING AND PASTRY 3 Units
Prerequisite: None.
Advisory: Culinary Arts Management 53A
Acceptable for credit: CSU
18 hour lecture, 108 hours laboratory
This course is designed to introduce students to the fundamental principles of baking and procedures for preparing baked goods, pastries, and desserts. Students gain knowledge and understanding of baking science; laboratory hours are spent in commercial production. Products include yeast breads, Danish pastry, croissants, puff pastry, tortes and fine cakes, tarts and pies, and chocolate work. Emphasis is placed on production of high quality products and professional presentation.

57 CULINARY SUPERVISION 2 Units
Prerequisite: None.
Acceptable for credit: CSU
36 hours lecture
This course is designed to help supervisors meet the challenges and demands of the hospitality field. The course will focus on the skills necessary to be effective leaders, developing human relations' skills and building on workplace diversity. The course will also cover communicating effectively, and creating a positive work climate. Management responsibilities of planning, organizing, controlling, decision making, problem solving and delegating will be included.

58 APPLIED CULINARY PURCHASING 2 Units
Prerequisite: None.
Advisory: Culinary Arts Management 50
Acceptable for credit: CSU
36 hours lecture
This course provides a comprehensive view of purchasing activity as well as its relationship to the management of a successful hospitality operation. This course offers practical applications of purchasing principles from the culinary manager’s viewpoint. This course focuses on distribution channels, purchasing principles and buying techniques, selection factors, receiving, storing, issuing and inventory control.

59 NUTRITION FOR CULINARY PROFESSIONALS 2 Units
Prerequisite: None.
Advisory: Culinary Arts Management 50
Acceptable for credit: CSU
36 hours lecture
This course is designed for students in Culinary Arts Management and focuses on personal nutrition, as well as nutrition in restaurants and foodservices. The course will cover the dietary needs of selected populations and methods used to meet those needs. Emphasis is placed on recipe adaptation and menu planning for more healthful menu offerings in culinary operations. Successful completion of this course meets the certification requirements by the American Culinary Federation.

60 CULINARY MARKETING 2 Units
Prerequisite: None.
Acceptable for credit: CSU
36 hours lecture
This course is an introduction to culinary marketing with a profile of management’s role in marketing. The course includes information systems and marketing research methods to assist in planning. Hospitality consumers and their behavior are discussed. Other topics include advertising, group sales strategies, the importance of carefully designed menus and menu pricing.

61 LEGAL ASPECTS OF CULINARY MANAGEMENT 2 Units
Prerequisite: None.
Advisory: Culinary Arts Management 50
Acceptable for credit: CSU
36 hours lecture
This course is an introduction to the legal aspects of culinary operations through an explanation of and applications to legal subjects relevant to culinary operations. Topics include government regulations, patron civil rights, liability for sales of food and alcoholic beverages, as well as liability for patron safety and property, selection and supervision of employees, property rights and forms of business organizations.

62 CULINARY FINANCIAL MANAGEMENT 2 Units
Prerequisite: None.
Advisory: Culinary Arts Management 50, and Culinary Arts Management 55.
Acceptable for credit: CSU
36 hours lecture
Culinary accounting and finance for culinary operations and the use of accounting techniques in analyzing business performance, in budgeting, and in cost and profit planning.

63 FINE FOOD TO GO: GOURMET COOKING 3 Units
Prerequisite: None.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course is designed to provide the student with the special skills necessary to prepare and market restaurant meals for the home – one of the fastest growing aspects of the culinary field. Students will practice basic and advanced techniques in soups, salads, sauces, vegetable, starch, meat, poultry and fish cookery. Emphasis will also be placed on bread and desserts preparation.
64 FOOD AND CULTURE IN AMERICA 3 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
This course is an in-depth study of the food habits of various minority groups in the United States including Native Americans, African Americans, Asian Americans and Latin American populations. Current foods and food habits will be studied for each group within the context of culture to improve communication and understanding and reduce bias. Food culture stereotypes will be analyzed as vehicles of ethnocentrism, gender-related issues, and/or racism. The course will be comparative in nature, contrasting various western and non-western food patterns.

65 SO YOU WANT TO BE A CHEF: 3 Units
CULINARY CAREERS
Prerequisite: None.
54 hours lecture
This class will cover the history of the culinary profession, explore the numerous avenues of opportunity and study the advantages of continuing education in the field. Through field trips, students will gain exposure to different types of kitchens, industry food shows, produce markets and other pertinent excursions. Students will explore important resources in the field to include periodicals, Internet web sites, discussion groups and professional organizations. The class will study the backgrounds and approach of successful chefs and restauranteurs.

90 TOPICS IN CULINARY MANAGEMENT .5 - 4 Units
Prerequisite: None.
18 hours lecture equals one unit
Coursework designed to cover special topics not included in current culinary offerings. Topics may be offered in a workshop or seminar presentation on timely subjects or targeted for specific audiences.

98 WORK EXPERIENCE IN CULINARY ARTS MANAGEMENT 1-4 Units
(See catalog p. 22)
Area of Careers and Technology

**Drafting Technology**

**DEGREE**  A.S.—Drafting Technology, Design Drafting

**CERTIFICATE**  Design Drafting

See also  ARCHITECTURE TRANSFER PROGRAM

This CRC program provides students with a background in the many fields in which drafting is used: architecture, civil, mechanical, structural, machine design, map-making, electrical and others.

Students who successfully complete the suggested program will be capable of doing detail and layout work normally expected of the drafting aide or technician.

The CRC program is designed to provide transfer opportunities in the Environmental Design and/or Construction Management disciplines as well as opportunities for students to qualify for employment in a variety of positions within related industries.

A student majoring in a degree option program should, upon completion, be able to meet the standards imposed by local industries for proper placement within the selected job area of the student’s choice.

NOTE: It is highly recommended that each student keep a complete record of work to present for evaluation by university program advisors and/or employers.

**Career Options**
- Architectural/Mechanical Draftspersons;
- Designer/Technicians; Planning Assistants;
- CAD Operators; Interior Design; Facilities Planner; Space Planner; Civil CAD Operators

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

**Highlights**
- State-of-the-art Computer Aided drafting laboratory
- Experience in designing / drafting plans for an annual construction management residential project
- Field trips to and guest lecturers from drafting/design firms
C. ONSTRUCTION M ANAGEMENT TE CNOLOG Y

A.S.—Drafting Technology, Design Drafting

CODE #1086

REQUIRED PROGRAM ............................................................. Units
ARCH 3 Architectural Design and Communication I 3.5
ARCH 5 Design Fundamentals 3
ARCH 6 Architectural Design and Communication II 3.5
ARCH 10 Architectural Design and Communication III 3.5
ARCH 12 Design Awareness 3
ARCH 16 Architectural Working Drawings 4
BIT 57 Introduction to Uniform Building Code 3
DRAFT 51 Basic Technical Drafting 3
DRAFT 66 Introductory Computer-Aided Design Drafting 2
DRAFT 67 Intermediate Computer-Aided Design Drafting 3
DRAFT 74 Advanced Three Dimensional Computer-Aided Design Drafting .................................... 3

TOTAL UNITS REQUIRED ............................................................. 46.5

Suggested Electives: Architecture 30, 32

General Education Graduation Requirements - See page 18.

CERTIFICATE

Design Drafting

CODE #1086

REQUIRED PROGRAM ............................................................. Units
ARCH 3 Architectural Design and Communication I 3.5
ARCH 5 Design Fundamentals 3
ARCH 6 Architectural Design and Communication II 3.5
ARCH 10 Architectural Design and Communication III 3.5
ARCH 16 Architectural Working Drawing 4
CMT 51 Materials of Construction 3
DRAFT 51 Basic Technical Drafting ........................................ 3
DRAFT 66 Introduction to Computer-Aided Design Drafting .......... 2
DRAFT 67 Intermediate Computer-Aided Design Drafting .......... 3
DRAFT 74 Advanced Three Dimensional Computer-Aided Design Drafting .................................... 3

TOTAL UNITS REQUIRED ............................................................. 31.5

SPECIAL STUDIES IN DRAFTING 1-3 Units

(See catalog p. 21)

Acceptable for Credit: CSU

BASIC TECHNICAL DRAFTING 3 Units

Prerequisite: None.

Acceptable for credit: CSU

36 hours lecture, 54 hours laboratory

This is a fundamental drafting course designed for students of the built environment with an emphasis on architectural drafting. Course subject areas include proper use of instruments, geometric constructions, lettering, sketching, dimensioning, orthographic and auxiliary views, paraline drawings, sectioning, detail and assembly drawings, development drawings, graphic reproduction, architectural drawings, symbols and topographic drawings. The course will also include a discussion of career choices.
52 CIVIL DRAFTING TECHNOLOGY 3 Units
Prerequisite: None.
Advisory: Drafting 51.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This introductory course introduces students to the principles and techniques of Civil Drafting. Subject areas covered include: introduction to civil drafting technology, surveying fundamentals, determining location and direction, mapping scales, mapping symbols, legal descriptions of plot plans, contour lines, profiles, highway layout, earthwork, and computerized geographical information systems (GIS) fundamentals.

66 INTRODUCTORY COMPUTER-AIDED DESIGN DRAFTING 2 Units
Prerequisite: None.
Advisory: Drafting 51.
Acceptable for credit: CSU
18 hours lecture, 54 hours laboratory
This course covers the introductory study in computer-aided design drafting with emphasis in the architectural and mechanical fields. Course subject areas will include but not be limited to CADD components, working in the Windows environment, creating and saving files, entity geometry, editing, viewing entities, text/font creation, layering, dimensioning, and plotting. Students will learn software CADD basics and create professional drawing file documents by the conclusion of course.

67 INTERMEDIATE COMPUTER-AIDED DESIGN DRAFTING 3 Units
Prerequisite: Drafting 66
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
Mechanical and architectural computer-aided design drafting with emphasis on intermediate and advanced dimensioning, drawing and documentation. Students will develop floor plans using advanced dimensioning and tolerancing techniques, create reference Blocks/wBlocks, Symbols, Library, Isometric drawing and dimensioning, assigning attributes, generating bill of materials, external referencing, multiple view-ports and introductory three-dimensional creation.

74 ADVANCED THREE DIMENSIONAL COMPUTER-AIDED DESIGN DRAFTING 3 Units
Prerequisite: None.
Advisory: Drafting 67
36 hours lecture, 54 hours laboratory
This course covers the basic and advanced 3-dimensional study in computer-aided design drafting with emphasis in the architectural and mechanical fields. Course subject areas will include 3-D studies in dimensioning, blocking, surface modeling, and viewing in 3-D space through model/drawing development.

98 WORK EXPERIENCE IN DRAFTING 1-4 Units
(See catalog p. 22)
Acceptable for credit: CSU

2000 - 2001 COSUMNES RIVER COLLEGE
Area of Business & Family Science

**Early Childhood Education**

**DEGREES**
A.A.—Early Childhood Education
A.A.—Early Childhood Education, Site Supervisor

**CERTIFICATES**
Early Childhood Education, Assistant Teacher
Early Childhood Education, Associate Teacher
Early Childhood Education, Teacher
Early Childhood Education, Master Teacher
Early Childhood Education, Infant Care
Early Childhood Education, School Age Child Care
Early Childhood Education, Program Management
Early Childhood Education, Family Day Care
Early Childhood Education, Elementary School Teacher Assistant
Early Intervention Assistant I

This CRC program offers a hands-on approach to learning skills in working with young children from birth through the age of 12. Certificates and degrees have been designed to prepare students for employment at the various levels within privately funded child care centers and publicly funded child development programs.

The program meets the course requirements for teachers and directors of private child care programs licensed by the California State Department of Social Services (Title 22). In addition, the program meets the coursework requirements for the Child Development Permit issued by the California Commission on Teacher Credentialing.

**Elementary Teaching**
For the person interested in teaching in a self-contained elementary school classroom, Cosumnes River College has courses leading toward a Liberal Studies major at California State University, Sacramento. Before selecting classes, please check with your counselor to receive the most up-to-date information.

**Secondary Teaching**
In order for a student to prepare for a secondary teaching credential, the student should complete the lower division requirements for the teaching major while completing the transfer general education requirements needed for transfer. A counselor can assist the student in selecting the appropriate courses.

Note: Students planning to enroll in Work Experience or practicum classes (ECE 3, ECE 4, and ECE 48) must show evidence of TB clearance before working with children.

**Early Childhood Career Options**
Preschool Teacher; Infant Care Teacher;
School Age Teacher; Preschool Director;
Infant Care Director; Site Supervisor of Preschool/School Age Programs; Family Day Care Provider; Public School Aide;
Pediatric Worker; Camp Counselor;
Recreational Leader; Nanny; Elementary School Teaching Assistant

Some career options may require more than two years of college study.

**Highlights**
Two AA Degrees and nine certificates
On- and off-campus course offerings
Day, evening, and weekend offerings in 6-, 9-, and 18-week formats
A.A. DEGREES
The Teacher and Master Teacher Certificates, as well as the A.A. Degrees in Early Childhood Education and the Site Supervisor, are aligned with the Child Development Permits issued by California's Commission of Teacher Credentialing (January 1997). California law requires that teachers in state funded child care and development programs possess a Child Development Permit.

DEGREE
A.A.—Early Childhood Education
CODE #1089

REQUIRED PROGRAM ............................................................. Units
ECE 1 Introduction to Early Childhood Education ......................... 3
ECE 3 Principles and Practices in ECE....................................... 4
ECE 4 Advanced Principles and Practices in ECE ....................... 4
ECE 5 Administration of Child Development Centers (3) or
ECE 7 Infant Development and Care (3) or
ECE 8 The Exceptional Child (3) or
ECE 11 Children with Special Needs (3) or
ECE 9 Programs for the School-Age Child (3) ......................... 3
ECE 13 Health and Safety in Child Care Setting ........................ 1
ECE 14 Children's Nutrition, Health & Safety or
FCS 14 Children's Nutrition, Health & Safety ........................... 3
ECE 36 Culture and Diversity in ECE .......................................... 3
FCS 34 Child Development or
PSYCH 34 Child Development ............................................. 3
FCS 35 The Child, The Family, and The Community .................... 3
Plus six (6) units selected from
................................ ................................ ........................................ 6
ART 26 Art and Children (3)
ENGL 39 Children and Literature (3)
MUSM 9 Music for Children (3)
CIS 4 / ECE 29 Computer Skills for Educators (3)
TA 28 Children's Literature and Creative Drama (3)
TOTAL UNITS REQUIRED......................................................... 33

Suggested Electives:
ECE 6, 9, 15, 46, 47; Family & Consumer Science 10, 33;
Music (MU) 30A, 30B, 42A; Spanish 1A, 50A;
Physical Educ. Theory (PET) 24/ECE 24.

General Education Graduation Requirements - See page 18.

DEGREE
A.A.—Early Childhood Education, Site Supervisor
CODE #1330

REQUIRED PROGRAM ............................................................. Units
ECE 1 Introduction to Early Childhood Education ......................... 3
ECE 3 Principles and Practices in ECE....................................... 4
ECE 4 Advanced Principles and Practices in ECE ....................... 4
ECE 7 Infant Development and Care or
ECE 8 The Exceptional Child (3) or
ECE 11 Children with Special Needs (3) ................................. 3
ECE 13 Health and Safety in Child Care Setting ....................... 1
ECE 15 Adv. Coord. and Supervision of Child Devel. Programs .. 3
ECE 36 Culture and Diversity in ECE .......................................... 3
FCS 34 Child Development or
PSYCH 34 Child Development ............................................... 3
FCS 35 The Child, The Family, and The Community ................... 3
ECE 47 Adult Supervision: Mentoring in a Collaborative Learning Setting ...................................................... 2
To be eligible for the Child Development Permit
(Site Supervisor) complete AA degree in ECE. Students must also complete experience requirements for the particular permit for which you are applying. See ECE Department for further information.

Suggested Electives:
ECE 6, 9, 14, 46, 48; Family & Consumer Science 10, 33; Music (MUVI) 30A, 30B, 42A; Spanish 1A, 50A; Physical Ed. Theory (PET) 24/ECE 24, Art 26; English 39; MUSM 9; CIS4/ECE 29; TA 28.

General Education Graduation Requirements - See page 18.

CERTIFICATES

Upon completion of one of the following certificates, and with appropriate documented experience, the student meets the minimum requirements for employment in a privately funded child care program or family day care program. Certificates are designed to meet varying employment levels and focused training with infants and school-age children. These requirements are outlined in Title 22 (Department of Social Services) regulations for child care licensing.

CERTIFICATE
Early Childhood Education, Assistant Teacher
CODE #1344

REQUIRED PROGRAM ............................................................ Units
ECE 1 Introduction to Early Childhood Education ................. 3
ECE 3 Principles and Practices in ECE ................................. 4
ECS 34 Child Development or
PSYCH 34 Child Development ........................................... 3
FCS 35 The Child, The Family, and The Community............... 3
TOTAL UNITS REQUIRED ..................................................... 14

Upon completion, this certificate will allow students entry into the field and with additional units be able to become a fully qualified Associate Teacher (14 unit certificate).

CERTIFICATE
Early Childhood Education, Associate Teacher
CODE #1343

REQUIRED PROGRAM ............................................................ Units
ECE 1 Introduction to Early Childhood Education ................. 3
ECE 3 Principles and Practices in ECE ................................. 4
FCS 34 Child Development or
PSYCH 34 Child Development ........................................... 3
FCS 35 The Child, The Family, and The Community............... 3
ECE 13 Health and Safety in Child Care Setting .................... 1
TOTAL UNITS REQUIRED ..................................................... 14

To be eligible for the Child Development Permit
( Associate Teacher) students must also complete experience requirements for the particular permit for which they are applying. See ECE Department for further information.

122 Early Childhood Education 2000 - 2001 COSUMNES RIVER COLLEGE
### CERTIFICATE
**Early Childhood Education, Family Day Care**
CODE #1093

<table>
<thead>
<tr>
<th>REQUIRED PROGRAM</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 1 Introduction to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 13 Health and Safety in Child Care Setting</td>
<td>1</td>
</tr>
<tr>
<td>ECE 19 Introduction to Family Day Care</td>
<td>1</td>
</tr>
<tr>
<td>ECE 48 Work Experience in ECE</td>
<td>4</td>
</tr>
<tr>
<td>FCS 34 Child Development or PSIYCH 34 Child Development</td>
<td>3</td>
</tr>
<tr>
<td>FCS 35 The Child, The Family, and The Community</td>
<td>3</td>
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<tr>
<td><strong>TOTAL UNITS REQUIRED</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### CERTIFICATE
**Early Childhood Education, Infant Care**
CODE #1094

<table>
<thead>
<tr>
<th>REQUIRED PROGRAM</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 1 Introduction to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 3 Principles and Practices in ECE</td>
<td>4</td>
</tr>
<tr>
<td>ECE 4 Advanced Principles and Practices in ECE or ECE 48 Work Experience in ECE</td>
<td>4</td>
</tr>
<tr>
<td>ECE 7 Infant Development and Care</td>
<td>3</td>
</tr>
<tr>
<td>ECE 13 Health and Safety in Child Care Setting</td>
<td>1</td>
</tr>
<tr>
<td>FCS 34 Child Development or PSIYCH 34 Child Development</td>
<td>3</td>
</tr>
<tr>
<td>FCS 35 The Child, The Family, and The Community</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL UNITS REQUIRED</strong></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>

### CERTIFICATE
**Early Childhood Education, School Age Child Care**
CODE #1098

<table>
<thead>
<tr>
<th>REQUIRED PROGRAM</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 1 Introduction to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 3 Principles and Practices in ECE</td>
<td>4</td>
</tr>
<tr>
<td>ECE 4 Advanced Principles and Practices in ECE or ECE 48 Work Experience in ECE</td>
<td>4</td>
</tr>
<tr>
<td>ECE 9 Programs for the School Age Child (3) or PET 24/ECE 24 Fundamentals of Movement</td>
<td>2-3</td>
</tr>
<tr>
<td>ECE 13 Health and Safety in Child Care Setting</td>
<td>1</td>
</tr>
<tr>
<td>FCS 34 Child Development or PSIYCH 34 Child Development</td>
<td>3</td>
</tr>
<tr>
<td>FCS 35 The Child, The Family, and The Community</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL UNITS REQUIRED</strong></td>
<td><strong>20-21</strong></td>
</tr>
</tbody>
</table>

### CERTIFICATE
**Early Childhood Education, Program Management**
CODE #1097

<table>
<thead>
<tr>
<th>REQUIRED PROGRAM</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 1 Introduction to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 3 Principles and Practices in ECE</td>
<td>4</td>
</tr>
<tr>
<td>ECE 4 Advanced Principles and Practices in ECE or ECE 48 Work Experience in ECE</td>
<td>4</td>
</tr>
<tr>
<td>ECE 5 Administration of Child Development Centers</td>
<td>3</td>
</tr>
<tr>
<td>ECE 13 Health and Safety in Child Care Setting</td>
<td>1</td>
</tr>
<tr>
<td>ECE 14 Children's Nutrition, Health &amp; Safety or FCS 14 Children's Nutrition, Health &amp; Safety</td>
<td>3</td>
</tr>
<tr>
<td>FCS 34 Child Development or PSIYCH 34 Child Development</td>
<td>3</td>
</tr>
<tr>
<td>FCS 35 The Child, The Family, and The Community</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL UNITS REQUIRED</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

### CERTIFICATE
**Early Childhood Education, Elementary School Teacher Assistant**
CODE #1092

For students who would like to work with children in a classroom situation as a teacher assistant under the direction of a credentialed elementary teacher. Designed to prepare students for employment as a teacher assistant; and, for those who wish to become elementary teachers, this certificate provides the opportunity for exploratory classroom experience early in their training.

<table>
<thead>
<tr>
<th>REQUIRED PROGRAM</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 4/ECE 29 Computer Skills for Educators</td>
<td>3</td>
</tr>
<tr>
<td>ECE 13 Health &amp; Safety in Child Care Setting</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 39 Children and Literature or ART 26 Art and Children</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1A College Composition</td>
<td>3</td>
</tr>
<tr>
<td>FCS 34 Child Development or PSIYCH 34 Child Development</td>
<td>3</td>
</tr>
<tr>
<td>H/CD 43 Introduction to Tutor Training</td>
<td>1</td>
</tr>
<tr>
<td>H/CD 45 Tutoring Elementary Students in Reading</td>
<td>3</td>
</tr>
<tr>
<td>MATH 53 Intermediate Algebra</td>
<td>5</td>
</tr>
<tr>
<td>MUSM 9 Music for Children</td>
<td>3</td>
</tr>
<tr>
<td>PET 24/ECE 24 Fundamentals of Games and Rhythms</td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL UNITS REQUIRED</strong></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>
CERTIFICATE
Early Childhood Education Teacher
CODE #1329

REQUIRED PROGRAM .......................................................... Units
Core Courses:
ECE 1 Introduction to Early Childhood Education .............. 3
ECE 3 Principles and Practices in ECE ................................. 4
ECE 4 Advanced Principles and Practices in ECE ................. 4
ECE 7 Infant Development and Care (3) or
ECE 8 The Exceptional Child (3) or
ECE 11 Children with Special Needs (3) or
ECE 9 Programs for the School-Age Child (3) ................. 3
ECE 13 Health and Safety in Child Care Setting ............ 1
ECE 36 Culture and Diversity in ECE .............................. 3

TOTAL CORE UNITS REQUIRED ................................................. 32

GENERAL EDUCATION UNITS ................................................. 16
To be eligible for the Child Development Permit (Teacher) students must complete 16 units in general education categories which meet graduation requirements and with at least one course in each of the following areas: English, Humanities, Social Science, Math/Science. Please refer to the General Education Requirements for a list of acceptable courses. Students must also complete experience requirements for the particular permit for which you are applying. See ECE Department for further information.

TOTAL UNITS REQUIRED ............................................................ 40

CERTIFICATE
Early Childhood Education, Master Teacher
CODE #1328

REQUIRED PROGRAM .......................................................... Units
Core Courses:
ECE 1 Introduction to Early Childhood Education .............. 3
ECE 3 Principles and Practices in ECE ................................. 4
ECE 4 Advanced Principles and Practices in ECE ................. 4
ECE 7 Infant Development and Care (3) or
ECE 8 The Exceptional Child (3) or
ECE 11 Children with Special Needs (3) or
ECE 9 Programs for the School-Age Child (3) ................. 3
ECE 13 Health and Safety in Child Care Setting ............ 1
ECE 36 Culture and Diversity in ECE .............................. 3
FCS 34 Child Development or
PSYCH 34 Child Development ........................................ 3
FCS 35 The Child, The Family, and The Community .......... 3

TOTAL CORE UNITS REQUIRED ................................................. 24

GENERAL EDUCATION UNITS ................................................. 16
To be eligible for the Child Development Permit (Master Teacher) students must complete 16 units in general education categories which meet graduation requirements and with at least one course in each of the following areas: English, Humanities, Social Science, Math/Science. Please refer to the General Education Requirements for a list of acceptable courses. Students must also complete experience requirements for the particular permit for which you are applying. See ECE Department for further information.

TOTAL UNITS REQUIRED ............................................................ 48

Master Teacher Specialization Options Select one (1) six-unit option below:

Infant and Toddler Care .................................................. 6 units
ECE 7 Infant Care and Development (3)
ECE 48 With field or practicum placement in an infant
toddler center (3)

School-Age Care .......................................................... 6 units
ECE 9 Programs for School-Age Children (3)
And one of the following:
PET 24/IBE 24 Fundamentals of Games and Rhythm (2)
1 unit of Physical Education activity
HI CD 45 Tutoring Elementary Students in Reading (3)
ECE 48 With field or practicum placement in a
school-age program (1)

Art with Children .......................................................... 6 units
Art 26 Art and Children (3)
And one of the following:
Art 10 Introduction to Art (3)
Art 14 Design Fundamentals (3)

Music with Children ...................................................... 6 units
MUSM 9 Music for Children (3)
And one of the following:
MUH 9 World Music (3)
MUIV 30A & 30B Beginning Piano (4)
MUIV 42A & 42B Beginning Guitar (4)

Children's Drama and Literature ..................................... 6 units
English 39 Children and Literature (3)
TA 28 Children's Literature and Creative Drama (3)

Children's Health, Safety and Nutrition ......................... 6 units
ECE 14/ FCS 14 Children's Nutrition, Health and Safety (3)
FCS 10 Nutrition (3)

Bilingual/Bicultural Development .................................... 6-7 units
Select one of the following:
ANTH 2 Cultural Anthropology
BUS 15 Managing Diversity in the Workplace
SOC 5 Minorities in America (3)
SPEE 14 Intercultural Communication
And one of the following Foreign Language courses:
French, Spanish or Vietnamese (3-4)

Children with Exceptional Needs ..................................... 6 units
Choose one of the following:
ECE 8 The Exceptional Child (3) or
ECE 11 Children with Special Needs (3)
AND
Choose one of the following:
ECE 48 With field or practicum placement in a special
needs classroom for young children (3) or
One of the following:
Sign Language 1, 2 or 3: American Sign Language (3)

Early Intervention Assistant I
Core units must include:
ECE 7 Infant Development and Care (3) and
ECE 4 Adv. Principles and Practices in ECE (4)
(*with infant/toddler early intervention program)
AND Specialization units include: ................................. 6 units
ECE 6 The Atypical Infant (3) and
ECE 11 Children with Special Needs (3)
CERTIFICATE
Early Intervention Assistant I
CODE #1421

REQUIRED PROGRAM ................................................................. Units
FCS34 Child Development or PSYCH 34 Child Development ...................... 3
FCS35 The Child, the Family and the Community ................................ 3
ECE 1 Introduction to Early Childhood Education ............................... 3
ECE 3 Principles and Practices in ECE ........................................... 4
ECE 4 Advanced Principles and Practices in ECE* or ECE 48 Work Experience in ECE* (*With infant/toddler early intervention program practicum)
ECE 7 Infant Development and Care ............................................. 3
ECE 11 Children with Special Needs ............................................. 3
ECE 13 Health and Safety in the Child Care Setting ............................ 1
ECE 36 Culture and Diversity in ECE .......................................... 3
TOTAL UNITS REQUIRED ................................................................ 27

Early Childhood Education

1 INTRODUCTION TO EARLY 3 Units
CHILDHOOD EDUCATION
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
This course will introduce students to the field of early childhood education, including an overview of the history of the field, current curriculum approaches, and programs serving children from infancy through the school-age years. It reviews the current status of education of young children, with a focus on integrated education. Students will learn and apply skills in observing young children, documenting the work of young children, and interpreting these documents in order to plan subsequent curriculum. Opportunities to observe in a variety of early childhood education settings will be included. This class will prepare students with background and skills they need before entry into the student teaching laboratory classes.

3 PRINCIPLES AND PRACTICES 4 Units
IN EARLY CHILDHOOD EDUCATION
Prerequisite: FCS 34 or PSYCH 34 with a grade of “C” or better; ECE 1 and a current TB clearance
Acceptable for credit: CSU
36 hours lecture, 108 hours laboratory
This laboratory class provides experience working with children in an early childhood setting under the supervision of a mentor teacher. Students will be assigned to the campus child development centers or centers with approved mentor teachers for the supervised laboratory experience. Lectures cover principles and practices behind effective education of young children. Students gain experience in planning, implementing, and interpreting activities with young children; in creating settings for learning with a classroom; and in guiding children’s behavior. Laboratory provides opportunities for applying these key-teaching principles in practical situations. Before beginning lab assignments, students must show proof of TB clearance.

4 ADVANCED PRINCIPLES AND PRACTICES 4 Units IN EARLY CHILDHOOD EDUCATION
Prerequisite: ECE 1, 3; FCS 34 or PSYCH 34 with a grade of “C” or better; and a current TB clearance
Acceptable for credit: CSU
36 hours lecture, 108 hours laboratory
This advanced laboratory class provides experiences in applying principles of overall early childhood curriculum design and effective classroom management. While working with children in an early childhood setting under the supervision of a mentor teacher, students will build on introductory experiences offered in ECE 3. Students will be assigned to the campus child development centers or centers with approved mentor teachers for the supervised laboratory experience. Lecture and laboratory components provide opportunities to plan, provision, and supervise the overall learning setting. Course work is aimed at mastering classroom leadership in the areas of child observation, documentation of children’s work, child assessment, guidance of behavior, group management, collaborative teaching and effective oversight of long-term study projects. Before beginning lab assignments, students must show proof of TB clearance.

5 ADMINISTRATION OF CHILD 3 Units
DEVELOPMENT CENTERS
Prerequisites: FCS 34 or PSYCH 34; and ECE 3 or one year of successful experience as a teacher of preschool children.
Acceptable for credit: CSU
54 hours lecture
This is an introductory course in the elements of program planning, budgeting, supervision and personnel administration for public and private centers and schools serving young children.

6 THE ATYPICAL INFANT 3 Units
Prerequisite: FCS 34 or PSYCH 34 and ECE 7.
Acceptable for credit: CSU
54 hours lecture
This course will examine the developmental characteristics, assessment techniques, methods of intervention, natural environments, community and family resources, and current issues of the atypical infant from birth through age three. Students will understand and practice the early intervention techniques the very young children with special needs and disabilities require in the developmental areas of sensory stimulation and integration, gross and fine motor control, cognitive, language, social and self-help skills. The course will explore the community services and agencies that offer family support as well as the laws related to the atypical infant/toddler. Career and vocational opportunities in the fields related to special needs infants/toddlers and the various roles of the multi-disciplinary teams that develop the IFSP will be examined.
INFANT DEVELOPMENT AND CARE 3 Units
Prerequisite: Family and Consumer Science 34 or Psychology 34.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course teaches the principles and philosophy of infant care for children up to three years of age. The course will cover growth and development, health and nutritional needs, social and emotional needs, cognitive development, language development, development of positive self-image, parent education, community resources and cultural and ethnic diversity. Students will be assigned to the campus Infant/Toddler centers or centers with approved infant mentor teachers for supervised laboratory experience.

THE EXCEPTIONAL CHILD 3 Units
Prerequisite: Family and Consumer Science 34 or Psychology 34.
Acceptable for credit: CSU
54 hours lecture
This course will present the characteristics of exceptional children; assessment techniques and curriculum design; community resources and current issues; observation in public and private school classrooms and agencies. Field trips will be used to support classroom instruction.

PROGRAMS FOR THE SCHOOL-AGE CHILD 3 Units
Prerequisite: Family and Consumer Science 34 or Psychology 34.
Acceptable for credit: CSU
54 hours lecture
This program will present the fundamentals of planning, implementing and evaluating programs for before- and after-school care of school-age children (K-6). Course emphasis is on developmental levels, age-appropriate activities and day-to-day program operation. Field trip may be utilized to enhance classroom instruction.

CHILDREN WITH SPECIAL NEEDS 3 Units
Prerequisite: Family and Consumer Science 34 or Psychology 34.
Acceptable for credit: CSU
54 hours lecture
This course is designed to provide a broad overview of the characteristics, assessment techniques, methods of intervention, natural environments, community and family resources, and current issues of young children from birth to age eight with special needs and disabilities. The focus is to increase the awareness and understanding of children's individual needs in an early childhood setting and to provide practical information to those currently involved with children with special needs. Observations in public and private children's centers, schools and agencies are required.

CHILDREN'S NUTRITION, HEALTH AND SAFETY 3 Units
Prerequisites: None. (Family and Consumer Science 10 recommended. Not open to students who have received credit in Family and Consumer Science 14.)
Acceptable for credit: CSU
54 hours lecture
Basic nutritional, health and safety needs of children from the prenatal period through school age. Identification of nutrients in food as they affect physical and mental development. Emphasis on improving the nutritional status of children. Preparations of visual aids and projects relating to children's nutrition, health and safety.
15 ADVANCED COORDINATION
AND SUPERVISION
OF CHILD DEVELOPMENT PROGRAMS
(formerly Coordination and Supervision of Child Development Programs)
Prerequisite: Family and Consumer Science 34 or Psychology 34, and Early Childhood Education 3 or one year of successful experience as a teacher of preschool children; and Early Childhood Education 5.
Acceptable for credit: CSU
54 hours lecture
This is an advanced course in administration and coordination of multi-faceted Child Development Programs. The emphasis of the course will be on publicly funded programs and personnel management. This course meets the requirements of the Education Code under Title 5, and the Commission of Teacher Credentialing.

19 FAMILY TO FAMILY:
INTRODUCTION TO FAMILY CHILD CARE
Prerequisite: None.
Acceptable for credit: CSU
18 hours lecture
This course is an orientation to Family Child Care including local regulations, health and safety, curriculum, behavior management, and business requirements of in-home child care services.

24 FUNDAMENTALS OF
MOVEMENT AND RHYTHM IN
EARLY CHILDHOOD EDUCATION
Prerequisite: None. (Not open to students who have received credit for Physical Education Theory 24).
Acceptable for credit: CSU
18 hours lecture, 54 hours laboratory
This course is designed for early childhood, elementary education, and recreation majors. Recommended for physical education majors. Early childhood education, elementary and lead-up games for individuals and teams sports, stunts, tumbling, and elementary and culturally diverse rhythms and dances will be practiced.

29 COMPUTER SKILLS FOR EDUCATORS
Prerequisite: None. (Not open to students who have received credit for Computer Information Science 4).
Advisory: Business 41
54 hours lecture
This course is designed for educators of young children. The course will provide a comprehensive overview of the use of computer technology in the classroom in order to enhance the education advancement of the child and facilitate ease of instruction and administration for the teacher. The course will provide hands-on experience in the use of computer applications, educational software, and problem-solving skills.

36 CULTURE AND DIVERSITY
IN EARLY CHILDHOOD EDUCATION
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
This course covers culturally responsive care and education in early childhood settings. It includes the study of child-rearing and communication styles as they vary across the diverse cultures such as African American, Latino, Asian American, and others represented in the classroom and as they impact a child’s development. Promoting equity for all aspects of human diversity—culture, race, ethnicity, gender, sexual orientation, ability, and age—is explored. Teaching strategies which prevent and eliminate the development of prejudice and racism in growing children will be covered. Included are strategies for helping children negotiate and resolve conflicts caused by cultural and ability differences.

46 TEACHER AIDE
1-4 Units
Prerequisite: Family and Consumer Science 34 or Psychology 34.
Acceptable for credit: CSU
Completion of 9 hours lecture and 27 hours in-class tutoring equals one unit of credit
This course will present students with an in-depth understanding and greater knowledge of techniques and skills of some facet of early childhood education. May be repeated for a maximum of four units.

47 ADULT SUPERVISION: MENTORING IN
A COLLABORATIVE LEARNING SETTING
Prerequisite: None
36 hours lecture
This course is a study of the methods and principles of collaborative learning, with emphasis on supervising adults working in child care centers. Emphasis is placed on the role of a mentor who functions to guide the teaching team while simultaneously addressing the needs of children, parents and their staff. This course satisfies the adult supervision requirement for receiving a supervising teacher permit from the California Commission on Teacher Credentialing.

48 WORK EXPERIENCE
IN EARLY CHILDHOOD EDUCATION
(See catalog p. 22)
Acceptable for credit: CSU
Note: Before beginning lab assignments with children, students must show proof of TB clearance.

49 SPECIAL STUDIES
IN EARLY CHILDHOOD EDUCATION
(See catalog p. 21)
Acceptable for credit: CSU
52 SPECIAL TOPICS IN EARLY CHILDHOOD EDUCATION .5 - 4 Units

Prerequisite: None.
Acceptable for credit: CSU
18 hours lecture, or 54 hours laboratory equals one unit of credit
Designed to give students an opportunity to study topics in Early Childhood Education which are not included in current course offerings. Topics may include, but are not limited to: Management of Family Day Care Homes; Guidance of the Special Child in Everyday Living; Behavior and Discipline; Children in Crisis; The Single Parent Family; and Cross-Cultural Experiences with Children and Families. May be repeated for credit providing there is no duplication of topics.

90 PARENTING THROUGH PARTICIPATION 1 Unit

Prerequisite: None
9 hours lecture, 36 hours laboratory
This course is primarily designed for student parents who have their children enrolled in CRC's Child Development Center, but others interested in learning parenting skills by practicing are also encouraged to enroll. May be repeated for a maximum of four units.

See next page for a special Department / Course Certificate Matrix
| ECE, Assistant Teacher                                | 7          | X | . | . | X | . |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1                          |
| ECE, Associate Teacher                                | 14         | X | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | x                          |
| ECE, Filled Day Care                                  | 15         | X | . | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 4                          |
| ECE, Infant Care                                      | 21         | X |   |   | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 4*                         |
| ECE, School Age Child Care                           | '20-21     | X | . | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 4*                         |
| ECE, Program Management                              | 24         | X |   |   | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 4                          |
| Early Intervention Assistant                         |            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4*                         |
| ECE, Teacher (CD Permit)                              | 40         | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | +16 Gen. Ed. Units          |
| ECE, Master Thacher (CD Permit)                       | 148        | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | +6 Specialization + 16 Gen. Ed. |
| AA Degree in ECE 33 major + Gen Ed=60                | 33         | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | +Selected electives         |
| AA Degree in ECE/ Site Supervisor (CD Permit)        | 32         | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 48 Gen. Ed. Units           |

* = Work Experience placement related to specific age or group

or=OPTION - See Certificate program description
Area of Business & Family Science

**Economics**

Combines with business, computer information science, journalism, human services, political science, social science, or history for an excellent background in any career field.

This CRC program studies how people and societies produce various commodities and distribute them for consumption, now or in the future. CRC's economics offerings include the study of the American economic system, using techniques for the analysis of contemporary economic problems. There is an emphasis on developing the ability to exercise sound judgment in evaluating public policy issues.

Career Options
- Accountant; Arbitrator; Attorney;
- Budget Analyst; Business Analyst; Business Conditions; Forecaster; Commodity Economist; Commodity Price Forecaster;
- Development Economist; Economic Analyst; Economic Forecaster; Industrial Relations Specialist; Investment Analyst; Labor Economist; Macro Economist; Manpower Economist; Natural Resource Economist; Operations Research Analyst; Project Economist; Research Economist

Most career options require more than two years of study.

Highlights
- Knowledgeable instructors and professionals in their fields
- Good general overview and conceptual framework of economic issues
- Opportunity to combine with business and other related areas of study for a more comprehensive education
- Transfer opportunities
- A lab with tutorial assistance
1A PRINCIPLES OF ECONOMICS 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This is a graphical and functional analysis of the economy as a whole. It focuses on the economy's well-being, problems, and possible solutions. Major topics include: market demand and supply; macroeconomic sectors, goals, and problems (unemployment, inflation, business cycles, and deficits); the economy's output and price level; aggregate demand, aggregate supply, and equilibrium; and macroeconomic policies (fiscal and monetary) aimed at solving problems and stabilizing the economy. Related topics such as international trade, international finance, and economic growth are also discussed. Course work includes solving algebraic equations and graphing straight and curvilinear lines as taught in intermediate algebra. (CAN ECON 2)

1B PRINCIPLES OF ECONOMICS 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course is a graphical and functional analysis of the units (sectors) making up the economy. It focuses on the sectors' interactions, microeconomic goals, problems, and possible solutions. Major topics include: market demand and supply; households' choices; production, costs, and profits; firms' choices; output and price determination in various goods and factor markets, microeconomic goals (efficiency and equity) and problems (uncertainty, market failures, and unequal income distribution). Related topics such as public choice and international trade are also discussed. Course work includes solving algebraic equations and graphing straight and curvilinear lines as taught in intermediate algebra. (CAN ECON 4)

14 CONCEPTS IN PERSONAL FINANCE 3 Units
Prerequisite: None. (Not open to students who have completed Business 14.)
Advisory: Business 60
Acceptable for credit: CSU
54 hours lecture
This course is designed to assist individuals in analyzing their financial affairs. Elements and conceptual basis of financial planning, analysis, and decision making in areas of budgeting, taxes, borrowing, money management, insurance, investments, and retirement will be examined with an emphasis on principles to develop students' economic decision making. Students will be using mathematical concepts as well as reading and interpreting written and oral instructions. The course provides a solid base for a career in financial planning services.

49 SPECIAL STUDIES IN ECONOMICS 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU, UC — See Counselor

55 INTRODUCTION TO ECONOMICS 3 Units
Prerequisite: None.
54 hours lecture
This course introduces the purpose, terminology, and basic concepts of economic theory. It examines the fundamental economic problem of scarcity and describes how our society is organized to deal with scarcity. It considers some of the problems (unemployment, inflation, national debt, poverty, crime, pollution, etc.) that economic theory may help explain.
Area of Science, Mathematics & Engineering

Engineering

Pre-Professional Transfer Opportunities

DEGREE A.A.—Science and Mathematics (see Science ... page 258)

CRC's program provides the foundation in mathematics, physics, and engineering necessary to transfer to a four-year institution and complete a bachelor's degree in engineering.

Engineering involves the application of scientific and mathematical principles needed to solve practical technical problems.

The first two years of engineering courses for all engineering degrees are very similar. Students should consult the lower division requirements of the institution to which they wish to transfer.

Career Options
Aerospace Engineer; Architectural Engineer; Chemical Engineer; Civil Engineer; Computer Engineer; Electrical Engineer; Mechanical Engineer

Most career options require a B.S. degree. Classes beyond the Associate Degree level may be required for preparation for transfer to a university program.

Highlights
Challenging and rewarding classes that transfer to four-year universities

A Mathematics, Engineering and Science Achievement (MESA) program

Engineering Transfer Program
Most lower division engineering programs require the following CRC courses:

Computer Information Science 33;
Mathematics 9A, 9B, 9C, 11;
Physics 4A, 4B, 4C;
Chemistry 1A;
Engineering 17, 35, 45.

Recommended Courses:
Engineering 2 (Introduction to Engineering) is an introduction to the field of engineering and is recommended for all potential engineering students.

Engineering 10 (Survey Measurements) is primarily designed for civil engineering majors but is recommended in some other programs.

Engineering 27 (Engineering Graphics) is primarily for civil and mechanical majors but is also recommended in some other programs.

Math 35 (Introduction to Linear Algebra)
Statistics 1 (Introduction to Probability and Statistics)
Engineering

2 INTRODUCTION TO ENGINEERING 1 Unit
Prerequisites: None.
Acceptable for credit: CSU, UC
18 hours lecture
An introductory course about the training and schooling, type of work, salaries and benefits, and employment opportunities of journeyman mechanics, technicians, contractors, engineers, and R&D specialists. The course emphasizes on-the-job relationships between these five groups of technical-engineering employees, the effects of their work on society, and concurrent developments, trends, and estimates of future contributions that will improve the quality of daily living. A course primarily for first-year students. Recommended for all engineering majors.

10 ENGINEERING SURVEY MEASUREMENTS 4 Units
Prerequisites: Completion of high school trigonometry or Mathematics 20 with a grade of "C" or better. Completion of or concurrent enrollment in basic drafting course. (Not open to students who have received credit for Construction Management Technology 56.)
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
The theory and practice of measurements for distance, elevations and angles, analysis and adjustment of errors, traverse calculation and adjustments, and boundary surveying are covered in this course. This course is designed for engineering students and is usually required for civil engineering majors. (CAN ENGR 10)

17 INTRODUCTION TO ELECTRICAL 3 Units
CIRCUITS AND DEVICES
Prerequisite: Physics 4B
Acceptable for credit: CSU, UC
54 hours lecture, 18 hours laboratory
This course includes analysis of circuits with resistors, inductors and capacitors; network reduction and analysis techniques; transient and steady state response to constant, exponential, and sinusoidal excitation functions; phasor concepts and complex frequency; and power.

27 ENGINEERING GRAPHICS 3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
36 hours lecture, 72 hours laboratory
This course covers the representation of three-dimensional objects on two-dimensional drawings, solution of engineering problems by generating views of objects from appropriate points of view (descriptive geometry), and an introduction to computer-aided drafting/design. The course is designed to provide engineers with graphical tools to effectively develop and communicate engineering ideas. Primarily for Mechanical and Civil Engineering majors. (CAN ENGR 2)

35 STATICS 3 Units
Prerequisites: Physics 4A and Mathematics 9B with grades of "C" or better
Acceptable for credit: CSU, UC
54 hours lecture
A study of two- and three-dimensional analysis of force systems in static (stationary) engineering problems, including vector analysis, centroids, trusses, machines, beams, friction, and moments of inertia. Necessary for most engineering majors. (CAN ENGR 8)

45 PROPERTIES OF MATERIALS 3 Units
Prerequisites: Chemistry 1A and Physics 4A with a grade of "C" or better.
Acceptable for credit: CSU, UC
36 hours lecture, 72 hours laboratory
This is an introductory course on the properties of engineering materials and their relation to the internal structure of the material. Topics to be covered include atomic and crystal-line structure, imperfections, alloys, phases and phase diagrams, steels, polymers, composites, and corrosion. Laboratory exercises will demonstrate the concepts discussed in lecture and familiarize the student with typical materials testing (procedures, analysis) in industry.

49 SPECIAL STUDIES 1 - 3 Units
IN ENGINEERING
(See catalog p. 21)
Acceptable for credit: UC—See Counselor
Area of Humanities & Social Science

**English**

**DEGREE** A.A.—English

The CRC English department teaches skills that are universal to every other discipline. Taking courses in English increases the student's chances of success in every other area the student chooses to pursue. The ability to read effectively and to write expressively will prove invaluable for any CRC student.

**Career Options**
- Advertising; Business; Civil Servant;
- Columnist/Journalist; Contract Specialist;
- Editor/Evaluator; Information Specialist;
- Insurance; Interpreter;
- Lawyer; Lexicographer; Legislative Assistant;
- Librarian; Manager;
- Methods Analyst; Program Developer;
- Public Relations; Publisher; Researcher;
- Teacher; Technical Writer;
- Writing Consultant

Some career options may require more than two years of college study.

**Highlights**
- Numerous composition and literature courses
- Composition designed for all levels of ability
- Creative writing and writing for publication
- Exemplary faculty: creative, dedicated and innovative

**DEGREE**

A.A.—English

**CODE #1403**

The English degree offers courses in literature, composition, and creative writing designed to enhance communication skills, deepen cultural awareness, provide a breadth of knowledge appropriate for many degree and vocational programs, and prepare students for transfer to four-year institutions.

**REQUIRED PROGRAM**

<table>
<thead>
<tr>
<th>Core Requirements: Nine (9) units</th>
<th>Units</th>
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<tbody>
<tr>
<td>ENGL 1A</td>
<td>College Composition (3)</td>
</tr>
<tr>
<td>ENGL 1B</td>
<td>College Composition and Literature (3) or ENGL 1C</td>
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<tr>
<td>ENGL 30, 31, 35 or 36</td>
<td>American or English Literature (3)</td>
</tr>
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<table>
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<tr>
<th>Electives - Twelve (12) units selected from the following</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 10</td>
<td>Service Learning: Tutoring Elementary Students in Reading (3)</td>
</tr>
<tr>
<td>ENGL 15</td>
<td>Creative Writing (3)</td>
</tr>
<tr>
<td>ENGL 15A</td>
<td>Fiction Writing Workshop (3)</td>
</tr>
<tr>
<td>ENGL 15B</td>
<td>Poetry Writing Workshop (3)</td>
</tr>
<tr>
<td>ENGL 15C</td>
<td>Creative Non-Fiction Writing Workshop (3)</td>
</tr>
<tr>
<td>ENGL 17C</td>
<td>College Literary Magazine (3)</td>
</tr>
<tr>
<td>ENGL 17D</td>
<td>College Literary Magazine (3)</td>
</tr>
<tr>
<td>ENGL 18</td>
<td>Gender &amp; Ethnicity in Contemporary American Literature (3)</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED** 21

**Notes:**
- The same class may not be used to fulfill both core and elective requirements.
- Associate in Arts Degree (A.A.) may be obtained by completion of the Required Program, plus General Education requirements, plus sufficient electives to meet a 60-unit total.

General Education Graduation Requirements - See page 18.
### 1A COLLEGE COMPOSITION 3 Units
Prerequisite: Eligibility is determined by the assessment process, or completion of English 57 with a grade of “C” or better.
Acceptable for credit: CSU, UC
54 hours lecture
Instruction in critical thinking, reading and writing. The course is designed to help the student demonstrate, in both argumentative and expository prose, critical thinking, clear organization, precise diction, and appropriate style. Throughout the course, fluency and correctness are emphasized.
(CAN ENGL 2) (WITH ENGL 1B = CAN ENGL SEQ A)

### 1B COLLEGE COMPOSITION 3 Units
Prerequisite: English 1A
Acceptable for credit: CSU, UC
54 hours lecture
Introduction to literature and writing about literature through the development of essays based upon the assigned readings.
(CAN ENGL 4) (WITH ENGL 1A = CAN ENGL SEQ A)

### 1C ADVANCED COMPOSITION 3 Units
Prerequisite: English 1A with a grade of “C” or better
Acceptable for credit: CSU, UC
54 hours lecture
This course is designed for students who have had English 1A and who desire further instruction in the techniques of effective critical thinking as expressed in written argument and in the major principles of advanced composition and rhetoric.

### 10 SERVICE LEARNING: TUTORING 3 Units
Prerequisite: English 271 or English 57 with a grade of “C” or better or placement through assessment process
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course offers an afternoon program in conjunction with the SMART Kids program. Students will be assigned to selected elementary schools and learn to be effective reading tutors for children reading below their level. The course may be taken twice for credit. It is recommended for students majoring in teacher preparation and Early Childhood Education. Successful students will be inducted into the Student Literacy Corps in recognition of their service to youth. By the end of the third week, students must be fingerprinted and have passed a TB test. These procedures will be available at no cost to the student.

### 12 BOOK LENGTH LITERATURE FOR GROUP DISCUSSION 1 Unit
Prerequisite: None.
Acceptable for credit: CSU
18 hours lecture
Designed to introduce students to book length literature, this course will allow students to read, analyze, and discuss both fiction and non-fiction works by a wide variety of authors. Using a seminar style, the class will meet approximately six times to explore the books. The instructor will select the first book; together, as a class, students will choose the remaining works for reading and discussion from an instructor approved list. This course may be taken twice for credit.

### 14A WRITING FOR PUBLICATION 3 Units
Prerequisite: English 1A
Acceptable for credit: CSU
54 hours lecture
This course offers a marketing approach to selling nonfiction for publication. Emphasis will be on developing a saleable magazine article; finding ideas; analyzing magazines; writing a query letter; researching and interviewing; organizing, writing and illustrating an article. Individual and class criticism of student work will be featured.

### 14B WRITING FOR PUBLICATION 3 Units
Prerequisite: English 1A (English 14A highly recommended)
Acceptable for credit: CSU
54 hours lecture
This course offers a marketing approach to selling nonfiction writing. The course surveys consumer, general interest and specialty magazines, including trade journals, company publications, regional magazines and local markets. Activities will include the following: reporting on magazine categories; analysis of a variety of magazine article styles and types; writing and sending articles to the marketplace; individual and class criticism of student manuscripts. Emphasis will be placed on increasing freelance writing publication. The course may be taken twice for credit, with the understanding that many universities and four-year colleges place a nine-unit limit on transfer credit from advanced composition courses (English 14A, 14B and 15).

### 15 CREATIVE WRITING 3 Units
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC — See Counselor
54 hours lecture
This course is designed to guide students in creative writing through experience in three genres: short story, poetry, and plays. The course includes analysis of literary models (professional writings in each genre), individual and class criticism of work in a workshop mode, and lecture on and discussion of literary techniques in each genre. This course may be taken twice for credit or once in combination with English 15A and/or English 15B. (CAN ENGL 6)
15A FICTION WRITING WORKSHOP 3 Units
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC — See Counselor
54 hours lecture
This is a creative writing course designed for students who wish to concentrate on fiction writing. Through lecture, discussion, assigned reading, writing exercises, short story (or novel chapter) writing, and critiques of student writing in a workshop mode, the student will examine critically the elements of literary creation. The students will keep a journal and prepare a portfolio of their work. This course may be taken twice for credit, but only once in combination with English 15.

15B POETRY WRITING WORKSHOP 3 Units
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC — See Counselor
54 hours lecture
This is a creative writing course for students who wish to concentrate on poetry writing. Through lecture, discussion, assigned reading, writing exercises, poetry writing, and critiques of student writing in a workshop mode, the students will examine critically the elements of literary creation. The students will keep a journal and prepare a portfolio of their work. This course may be taken twice for credit, but only once in combination with English 15.

15C CREATIVE NON-FICTION WRITING WORKSHOP 3 Units
Prerequisite: Eligibility for English 1A.
Acceptable for credit: CSU, UC — See Counselor
54 hours lecture
This is a creative writing course concentrating on the literary essay. The class focuses on constructive in-class analysis of personal essays written by students. Students will write and critically examine essays such as the memoir, autobiography, reflective, and philosophical that have a literary, stylistic component. The class will also emphasize multi-cultural, multi-generational, mythological, and ecological topics. Students will prepare a portfolio of completed work. This course may be taken twice for credit, but only once in combination with English 15.

17D COLLEGE LITERARY MAGAZINE 4 Units
Prerequisite: None.
Advisory: Eligibility for English 1A
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
In this production semester, the course provides experiences and techniques in producing the college literary magazine, from selecting, writing, and editing manuscripts to actual formation of camera-ready final draft for publication. Discussions include text and art layout, CD-ROM development, and Internet applications. Access is provided to computers, laser printers, and other journalism equipment. A campus literary reading will be presented. This course may be taken twice for credit.

18 GENDER AND ETHNICITY IN CONTEMPORARY AMERICAN LITERATURE 3 Units
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC
54 hours lecture
This course examines some of the myths underlying the western world view, and recognizes diversity and commonality in myths from Middle Eastern, Native North American, African, Asian, and South American cultures. Students analyze, contrast, and compare myths on topics including the goddess culture, creation, the hero's journey, Judaeo-Christian themes, the dying god, and psychological applications. From this process, they will gain an understanding of ethnocentrism, ethnicity and racism and the impact of these on the American experience.

26 MYTHOLOGIES OF THE WORLD 3 Units
Prerequisite: Eligibility for English 1A.
Acceptable for credit: CSU, UC
54 hours lecture
This course examines some of the myths underlying the western world view, and recognizes diversity and commonality in myths from Middle Eastern, Native North American, African, Asian, and South American cultures. Students analyze, contrast, and compare myths on topics including the goddess culture, creation, the hero's journey, Judaeo-Christian themes, the dying god, and psychological applications. From this process, they will gain an understanding of ethnocentrism, ethnicity and racism and the impact of these on the American experience.

27 WOMEN IN LITERATURE 3 Units
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC
54 hours lecture
This course is designed for women and men who are interested in examining the roles women have occupied in literature, both as writers and as protagonists. Emphasis will be placed on literature that develops protagonists and explores literary themes that focus on women's experiences in childhood, adolescence, marriage, childbirth and child rearing, death, love, dependence, independence, and their own creativity. Female authors and protagonists from Western, Eastern, and Third World countries will be included. Male authors may also be included. Over the course of the semester, students will examine issues of ethnicity, ethnocentrism, racism, ageism, classism, gender inequity, and religious differences that are raised in the literature under discussion. In order to develop a sense of cultural tolerance to such issues, the literature will include a variety of genres, such as short stories, novels, plays, and poetry, the emphasis to be determined by the instructor.
29 CONTEMPORARY THIRD
WORLD LITERATURE
(formerly English 20, Contemporary Third World Literature)
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC
54 hours lecture
This course is an introduction to literature of writers from Africa, Central and South America, Asia and the Middle East. Approached through the reading and discussion of all genre, basic elements of literature interpretation will be stressed to enhance understanding of the world view and culture of writers often not covered in other literature classes. A special effort will be made to sample recent Nobel Prize winners from each area of the world.

30 AMERICAN LITERATURE
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC
54 hours lecture
Survey of the more representative works in American literature from the beginning through the Civil War. (CAN ENGL 14) (WITH ENG 31, CAN ENGL SEQ C)

31 AMERICAN LITERATURE
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC
54 hours lecture
Survey of the representative works in American literature after the Civil War. (CAN ENGL 16) (WITH ENGL 30, CAN ENGL SEQ C)

33 WORLD LITERATURE
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC
54 hours lecture
This course will acquaint students with a diverse range of literature from the Ancient World through the Renaissance. Students will identify the commonalities and differences in the myths, epic poetry, philosophy, sacred texts, lyric poetry, prose, and drama of early Middle Eastern, Asian, African, South American, European, and North American literatures. Moreover, students will analyze issues of ethnicity, ethnocentrism, racism, ageism, classism, gender inequity, and religious difference in this literature as a means of developing a common foundation for cultural awareness and tolerance. From this process, students will develop an appreciation for world literature and an understanding of how ethnocentrism, ethnicity, sexism, and racism have affected our institutions, attitudes, and thoughts.

34 WORLD LITERATURE
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC
54 hours lecture
Survey of significant masterpieces of Eighteenth, Nineteenth, and Twentieth Century literature.

35 ENGLISH LITERATURE
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC
54 hours lecture
Study of significant works of major English authors from Beowulf through Samuel Johnson, with consideration of the most important aspects of English literary history. (CAN ENGL 8) (WITH ENGL 36, CAN ENGL SEQ B)

36 ENGLISH LITERATURE
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC
54 hours lecture
Survey of significant works of major English authors from the beginning of Romanticism in the Eighteenth Century to the poetry of Dylan Thomas in the Twentieth Century, with consideration of the important aspects of English literary history. (CAN ENGL 10) (WITH ENGL 35, CAN ENGL SEQ B)

39 CHILDREN AND LITERATURE
Prerequisite: None
Acceptable for credit: CSU
54 hours lecture
This course is designed primarily for parents, prospective teachers, nursery school workers and those in frequent contact with children and/or interested in literature written for children. Topics include wide reading of historical and contemporary children’s literature, criteria for selection, and practice in storytelling and oral reading.

40 AFRICAN AMERICAN LITERATURE
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC
54 hours lecture
A survey of the most representative African American writers from the slave narrative to the present. The comprehensive literary study includes analysis of significant historical and cultural influences.

42 INTRODUCTION TO THE SHORT STORY
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC
54 hours lecture
Students will read, analyze, and discuss short stories by a wide variety of writers. Reading will emphasize American and British writers but will include authors from other countries as well. Thematic emphasis will focus on the connections between literature and the human condition.
46 TEACHER AIDE 1-4 Units
Prerequisite: The appropriate advanced class
Acceptable for credit: CSU
Completion of 9 hours lecture and 27 hours in-class tutoring equals one unit of credit
This course is for students who want to develop an in-depth understanding of various aspects of language such as language function, composition or reading. Students will also learn to work with individual and small groups of learners. This open entry and exit class may be taken two times for credit with maximum units to be earned, six.

47A INTRODUCTION TO SHAKESPEARE AND FILM 3 Units
Prerequisite: Eligibility for English 1A
Acceptable for credit: CSU, UC
54 hours lecture
In this course, students will draw connections between traditional and contemporary literary genres as they read William Shakespeare's plays and critically analyze film versions of these plays. Students will read and analyze a selection of Shakespeare's histories, comedies, tragedies, and romances in the context of Elizabethan drama. Then they will view a variety of cinematic interpretations of these plays and compare and contrast such elements as plot, character, theme, staging, and critical and directorial interpretation.

49 SPECIAL STUDIES IN ENGLISH 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU, UC-See Counselor

57 COLLEGE WRITING 4 Units
Prerequisite: Eligibility is determined by the assessment process or completion of four units of English 256 with a grade of "C" or better, or completion of ESL 2W with a grade of "C" or better.
72 hours lecture
This writing course, designed to meet writing proficiency requirements for graduation and to prepare the student for English 1A, will focus on reading and writing as integrally related skills. Students will study and practice such things as the writing process, summarizing, critical thinking, creating clear/varied correct sentences and incorporating sources as they develop the skills necessary to write a variety of focused, developed, organized essays. Students will be responsible for writing at least six full-process essays (500 word minimum). This course may be taken two times for credit. The course includes a departmental final.

59 WRITING FOR THE CORRECTIONS OFFICER 3 Units
Prerequisite: Eligibility is determined by the assessment process, or completion of four units of English 256 with a grade of "C" or better, or completion of ESL 2W and ESL 2R with grades of "C" or better.
54 hours lecture
This is an introductory course emphasizing the practical aspects of gathering, organizing and preparing written reports for correctional activities on local, state, and federal levels. It will cover the techniques of communicating facts, information, and ideas effectively in a simple, clear, and logical manner for various types of criminal justice system reports, letters, memoranda, directives, and administrative reports. Students will gain practical experience in note taking, report writing, and presenting testimony in court. The course is designed to meet the writing proficiency requirement for graduation and to prepare students for English 1A. This course may be taken two times for credit with the recommendation of the instructor.

60 PRACTICAL COMMUNICATION 3 Units
Prerequisite: Eligibility is determined by the assessment process or completion of four units of English 256 with a grade of "C" or better, or completion of ESL 2W and ESL 2R with grades of "C" or better.
54 hours lecture
The course provides instruction in analyzing and writing technical communication and reports, the techniques of which can be used for career and/or college work. Grammar instruction will be directed to help the student write concise and direct sentences, the type needed for technical communication. The course is designed to meet the writing competency requirement for graduation or to prepare students for English 1A. This course may be taken two times for credit with the recommendation of the instructor.

72 CRITICAL READING 3 Units
Prerequisite: Placement will be determined by the assessment process, or completion of English 271 with a grade of "C" or better, or completion of ESL 2W and ESL 2R with grades of "C" or better.
Advisory: Completion of English 256 with a grade of "C" or better.
54 hours lecture
This course covers theory and practice of reading skills needed for proficient academic performances with emphasis on the following: 1) critical and analytical evaluation of printed material, 2) vocabulary development, 3) proficient comprehension skills, 4) development of flexible reading rate, 5) application in textbook, fiction, and nonfiction reading. It may be taken twice for credit with the recommendation of instructor. This course meets the Reading Competency requirement for the A.A. and A.S. degrees.

75 TECHNICAL READING 3 Units
Prerequisite: Placement will be determined by the assessment process, or completion of English 271 with a grade of "C" or better, or completion of ESL 2W and ESL 2R with grades of "C" or better.
Advisory: Completion of English 256 with a grade of "C" or better.
54 hours lecture
This course is designed to refine student's ability to read, understand and respond to college-level textbooks across the curriculum. Activities emphasize discipline-based vocabulary, reading strategies, critical thinking, interpretation of figures, facts, and data and reading rates as they relate to academic success. This course meets the Reading Competency requirement for the A.A. and A.S. degrees.
201 SPELLING 1 Unit
Prerequisite: None
18 hours lecture
This course consists of phonetic principles and basic spelling rules with intensive practice in their application. A unit of credit is awarded for each 18 hours of instruction. This course is graded on a credit/no credit basis. English 201 may be taken two times for credit.

202 BASICS OF VOCABULARY 1.5 Units
Prerequisite: None
27 hours lecture (9 weeks)
This course is for vocabulary improvement, specializing in the study of prefixes and other word parts. Graded on a credit/no credit basis. May be taken two times for credit with the recommendation of the instructor.

203 BASICS OF SENTENCE STRUCTURE 1.5 Units
Prerequisite: None
27 hours lecture (9 weeks)
This course offers training in grammar, sentence building, correct usage, and punctuation. Recommended for students who wish to review basic principles of standard English as preparation or reinforcement for English 57 or English 1A. Graded on a credit/no credit basis. May be taken two times for credit.

252 READING AND WRITING LABORATORY .5 - 1 Unit
Prerequisite: None.
Advisory: For students whose second language is English, completion of or concurrent enrollment in ESL 1W/1R or above, or placement in an appropriate English course through the assessment process.
27-54 hours laboratory
This laboratory course provides assistance in reading and writing skills to students in all subject areas. Students may enter the course at any time during the first 12 weeks of the semester and earn either .5 or 1 unit. Students may repeat the course earning a maximum of six units. This course is graded on a credit/no credit basis. English 252 is recommended for students who are encountering difficulties in reading, writing, spelling, sentence structure, paragraph or essay structure, and who would benefit from individual tutor/instructor assistance.

254 WRITING CENTER BASIC SKILLS .5 - 3 Units
Prerequisite: Concurrent enrollment in English 255/256
27-162 hours laboratory
Individualized instructional modules designed to help the student acquire or improve writing skills in specific areas. Course offerings vary, depending upon the student’s needs and abilities. A partial list includes the following: Parts of Speech, Punctuation, and Dictionary Use (non-degree applicable modules). This course is graded on a Credit/No Credit basis. Writing modules may not be repeated for credit and are not substitutes for English 255, 256, 57 or 1A, or for any of the ESL courses. Students may register up to the 14th week of the semester. Scheduling is flexible, to be agreed upon by the student and staff. May be repeated for credit up to a maximum of 6 units.

255 WRITING SKILLS 4 Units
Prerequisite: None
72 hours lecture
This writing course, designed to prepare the student for English 256, will focus on reading and writing as integrally related skills. Students will study and practice such things as reading comprehension, the writing process, critical thinking, and creating clear and correct sentences as they develop the skills necessary to write a variety of focused, developed, organized paragraphs and/or short essays. Students will be responsible for writing at least eight full-process paragraphs/essays. This course may be taken two times for credit. It may include a departmental final.

256 DEVELOPMENTAL WRITING 4 Units
Prerequisite: Eligibility is determined by the assessment process, or completion of English 255 with a grade of “C” or better.
72 hours lecture
This writing course, designed to prepare students for English 57, will focus on reading and writing as integrally related skills. Students will study and practice reading comprehension, the writing process, critical thinking, and creating clear and correct sentences as they develop the skills necessary to write a variety of focused, developed, organized paragraphs and essays. Students will be responsible for writing at least six full-process essays. This course may be taken two times for credit. It may include a departmental final.

268 READING CENTER BASIC SKILLS .5 - 3 Units
Prerequisite: None
27-162 hours laboratory
Individualized instruction modules at all skill levels designed to help the student acquire or improve reading skills in specific areas. Course offerings vary, depending upon the student’s needs and abilities. A partial list includes the following: comprehension (all levels), vocabulary development (all levels), speed reading, critical reading, textbook reading, study skills, spelling improvement, tutor training. Credit/no credit. Reading modules may not be repeated for credit and are not substitutes for English 72, 269, 270, 271, or for any of the ESL courses. Students may register up to the 12th week of the semester. Scheduling is flexible and may be agreed upon by the student and staff. A maximum of six units may be earned.

269 READING SKILLS 3 Units
Prerequisite: Placement through the assessment process.
Advisory: Concurrent enrollment in English 202 and 203.
54 hours lecture
This reading course is designed to help students master the foundations of reading skill: word attack, vocabulary, development and basic comprehension. This course may be taken twice for credit with the recommendation of the instructor. Students are strongly encouraged to enroll in English 252 for access to individualized help in the Reading and Writing Center.
270 BASIC READING SKILLS 3 Units
Prerequisite: Placement through the assessment process, or completion of English 269 with a grade of “C” or better.
Advisory: Concurrent enrollment in English 255.
54 hours lecture
This reading course is designed to help students master basic, pre-collegiate reading skills by developing vocabulary, literal and inferential comprehension, textbook reading techniques, and study skills and by reading for pleasure. Students may become more efficient readers by learning to vary rate and comprehension depending upon purpose for reading. This course may be taken twice for credit with the recommendation of the instructor. Students are encouraged to enroll in English 252 for access to individualized help in the Reading and Writing Center.

271 EFFICIENT READING 3 Units
Prerequisite: Placement through the assessment process, or completion of English 270 with a grade of “C” or better.
Advisory: Concurrent enrollment in English 256 and 252.
54 hours lecture
This reading course is designed to help students prepare for college level reading by refining vocabulary, literal and inferential comprehension skills, textbook reading techniques, and study skills and by reading for pleasure. Efficiency is gained by learning to vary rate and comprehension depending upon purposes for reading. This course may be taken twice for credit with the recommendation of the instructor. Students are encouraged to enroll in English 252 for access to individualized help in the Reading and Writing Center.

See next page for the English Sequence Tree
CRC ENGLISH SEQUENCE

COMPOSITION

ENGLISH 255
Writing Skills

ENGLISH 256 *
Developmental Writing

ENGLISH 269 *
Reading Skills

ENGLISH 270 *
Basic Reading Skills

ENGLISH 271 *
Efficient Reading

ENGLISH 252
Reading and Writing Laboratory
Open access laboratory provides assistance in reading and writing skills to all students in all subject areas who are encountering difficulties in reading, writing, spelling, sentence structure and paragraph or essay structure.

ENGLISH 57 *
College Writing
Required for non-transfer A.A. degree

ENGLISH 59
Writing for the Correctional Officer
Required for non-transfer A.A. degree

ENGLISH 60 *
Practical Communication
Required for non-transfer A.A. degree

ENGLISH 1A
College Composition
Minimum requirement for transfer to 4-year institutions

ENGLISH 1B
College Comp. & Literature
Fulfills CSUS English 20 requirement

ENGLISH 1C
Adv. Comp. & Critical Thinking
Fulfills IGETC critical thinking requirements & CSUS Engl 20

ENGLISH 72
Critical Reading
Required for A.A. if student does not qualify by proficiency exam.

ENGLISH 75
Technical Reading

ENGLISH 25
Creative Writing / Literary Mag.
Engl 15, A, B, C
Engl 17 C, D

ENGLISH 26
Gender & Ethnic. in Contemp.
American Literature

ENGLISH 27
Women in Literature

ENGLISH 29
Contemp. Third World Literature

ENGLISH 30/31
World Literature

ENGLISH 32
World Literature

ENGLISH 33/34
American Literature

ENGLISH 35/36
English Literature

ENGLISH 39
Children & Literature

ENGLISH 40
African American Literature

ENGLISH 42
Intro. to Short Story

ENGLISH 47A
Intro. to Shakespeare & Film

LITERATURE

All literature classes transfer to CSU and/or UC

ENGLISH 1**
ENGL 18
Gender & Ethnic. in Contemp. American Literature

ENGL 26
Mythologies of the World

ENGL 27
Women in Literature

ENGL 29
Contemp. Third World Literature

ENGL 30/31
World Literature

ENGL 32
World Literature

ENGL 33/34
American Literature

ENGL 35/36
English Literature

ENGL 39
Children & Literature

ENGL 40
African American Literature

ENGL 42
Intro. to Short Story

ENGL 47A
Intro. to Shakespeare & Film

KEY

* Eligibility is determined by Assessment Process.
** Eligibility for English 1A.
O Transfers to all campuses of University of California.
X Transfers to all California State Universities.

COSUMNES RIVER COLLEGE 2000 - 2001

English 141
Area of Humanities & Social Science

English as a Second Language (ESL)

CR offers courses in ESL designed to provide students with the command of the English language necessary to pursue both transfer level and vocational courses. Students can enter with virtually no knowledge of English and progress to an extremely proficient level.

Career Options
Command of the English language is critical in any career choice

Highlights
Well-trained, dedicated staff
Wide range of practical course offerings designed to facilitate entry into other programs
Curriculum of interest to international students

English as a Second Language

1C U.S. CULTURE THROUGH FILM 3 Units
Prerequisite: Completion of ESL 280L with a grade of “C” or better, or placement through the assessment process.
54 hours lecture
This course provides opportunities for non-native speakers of English to become familiar with and make sense of aspects of U.S. culture through the medium of American film and video. Students will watch, discuss and comment on films chosen for their illumination of selected cultural topics. Films will be available in the library on 3-hour reserve. Students must meet departmental proficiency standards.

1G INTERMEDIATE-HIGH GRAMMAR 4 Units
Prerequisite: Eligibility is determined by the assessment process, or completion of ESL 280G with a grade of “C” or better.
72 hours lecture
This course focuses on further practice of the forms, meanings, and usage of grammatical structures of English. Oral practice in class reinforces the structures studied. Students practice writing extensively both in and out of class.

1L INTERMEDIATE-HIGH LISTENING AND SPEAKING 4 Units
(formerly Pronunciation Skills)
Prerequisite: Completion of ESL 280L with a grade of “C” or better, or placement through the assessment process.
54 hours lecture, 54 hour laboratory
This course focuses on pronunciation skills within the context of meaningful communication in an academic and employment setting. The emphasis is on understanding and producing stress, rhythm and intonation patterns of English so meaning will not be distorted.

1R INTERMEDIATE-HIGH READING 4 Units
(formerly Intermediate Reading & Vocabulary)
Prerequisite: Completion of ESL 280R with a grade of “C” or better, or placement through the assessment process.
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
This course focuses on the introduction of academic reading skills with an emphasis on speed, vocabulary expansion, and comprehension of ideas, and introduces students to library use. Students will use critical thinking skills to understand, paraphrase, summarize, and respond to ideas expressed in reading, either orally or in writing.
1W  INTERMEDIATE-HIGH WRITING  4 Units
(formerly Intermediate Composition)
Prerequisite: Completion of ESL 280W with a grade of "C" or
better or placement through the assessment process.
Acceptable for credit: CSU
72 hours lecture
This course will continue to develop students' ability
to respond to a variety of essay assignments. They will
practice critical thinking skills through class discussion and
written response to readings and prompts. They will refine
their ability to control a range of sentence structures.

2G  ADVANCED-LOW GRAMMAR  4 Units
Prerequisite: Eligibility is determined by the assessment
process, or completion of ESL 1G with a grade of "C" or
better.
72 hours lecture
This course focuses on practice in the forms and meaning of
major structures used in writing with an emphasis on clause
structure. Oral practice reinforces the structures studied.
Students practice writing extensively, both in and out of
class. Assignments emphasize sentence structure in the
context of longer written work.

2L  ADVANCED-LOW LISTENING AND SPEAKING  4 Units
(formerly Advanced Pronunciation Skills)
Prerequisite: Completion of ESL 1L with a grade of "C" or
better or placement through the assessment process.
54 hours lecture, 54 hours laboratory
This is a course with intensive practice in listening and active
participation strategies that are appropriate for American
college courses. Students will listen to extended lectures
from various subject areas, refine note-taking skills, be able
to participate in in-depth discussions, and give oral presenta-
tions. Students will continue to improve pronunciation
skills.

2R  ADVANCED-LOW READING  4 Units
(formerly Advanced Reading & Vocabulary)
Prerequisite: Completion of ESL 1R with a grade of "C" or
better, or placement through the assessment process.
Acceptable for credit: CSU
72 hours lecture
This course focuses on refining academic reading skills with
an emphasis on speed, vocabulary development, and
analytical comprehension. Students will practice research
and synthesizing skills and do extensive writing based on
critical analysis of readings.

2W  ADVANCED-LOW WRITING  4 Units
(formerly Advanced Composition)
Prerequisite: Completion of ESL 1W with a grade of "C" or
better, or placement through the assessment process.
Acceptable for credit: CSU, UC
72 hours lecture
In this course students will use critical thinking skills and the
writing process to produce a variety of focused, developed
and organized essays. The course emphasizes sentence
variety and the mechanics of English in the context of the
eyessay. Essays will incorporate outside sources as well as
personal experience.

49  SPECIAL STUDIES IN ENGLISH FOR NON-NATIVES  1-3 Units
Prerequisite: Study petitions will be accepted when deter-
mined to be appropriate to the student's placement as
determined by the assessment process.
18-54 hours lecture
Individuals and groups can petition for an opportunity to
follow individualized paths of study in English for non-
natives which are not included in the current course offer-
ings. This course may be repeated for credit providing that
there is no duplication of the topics.

200L  NOVICE LISTENING AND SPEAKING  4 Units
(formerly Novice Reading and Writing)
Prerequisite: None
54 hours lecture, 54 hours laboratory
This course will provide an introduction to English at the
Novice level. It is characterized by an emerging ability to
understand and produce appropriate responses in high-
frequency situations utilizing learned materials, standardized
messages, phrases and expressions including certain content
required for basic communication, such as dates, time,
weather, food, family etc. Students will learn all the sounds
of English and be introduced to the intonation patterns of
American English. Communication will be comprehensible
to a sympathetic listener accustomed to interacting with non-
native speakers.

200R  NOVICE READING  4 Units
(formerly Novice Reading and Writing)
Prerequisite: None
54 hours lecture, 54 hours laboratory
This course will provide an introduction to English at the
Novice level, which is characterized by an emerging ability to
read and write words, phrases and sentences common in
high-frequency situations utilizing learned materials,
standardized messages, phrases and expressions including certain content required for basic words, phrases and
sentences introduced in the Listening and Speaking core text.
In addition, students will learn basic rules, phonetics and
basic grammar necessary to read and write comprehensibly.

200W  NOVICE WRITING  4 Units
(formerly ESL 202, Fundamentals of
ESL I: Grammar & Culture, and ESL 212,
Fundamentals of ESL II: Grammar & Culture)
Prerequisite: None
54 hours lecture, 54 hours laboratory
This course is for students with little experience in English. It
is an introduction to writing English. Students will learn to
spell through phonetics and sight words, phrases, parts of
speech and the elements of basic sentences. They will learn
to write both yes and no questions, and why and how
questions. Finally, they will be able to write about common
topics introduced in all beginning language courses. This
course is for non-native speakers of English who plan to take
college courses.
252 LANGUAGE SKILLS LABORATORY .5-1 Unit
Prerequisite: None.
27-54 hours laboratory
This is a laboratory course designed to enable students to focus on specific English language skills through interaction with tutors, faculty, and computer software programs. This class is recommended for ESL students at any level who need further, focused attention to very specific skills including, but not limited to pronunciation, grammar, vocabulary development and spelling. Students may enter the course at any time during the first 9 weeks of the semester and earn either .5 or 1 unit. For each semester of enrollment, a specific study place will be developed by faculty in consultation with the students. Students may repeat the course, earning a maximum of six (6) units. This course is graded on a credit/no credit basis.

260L NOVICE-HIGH LISTENING 4 Units
AND SPEAKING
(formerly ESL 220L, High-Novice Listening and Speaking)
Prerequisite: Completion of ESL 200L with a grade of “C” or better, or placement through the assessment process.
54 hours lecture, 54 hours laboratory
This is a course in listening comprehension and speaking at the novice-high level characterized by common contexts, and high frequency vocabulary and expressions. Students will recognize and produce sounds and patterns in American English, and will understand and be understood by sympathetic listeners and speakers. This course may be taken two times for credit.

260R NOVICE-HIGH READING 4 Units
(formerly ESL 220R, High Novice Reading and Writing)
Prerequisite: Completion of ESL 200R with a grade of “C” or better, or placement through the assessment process.
54 hours lecture, 54 hours laboratory
This course focuses on developing reading skills with an emphasis on building vocabulary, literal comprehension, and fluency. Students will discuss and write about readings.

260W NOVICE-HIGH WRITING 4 Units
(formerly ESL 222, Low Beginning ESL: Grammar and Culture)
Prerequisite: Completion of ESL 200W with a grade of “C” or better through the assessment process.
54 hours lecture, 54 hours laboratory
In this course students will learn simple sentences and paragraph structures. This course is an introduction to writing in English for non-native speakers who plan to take college courses.

270L INTERMEDIATE-LOW LISTENING 4 Units
AND SPEAKING
(formerly Basic Listening and Speaking)
Prerequisite: Completion of ESL 260L with a grade of “C” or better, or placement through the assessment process.
54 hours lecture, 54 hours laboratory
This is a course in listening comprehension and practical conversation for non-native English speakers who plan to take college courses. Students will learn to recognize and use the sound of American English, stress, rhythm, and intonation patterns. This course may be taken two times for credit.

270R INTERMEDIATE-LOW READING 4 Units
(formerly Basic Reading and Vocabulary)
Prerequisite: Completion of ESL 260R with a grade of “C” or better, or placement through the assessment process.
54 hours lecture, 54 hours laboratory
This course focuses on developing reading skills with an emphasis on building vocabulary, literal comprehension, and fluency. Students will discuss and write about readings.

270W INTERMEDIATE-LOW WRITING 4 Units
(formerly Basic Writing and Grammar)
Prerequisite: Completion of ESL 260W with a grade of “C” or better, or placement through the assessment process.
54 hours lecture, 54 hours laboratory
In this course students will learn to write focused paragraphs with a clear beginning, middle and end. They will learn to use critical thinking skills and correct grammar in their writing.

280G INTERMEDIATE ENGLISH GRAMMAR 3 Units
FOR NON-NATIVE SPEAKERS
(formerly ESL 254, Basic English Sentence Patterns)
Prerequisite: None
54 hours lecture
This course is designed to provide intermediate students with an intensive overview of English grammar and syntax including sentence building, correct usage and punctuation. Students will analyze native speaker texts and demonstrate ability to control target forms in their own writing. Recommended for students in ESL 280W or 1W who wish to reinforce their control of English grammar and sentence structure.

280L INTERMEDIATE-MID LISTENING 4 Units
AND SPEAKING
(formerly ESL 280L, Basic Listening and Speaking)
Prerequisite: Completion of ESL 270L with a grade of “C” or better or placement through the assessment process.
54 hours lecture, 54 hours laboratory
This is a course to help students understand and be understood in both familiar and unfamiliar situations. Students will be introduced to academic listening and speaking activities and will continue to work on pronunciation skills. This course may be taken two times for credit.
280R INTERMEDIATE-MID READING 4 Units
(formerly Beginning Reading and Vocabulary)
Prerequisite: Completion of ESL 270R with a grade of “C” or better, or placement through the assessment process.
54 hours lecture, 54 hours laboratory
This course focuses on the introduction of academic reading skills, with an emphasis on vocabulary development, literal comprehension, and dictionary skills. Students will practice critical thinking skills to understand, analyze, discuss, and write responses to ideas expressed in readings.

280W INTERMEDIATE-MID WRITING 4 Units
(formerly Beginning Composition)
Prerequisite: Completion of ESL 270W with a grade of “C” or better or placement through the assessment process.
54 hours lecture, 54 hours laboratory
In this course students will learn techniques essential to essay writing. They will continue to develop sentence structure in longer pieces of writing.

288F PARTS OF SPEECH 2 Units
(formerly ESL 253, Introduction to Parts of Speech of English)
Prerequisite: Eligibility is determined by the assessment process, or completion of ESL 270W with a grade of “C” or better.
36 hours lecture
This elective course covers the most important parts of speech in English. Students will learn to identify and use nouns, pronouns, adjectives, adverbs, verbs, prepositions, and conjunctions in basic sentences. This course may be taken two times for credit.

288P PRONUNCIATION 2 Units
Prerequisite: Eligibility is determined by the assessment process, or completion of ESL 270L with a grade of “C” or better.
36 hours lecture
This elective course is designed for students who need to improve their pronunciation. It offers intensive practice in the pronunciation and recognition of American English sounds. Students will be introduced to intonation patterns of English, syllables, and stress. This course may be taken twice for credit.

288S SPELLING 2 Units
(formerly ESL 255, Basic Spelling Rules/Patterns of English)
Prerequisite: Eligibility is determined by the assessment process, or completion of ESL 270R with a grade of “C” or better.
36 hours lecture
This elective course is designed for students who need to improve their spelling. It includes an introduction to the basic spelling rules and patterns of English. Students will also learn homophones, suffixes, and plurals. Students will develop competence in the ability to spell. This course may be taken twice for credit.

288V VERB TENSE AND ASPECT 2 Units
Prerequisite: Eligibility is determined by the assessment process, or completion of ESL 270W with a grade of “C” or better.
36 hours lecture
This 2-unit elective course provides an overview of the English verb system. Students will learn the 12 active voice verb structures and their meanings. Intensive practice will be given in choosing appropriate verb “tenses” for different purposes. Students will also learn how various kinds of verbs affect sentence structure.

See Next Page for the E.S.L. Class Sequence Tree
ENGLISH AS A SECOND LANGUAGE
PROGRAM TREE

SPEECH

ESL 2L
Advanced-Low Listening and Speaking

ESL 1L
Intermediate-High Listening and Speaking

ESL 280L
Intermediate-Mid Listening and Speaking

ESL 270L
Intermediate-Low Listening & Speaking

ESL 260L
Novice-High Listening & Speaking (formerly 220L)

ESL 200L
Novice-Low Listening and Speaking

ESL 288S **
Intermediate-Mid Spelling

ENGLISH 72

ESL 2R *
Advanced-Low Reading

ESL 1R
Intermediate-High Reading

ESL 280R
Intermediate-Mid Reading

ESL 270R
Intermediate-Low Reading

ESL 260R
Novice-High Reading (formerly 220R)

ESL 200R
Novice-Low Reading

ENGLISH 57

ESL 2W *
Advanced-Low Writing

ESL 1W *
Intermediate-High Writing

ESL 280W
Intermediate-Mid Writing

ESL 270W
Intermediate-Low Writing

ESL 260W
Novice-High Writing (formerly 222/232)

ESL 200W
Novice-Low Writing (formerly 202/212)

ESL 2G *
Advanced-Low Grammar

ESL 1G *
Intermediate-High Grammar

ESL 280G +
Intermediate-Mid Grammar

ESL 288P **
Intermediate-Mid Pronunciation

ESL 288V **
Intermediate-Mid Verb Tense & Aspect

ESL 288F **
Intermediate-Mid Parts of Speech

FOUR UNITS, 3 Lecture and 3 Lab Sequence courses
* Four Unit Lecture Only Sequence Courses
** 2 Unit Lecture Only Overview Courses
+ 3 Unit Lecture Only Course

(Course Level Reflects California Pathway Descriptors)
Area of Science, Mathematics & Engineering

Environmental Technology

DEGREE
A.S.—Environmental Technology

CERTIFICATES
Environmental Applications of Desktop GIS
Environmental Health & Safety
Environmental Sampling & Analysis
Environmental Technology
Applications of Desktop GIS, (see Science, page 259)
(Environmental Technology emphasis)

Environmental Technology (EnVT) is a program designed to provide training for entry-level technicians who will be involved with environmental protection, regulatory compliance and workplace safety and health applications. Students may also transfer to four year degree programs at several California universities.

Graduates may be employed by businesses and governmental agencies that require a knowledge of techniques for storage, treatment, transport and disposal of hazardous materials, a basic understanding of the chemical and biological phenomena which underlie environmental protection, and an understanding of environmental health and safety. Technicians may be employed in remediation, monitoring, compliance or environmental information applications.

Career Options
- Engineering/Consulting Firms; Governmental Compliance Agencies; Solid Waste Disposal
- Landfills; Agricultural Chemical Manufacture & Application Firms; Analytical Laboratories;
- Treatment, Storage, Disposal Facilities;
- Warehouse-Transportation Systems;
- Electronics Semiconductor Industry;
- Workplace Health and Safety Support;
- Energy & Environmental Audit/Inventories

Highlights
- A “hands-on” program providing a firm foundation in all areas of hazardous materials handling
- Broad-based field with applications ranging from recordkeeping to pollution cleanup to emergency response

Many career options require a B.S. degree.
Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.
DEGREE
A.S.—Environmental Technology
CODE #1285

REQUIRED PROGRAM ............................................................. Units
ENVT 1 Introduction To Environmental Technology .......... 3
ENVT 10 Safety and Emergency Response or .................... 4
ENVT 10A Hazard Materials Awareness & Safety (1) and
ENVT 10B Spill Control & Emergency Response (1.5) and
ENVT 10C Decision Making in Emergencies (1.5)
ENVT 15 Hazardous Materials Management Applications or ...... 4
ENVT 15A Right-to-Know Laws (1.5) and
ENVT 15B Transport. & Storage of Hazard. Mat. (1.5) and
ENVT 15C Air Quality Issues (1)
ENVT 20 Hazard. Waste Generation/Reduction/Treatment or ...... 3
ENVT 20A Pollution Prevention (1) and
ENVT 20B Pollution Control (1) and
ENVT 20C Indus./Serv. Waste Stream Case Studies (1)
ENVT 30 Health Effects of Hazardous Materials or ............... 3
ENVT 30A Basics of Toxicology (2) and
ENVT 30B Basics of Industrial Hygiene (1)
ENVT 40 Hazardous Waste Management Applications or ........... 4
ENVT 40A Hazard. Waste Generator Req. (1.5) and
ENVT 40B Sampling and Analysis (1.5) and
ENVT 40C Environ. Hazard. Waste Mgmt. Topics (1)
ENVT 4 Environmental Biology or
BIOL 14 Environmental Biology .......................................... 3
BIOL 16 General Biology .................................................... 4
CHEM 2A Introduction to Chemistry ........................................ 4
CHEM 2B Introduction to Chemistry ........................................ 4
INDIS 58 Computer Applications for the Environmental,
Natural & Physical Sciences ............................................... 2
TOTAL UNITS REQUIRED .................................................... 38

Suggested Electives:
Business 8; CIS 1, 11A, 12A, 13A;
ENVT 9,19, 25, 45, 90;
Geography 1, 9, 14, 19; Speech 13, 15; Statistics 1.

General Education Graduation Requirements - see page 18.

CERTIFICATE
Environmental Technology
CODE #1285

REQUIRED PROGRAM ............................................................. Units
ENVT 1 Introduction To Environmental Technology .......... 3
ENVT 10 Safety and Emergency Response or .................... 4
ENVT 10A Hazard Materials Awareness & Safety (1) and
ENVT 10B Spill Control & Emergency Response (1.5) and
ENVT 10C Decision Making in Emergencies (1.5)
ENVT 15 Hazardous Materials Management Applications or ...... 4
ENVT 15A Right-to-Know Laws (1.5) and
ENVT 15B Transport. & Storage of Hazard. Mat. (1.5) and
ENVT 15C Air Quality Issues (1)
ENVT 20 Hazard. Waste Generation/Reduction/Treatment or ...... 3
ENVT 20A Pollution Prevention (1) and
ENVT 20B Pollution Control (1) and
ENVT 20C Indus./Serv. Waste Stream Case Studies (1)
ENVT 30 Health Effects of Hazardous Materials or ............... 3
ENVT 30A Basics of Toxicology (2) and
ENVT 30B Basics of Industrial Hygiene (1)
ENVT 40 Hazardous Waste Management Applications or ........... 4
ENVT 40A Hazard. Waste Generator Req. (1.5) and
ENVT 40B Sampling and Analysis (1.5) and
ENVT 40C Environmental Hazard. Waste Mgmt. Topics (1)
ENVT 4 Environmental Biology or
BIOL 14 Environmental Biology .......................................... 3
BIOL 16 General Biology .................................................... 4
CHEM 2A Introduction to Chemistry ........................................ 4
CHEM 2B Introduction to Chemistry ........................................ 4
INDIS 58 Computer Applications for the Environmental,
Natural & Physical Sciences ............................................... 2
Plus four (4) units selected from
Business 8; CIS 1, 11A, 12A, 13A;
Environ. Tech. 9, 19, 25, 45;
Geography 1, 9, 14, 19;
Speech 13, 15;
Statistics 1
TOTAL UNITS REQUIRED .................................................... 42

CERTIFICATE
Environmental Applications of Desktop GIS
CODE #1345

REQUIRED PROGRAM ............................................................. Units
ENVT 1 Introduction to Environmental Technology or
ENVT 4/BIOL 14 Environmental Biology .................................... 3
GEOG 14 Intro. to Global Positioning Systems ....................... 1
ENVT 19/GEOG 19 Intro. to Desktop GIS Applications (3) or
GEOG 9/INDIS 58 Introduction to GIS (4) .............................. 3-4
GEOG 1 Elements of Physical Geography .............................. 3
GEOG 11 Physical Geography Laboratory .............................. 1
CIS 3 Intro to Computer Information Science or
INDIS 58 Computer Applications for the Environmental,
Natural & Physical Sciences ............................................... 2-3
TOTAL UNITS REQUIRED .................................................... 13-15
CERTIFICATE
Environmental Sampling and Analysis

CODE #1346

REQUIRED PROGRAM .................................................. Units

<table>
<thead>
<tr>
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<th>Title</th>
<th>Units</th>
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<td>ENVT 10A</td>
<td>Hazard, Materials Awareness and Safety</td>
<td>1</td>
</tr>
<tr>
<td>ENVT 30B</td>
<td>Basics of Industrial Hygiene</td>
<td>1</td>
</tr>
<tr>
<td>ENVT 45B</td>
<td>Sampling and Analysis</td>
<td>1.5</td>
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<tr>
<td>ENVT 45A</td>
<td>Ecological Sampling &amp; Analysis Methods (2)</td>
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<tr>
<td>ENVT 45B</td>
<td>Sampling and Analysis Methods for Human Health &amp; Safety (1)</td>
<td>3</td>
</tr>
<tr>
<td>BUS 8</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 2A</td>
<td>Introduction to Chemistry</td>
<td>4</td>
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<tr>
<td>CHEM 2B</td>
<td>Introduction to Chemistry</td>
<td>4</td>
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<tr>
<td>INDIS 58</td>
<td>Computer Applications for the Environmental, Natural &amp; Physical Sciences</td>
<td>2</td>
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</tbody>
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TOTAL UNITS REQUIRED .................................................. 19.5

Suggested Electives:
- Environmental Technology 1, 19, 25;
- Geography 14; Geology 1, 2; Statistics 1.

CERTIFICATE
Environmental Health and Safety

CODE #1347

REQUIRED PROGRAM .................................................. Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ENVT 10</td>
<td>Safety and Emergency Response</td>
<td>4</td>
</tr>
<tr>
<td>ENVT 30</td>
<td>Health Effects of Hazardous Materials</td>
<td>3</td>
</tr>
<tr>
<td>ENVT 45B</td>
<td>Sampling &amp; Analysis Methods for Human Health &amp; Safety</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 16</td>
<td>General Biology</td>
<td>4</td>
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<tr>
<td>CHEM 2A</td>
<td>Introduction to Chemistry</td>
<td>4</td>
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<tr>
<td>CHEM 7</td>
<td>Environmental Chemistry (3)</td>
<td></td>
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<tr>
<td>CHEM 7L</td>
<td>Environmental Chemistry Lab (1)</td>
<td></td>
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<tr>
<td>INDIS 58</td>
<td>Computer Applications for the Environmental, Natural &amp; Physical Sciences</td>
<td>2</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED .................................................. 18

Suggested Electives:
- Allied Health 54; Business 8; Statistics 1.

Environmental Technology

1 | INTRODUCTION TO ENVIRONMENTAL TECHNOLOGY | 3 Units

Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
This introductory course is designed to give students a general overview of the Environmental Technology industry. Past and current sources of pollution are discussed along with the technologies used to alleviate environmental problems. The management systems, source controls and methodologies designed to protect the human community are presented. An historical perspective of the legislative process that has led to current regulations, and where to find and how to read these regulations will be addressed. Definitions, terminology and regulatory framework are emphasized. A discussion of career opportunities will be included.

4 | ENVIRONMENTAL BIOLOGY | 3 Units
Prerequisite: None (Not open to students who have received credit for Biology 14)
Acceptable for credit: CSU, UC
54 hours lecture
This course presents an overview of ecosystems and natural resources. Major topics covered include ecological principles, ecosystem functioning, conservation biology, resource use and management, pollution and other human-caused environmental impacts. This course provides the background needed to understand major global and regional issues such as acid rain, global warming, hazardous waste disposal, deforestation and endangered species recovery. ENVT 4 is especially useful for Environmental Technology, Environmental Sciences, Ecology, Recreation, Education and Political Science majors. Field trips, attendance at public meetings and/or a semester project may be required.

9 | INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS | 4 Units
Prerequisite: None. (Not open to students who have received credit for Geography 9.)
Advisory: GIS 1 and Geography 1
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
A Geographic Information System (GIS) is a computer-based data processing tool used to manage and analyze spatial information. This course introduces students to the theory and techniques of GIS including spatial data capture, management and analysis, and cartographic output. Emphasis is placed on the use of technical analysis and software in order to provide students with skills and a conceptual base on which they can build further expertise in GIS. This course is especially useful for Geography, Environmental Science, Economics, and land-use planning majors.

10 | SAFETY AND EMERGENCY RESPONSE | 4 Units
Prerequisite: See prerequisites/advisories for individual modules.
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
This is a semester length course which includes all of the content of ENVT10A, Hazardous Materials Awareness and Safety; ENVT10B, Spill Control and Emergency Response; and ENVT 10C, Decision Making in Emergencies.

10A | HAZARDOUS MATERIALS AWARENESS AND SAFETY | 1 Unit
Prerequisites: None.
Advisory: Environmental Technology 1
Acceptable for credit: CSU
24 hours lecture
This course covers the health and safety aspects of working with hazardous materials. Emphasis is placed on the recognition of hazardous materials and the nature of worksite hazards which includes the study of hazard classifications, laws and regulations applying to worker health and safety, types of health effects, personal protective equipment, risk reduction processes, and health and safety planning processes. The course is designed to meet general requirements of OSHA Hazardous Materials Training for work not requiring the use of respiratory protection (OSHA 29 CFR 1910.120, 24-hour Hazwoper).
10B  SPILL CONTROL AND EMERGENCY RESPONSE 1.5 Units
Prerequisites: None.
Advisory: Environmental Technology 10A (or 24 hour or 40 hour Hazwoper OSHA Certificate) and Environmental Technology 1.
Acceptable for credit: CSU
18 hours lecture, 27 hours laboratory
This course covers procedures for safety and emergency response to chemical spills in industrial and field settings. The focus is on various spill control schemes, containment, and mitigation procedures, and development and implementation of a personal protective program pursuant to OSHA standards.

10C  DECISION MAKING IN EMERGENCIES 1.5 Units
Prerequisite: None
Advisory: Environmental Technology 1 and 10B.
Acceptable for credit: CSU
18 hours lecture, 27 hours laboratory
This course is designed to provide students with hands-on instruction in safety and emergency response to chemical and physical exposures in industrial and field settings. Emphasis is placed on hazard analysis and emergency response planning including contingency and emergency plans, hazard identification, vulnerability analysis and risk evaluation, response functions, and incident command functions.

15  HAZARDOUS MATERIALS MANAGEMENT APPLICATIONS 4 Units
Prerequisite: See prerequisites/advisories for individual modules.
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
This is a semester length course which includes all of the content of EvT15A, Right-to-Know Laws; EvT15B, Transportation and Storage of Hazardous Materials; and EvT15C, Air Quality Issues.

15A  RIGHT-TO-KNOW LAWS 1.5 Units
Prerequisite: None
Advisory: Environmental Technology 1.
Acceptable for credit: CSU
18 hours lecture, 27 hours laboratory
This course examines the requirements and applications of federal, state, and local laws and regulations relating to hazardous materials disclosure. The course will cover California and Federal OSHA Hazard Communication Standards, Hazardous Material Emergency Planning and Community Right-to-Know regulations, and California's Safe Drinking Water & Toxic Enforcement Act. Emphasis will be placed on applications of these laws and regulations in the community and workplace, including: proper labeling and handling of hazardous materials; obtaining MSDS's; and planning, recordkeeping and reporting functions.

15B  TRANSPORTATION AND STORAGE OF HAZARDOUS MATERIALS 1.5 Units
Prerequisite: None
Advisory: Environmental Technology 1 and 15A.
Acceptable for credit: CSU
18 hours lecture, 27 hours laboratory
This course covers the requirements and applications of federal, state, and local laws and regulations relating to hazardous materials management. This course will focus on California and Federal Transportation and Underground Tank regulations. Emphasis will be placed on applications of laws and regulations in the work of environmental technicians in industry, including proper completion of shipping papers; obtaining permits for operating, installing or closing underground tank facilities; and general planning and reporting functions.

15C  AIR QUALITY ISSUES 1 Unit
Prerequisite: None
Advisory: Environmental Technology 1, 4 (or Biology 14), and 15B.
Acceptable for credit: CSU
18 hours lecture
This course covers the requirements and applications of federal, state, and local laws and regulations relating to hazardous materials management. The course will focus on California federal, state, and local air quality issues. Emphasis will be placed on applications of laws, regulations, and procedures in industry including: identification of toxic air pollutants; new source review and permitting; and general planning and reporting functions.

19  INTRODUCTION TO DESKTOP GEOGRAPHIC INFORMATION SYSTEMS APPLICATIONS 3 Units
Prerequisite: None. (Not open to students who have received credit for Geography 19.)
Advisory: Computer Information Science 90
Acceptable for credit: CSU
30 hours lecture, 72 hours laboratory
Geographic Information Systems (GIS) are systems of computers and people used to integrate spatial data in order to make a decision. Through the use of ArcView GIS software, this course provides a practical introduction to basic functionality of desktop GIS. Students will learn GIS skills including identifying zones, measuring distances, calculating areas, integrating spatial data and displaying output. The types of information analyzed in GIS may include environmental, economic, political, social, health care, and transportation.
19A  FUNDAMENTALS OF GEOGRAPHIC INFORMATION SYSTEMS  1 Unit

Prerequisite: None. (Not open to students who have received credit for Geography 19A.)
Advisory: Computer Information Science 90
Acceptable for credit: CSU
12 hours lecture, 18 hours laboratory

Geographic Information Systems (GIS) are computer mapping programs that allow rapid and sophisticated analysis of spatial data. This course provides a basic introduction to geographical information systems. Students will be introduced to basic concepts and techniques of map analysis and the way these are used in geographical information systems in general and desktop GIS in particular. The major areas of practical application of GIS will be discussed. The use of data and principles of sampling and modeling will be presented. The basic computer skills necessary to use a desktop GIS will be taught. This course is useful to students interested in the analysis of economic, political, health care and natural resource data.

19B  INTRODUCTION TO USING DESKTOP GIS  1 Unit

Prerequisite: None. (Not open to students who have received credit for Geography 19B.)
Advisory: Geography 19A / EnvT 19A
Acceptable for credit: CSU
12 hours lecture, 18 hours laboratory

Geographic Information Systems (GIS) are systems of computers and people used to generate spatial data in order to make a decision. Through the use of ArcView GIS software, this course builds on the foundation of GIS techniques learned in EnvT 19A. Students will learn techniques for GIS data input, spatial analysis, methods of ArcView customization, and database management. The basics of spatial data models will be discussed. Students will learn how to input spatial data, normalize spatial data, perform spatial analysis, measure distances, and output GIS based maps.

19C  PROJECTS USING DESKTOP GIS  1 Unit

Prerequisite: None. (Not open to students who have received credit for Geography 19C.)
Advisory: Geography 19A / EnvT 19A
Acceptable for credit: CSU
6 hours lecture, 36 hours laboratory

Geographic Information Systems (GIS) are increasingly being used by business, industry, and research institutions in place of other analyses of spatial data. This course is designed to allow students to produce projects using desktop GIS. The students will work in groups to plan and produce a project including data selection and input, spatial data analysis, production of output materials, and presentation of results. The types of information analyzed may include political, social, health, environmental, or economic data. The final grade will be partly based on the project produced. The course may be taken four times for credit.

20  HAZARDOUS WASTE GENERATION/REMOVAL/TREATMENT  3 Units

Prerequisite: See prerequisites/advisories for individual modules
Acceptable for credit: CSU
54 hours lecture
This is a semester length course which includes all of the content of EnvT 20A, Pollution Prevention; EnvT 20B, Pollution Control; and EnvT 20C, Industrial/Service Waste Stream Case Studies.

20A  POLLUTION PREVENTION  1 Unit

Prerequisite: None
Advisory: Environmental Technology 1
Acceptable for credit: CSU
18 hours lecture
This course discusses the opportunities, benefits, and barriers to waste minimization. Basic information is provided concerning waste reduction strategies and the steps involved in preparing a pollution prevention plan.

20B  POLLUTION CONTROL  1 Unit

Prerequisite: Chemistry 2A.
Advisory: Environmental Technology 1 and 20A.
Acceptable for credit: CSU
18 hours lecture
This course provides a discussion of industrial processes and the waste streams they produce. Emphasis is placed on understanding the main biological, chemical, physical and thermal methods used for air pollution abatement and waste water treatment.

20C  INDUSTRIAL/SERVICE WASTE STREAM CASE STUDIES  1 Unit

Prerequisite: None.
Advisory: Environmental Technology 1 and 20B
Acceptable for credit: CSU
18 hours lecture
This course uses industrial case studies to illustrate applications of waste reduction practices, resource conservation techniques, and waste treatment processes. A business unit is analyzed and a waste minimization plan developed. The integration of pollution prevention, environmentally conscious practices and the identification of "cost/benefit" alternatives are emphasized.

25  WATER RESOURCES  4 Units

Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
This course provides an overview of water resources including aspects of the chemistry, geography, and biology of aquatic systems. Water laws and the ecotaxiology of water resources will also be discussed. Students will learn to use basic sampling and analysis methods to assess water resources. Students will be expected to conduct lab work, some of which may be outdoors. The class is useful for students interested in Environmental Science, Environmental Technology, Geography, Natural Resource Management, and Biology. (The class is not intended for students training as water treatment plant operators.)
25A  FUNDAMENTALS OF WATER RESOURCES 1 Unit
Prerequisite: None.
Acceptable for credit: CSU
18 hours lecture
This course provides an overview of water resources including aspects of the chemistry, geography, and biology of aquatic systems. Topics include hydrologic cycle, ocean resources, freshwater systems, and groundwater. Water laws and regulations are also discussed. The class is useful for students interested in Environmental Science, Environmental Technology, Geography, Natural Resource Management, and Biology. (The class is not intended for students training as water treatment plant operators.)

25B  GROUNDWATER RESOURCES 1.5 Units
Prerequisite: None
Advisory: Environmental Technology 25A
Acceptable for credit: CSU
18 hours lecture, 27 hours laboratory
This course provides an overview of groundwater resources. The structure of aquifers including groundwater recharge, storage, and flow is discussed. Students will analyze the impacts of groundwater withdrawal and contamination. Students will learn to use basic sampling and analysis methods to assess groundwater systems. The remediation of contaminated groundwater will be discussed. Students will be expected to conduct lab work, some of which may be outdoors. The class is useful for students interested in Environmental Science, Environmental Technology, Geography, Natural Resource Management, and Biology. A basic knowledge of water resources is assumed before beginning the course. (The class is not intended for students training as water treatment plant operators.)

25C  SURFACE FRESHWATER RESOURCES 1.5 Units
Prerequisite: None.
Advisory: Environmental Technology 25A
Acceptable for credit: CSU
18 hours lecture, 27 hours laboratory
This course provides an overview of surface water resources including lakes, streams, and wetlands. The general characteristics of these ecosystems will be discussed with an emphasis on the biology of these systems. Students will learn to use basic sampling and analysis methods used to assess freshwater systems. The ecotoxicology and clean up of contaminated surface water will be discussed. Students will be expected to conduct lab work, some of which may be outdoors. The class is useful for students interested in Environmental Science, Environmental Technology, Geography, Natural Resource Management, and Biology. A basic knowledge of water resources is assumed before beginning the course. (The class is not intended for students training as water treatment plant operators.)

30A  BASICS OF TOXICOLOGY 2 Units
Prerequisite: Biology 16 and Chemistry 2A
Advisory: Environmental Technology 10A (or 24 hour or 40 hour Hazwoper OSHA Certificate) and Environmental Technology 1
Acceptable for credit: CSU
36 hours lecture
This module will cover the health effects produced by exposure to chemical hazards. The course will give an overview of toxicology including environmental and physiological processes, sources of exposure to toxins, and patterns of acute and chronic health effects.

30B  BASICS OF INDUSTRIAL HYGIENE 1 Unit
Prerequisite: Environmental Technology 10A (or 24 hour or 40 hour Hazwoper OSHA Certificate) and Biology 16
Advisory: Environmental Technology 1 and 30A
18 hours lecture
This module is an introduction to the basic study of industrial hygiene. The course will cover regulations and standards, sources of information concerning harmful agents, the use of personal protective equipment, exposure guidelines and limits, monitoring and control of harmful agents in the workplace, and risk evaluation.

40  HAZARDOUS WASTE MANAGEMENT APPLICATIONS 4 Units
Prerequisite: See prerequisites/advisories for individual modules.
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
This is a semester length course which includes all of the content of EnvT40A, Hazardous Waste Generator Requirements; EnvT40B, Sampling and Analysis; and EnvT40C, Environmental Hazardous Management Topics.

40A  HAZARDOUS WASTE GENERATOR REQUIREMENTS 1.5 Units
Prerequisite: Environmental Technology 10A (or 24 hour or 40 hour Hazwoper OSHA Certificate)
Advisory: Environmental Technology 1 and 20A
Acceptable for credit: CSU
18 hours lecture, 27 hours laboratory
This course will include a study of the requirements and applications of federal, state, and local laws and regulations relating to hazardous waste management, including California and Federal requirements for generators of hazardous waste. Emphasis will be placed on applications of laws and regulations applicable to industry including proper labeling, packaging, placarding, and manifesting of hazardous waste; storage requirements; permitting; and general planning and reporting functions.
### 40B Sampling and Analysis  
1.5 Units  
**Prerequisite:** Environmental Technology 10A (or 24 hour or 40 hour Hazwoper OSHA Certificate) and Chemistry 2A  
**Advisory:** Environmental Technology 1, 20B, and 40A  
**Acceptable for credit:** CSU  
18 hours lecture, 27 hours laboratory  
This course covers the requirements and applications of environmental sampling methodology, equipment recognition and maintenance, calibration procedures, basic analytical techniques, and data interpretation. Selecting and working with analytical service laboratories, development and use of sampling plans, and performance of basic tests using typical field equipment will also be covered.

### 40C Environmental Hazardous Waste Management Topics  
1 Unit  
**Prerequisite:** Environmental Technology 10A (or 24 hour or 40 hour Hazwoper OSHA Certificate)  
**Advisory:** Environmental Technology 1, 20C, and 40B  
**Acceptable for credit:** CSU  
18 hours lecture  
This course covers the requirements and applications of federal, state, and local laws and regulations relating to hazardous waste management. The focus of the course will be on California and federal requirements for special hazardous waste management areas with an emphasis on applications of laws and regulations including overlapping jurisdictions, real estate transactions, infectious waste control, and household hazardous waste. Current issues or regulations will be included.

### 45 Advanced Sampling and Analysis Methods for Environmental Technicians  
3 Units  
**Prerequisite:** Environmental Technology 30B and 40B  
**Acceptable for credit:** CSU  
36 hours lecture, 54 hours laboratory  
This course covers advanced sampling and analysis methods utilized by environmental technicians. The first part of the course will include methods of measuring pollution levels and assessing the health of ecosystems, including sampling and analysis of air, water, soil, and biota. The second part of the course will cover techniques addressing human health and safety including the analysis of risk, safety in the workplace, and the sampling and identification of hazardous materials.

### 45A Ecological Sampling and Analysis Methods  
2 Units  
**Prerequisite:** Environmental Technology 40B  
**Acceptable for credit:** CSU  
24 hours lecture, 36 hours laboratory  
This course will address methods of measuring the health of ecosystems, including the sampling and analysis of air, water, soil, and biota. Students will learn to utilize various common sampling and analysis methodology including equipment use; sample collection; chemical, physical, and numerical analyses; and data interpretation. The emphasis is on pollution detection and analysis of toxic impacts. Major ecosystem types, biogeochemical processes, the flow of energy through ecosystems, sources of pollution, and ecotoxicology will also be discussed. The course is useful to students interested in Environmental Technology, Biology and Ecology.
Area of Business & Family Science

Family & Consumer Science

CRC’s course offerings in Family & Consumer Science are designed primarily to provide knowledge and skills in the areas of nutrition, child development, and family development.

Students planning to transfer should consult with a counselor and/or specific college catalog for transfer, major and general education course work.

See Early Childhood Education (p. 121-129) and Culinary Arts Management (p. 114-118) for additional information.

Career Options
- Instructional Assistant
- Child Care Worker
- Food Preparation Worker
- Community Nutrition Specialist

Some career options may require more than two years of college study.

Highlights
- Strong support for the Early Childhood Education program
- Support for community nutrition specialist (see Culinary Arts Management)
- Nutrition class designed for consumers and health occupation majors
- Opportunities for transfer level instruction
- Professional and innovative staff who are leaders in the field

Family & Consumer Science

10 NUTRITION 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course includes the basic principles of nutrition, sources and functions of the nutrients in all stages of the life cycle, nutrition as a world problem, and consumer problems related to food usage. (CAN H EC 2)

14 CHILDREN’S NUTRITION, HEALTH AND SAFETY 3 Units
Prerequisite: None. (Family and Consumer Science 10 recommended.) (Not open to students who have received credit in Early Childhood Education 14.)
Acceptable for credit: CSU
54 hours lecture
Basic nutritional, health and safety needs of children from the prenatal period through school age. Identification of nutrients in food as they affect physical and mental development. Emphasis on improving the nutritional status of children. Preparations of visual aids and projects relating to children’s nutrition, health and safety.
18 CONTEMPORARY ISSUES 1 Unit
Prerequisite: None.
Acceptable for credit: CSU
18 hours lecture
This course presents in-depth discussions of contemporary issues in the Family and Consumer Sciences. Topics will be selected according to current interest, such as: Microwave Cooking; Protein Alternatives; Realities of Aging; Parenting the Young Child. Students may receive one unit of credit for each topic area. Consult class schedule for specific areas offered.

33 FAMILY DEVELOPMENT 3 Units
Prerequisite: None. (Not open to students who have received credit for Psychology 24.)
Acceptable for credit: CSU
54 hours lecture

34 CHILD DEVELOPMENT 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC — See Counselor
54 hours lecture
This course is a study of the physical, cognitive, social and emotional development of the child from the prenatal period through adolescence. In the foundation course, students will examine children as individuals and the environmental influences that impact their growth and development.

35 THE CHILD, THE FAMILY AND THE COMMUNITY 3 Units
Prerequisite: None. (Family and Consumer Science 34 recommended)
Acceptable for credit: CSU, UC
54 hours lecture
This is a fundamental course that examines the child in the family and the environmental influences on his/her growth and development; including gender, media, sexual orientation, social class/ethnic groups, special needs and their relationship to family behavior. Community resources available to support family systems and dynamics will be examined.

38 HUMAN DEVELOPMENT: A LIFE SPAN 3 Units
Prerequisite: None
Acceptable for credit: CSU, UC — See Counselor
54 hours lecture
This course will provide an overview of the physical, cognitive, social, and emotional development from conception through the life span. The emphasis will be on the practical application of developmental principles. The course is designed as a foundation course of careers in educational, social, psychological, and medical fields. An optional field study unit may be offered to provide opportunities for observation and experience with various age groups.

49 SPECIAL STUDIES IN FAMILY AND CONSUMER SCIENCE 1-3 Units
Acceptable for credit: CSU
(See catalog p. 21)
Area of Communication, Visual & Performing Arts

Film and Media Studies

DEGREE
A.A.—Communications Media, Film and Media Studies

Cosumnes River College offers an innovative and unique program in Film and Media Studies leading to the Associate of Arts degree. The major is designed to develop film production, screenwriting, and critical thinking skills while fostering a humanistic and social scientific understanding of the media. Students combine hands-on courses in scriptwriting, animation, video and film-making with critical studies of the visual media as an art form and social force. This major is particularly encouraged for students who intend to transfer to university film and media programs or pursue careers that demand a high level of visual literacy, analytic and writing skills.

Career Options
Director, Entertainment Writer or Editor,
Producer, Screenwriter, Script Supervisor,
Story Editor

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Highlights
State-of-the-art 20-station computer lab for graphics and non-linear editing, including Photoshop, Illustrator, After Effects and Media 100

Hand-on courses in film and video production and editing

Screening room with rear screen projector and advanced sound system

DEGREE
A.A.—Communications Media, Film and Media Studies

CODE #1420

The Film and Media Studies major is designed to develop screenwriting, film producing, and critical thinking skills while fostering a humanistic and social scientific understanding of the media.

REQUIRED PROGRAM ............................................................. Units

CMED 5/  JOUR 10 Mass Media and Society ........................................ 3
CMED 14  The History of Film or
PHOTO 14  Art of the Cinema .................................................... 3
CMED 54  Basic Film/ Video Camera Techniques ............................... 3
FMS 10  Introduction to Film Studies ............................................ 3
FMS 15A  Screenwriting .............................................................. 3

Plus nine (9) units selected from ..................................................... 9

CMED 64 Television Production (3)
CMED 80 Introduction to Desktop Video (3)
FMS 20 Film Genre (3)
JOUR 12 Race and Gender in the Media (3)
JOUR 20A Newwriting and Reporting (3)

TOTAL UNITS REQUIRED .......................................................... 24

General Education Graduation Requirements - see page 18.

Film and Media Studies

10 INTRODUCTION TO FILM STUDIES 3 Units
Prerequisite: None
54 hours lecture
Acceptable for credit: CSU

This course offers an introduction to the film medium with emphasis on aesthetics, theory, and methods of critical analysis.

15A BASIC SCREENWRITING 3 Units
Prerequisite: None
Advisory: English 1A with a grade of “C” or better
Acceptable for credit: CSU

This course is a study of the creativity and techniques of screenwriting for short films, feature films, and television. Students will view and analyze exemplary films, participate in writing exercises and workshops, and complete a treatment and master scenes of a full-length project.

20 FILM GENRE 3 Units
Prerequisite: None
Acceptable for credit: CSU
54 hours lecture

This course examines the structure, mythology, style, themes and critical theory of one or more film genre, such as the comedy, the thriller and the film noir.
Area of Business & Family Science

Finance

DEGREE  A.A.—Business:  General, Finance

Finance is an area of increasing importance in the business world. It is experiencing change in organization and style. CRC offers students the opportunity to learn both business and personal finance concepts necessary for survival in the business world and in the home. Whether it is a course or a career, knowledge of finance is an important and essential part of any well-prepared business professional's background. Many people find a fast-paced, exciting career in finance.

Career Options
Stockbroker;  Insurance Representative;  Tax Consultant;  Financial Planner;  Bank Employee;  Entrepreneur;  Government Service,  Investment Counselor;  Real Estate Sales;  Retirement Specialist

Some career options may require more than two years of college study.

Highlights
Hands-on experience on the use of computers for business purposes
Opportunities for work experience in local government and business
Faculty include certified financial planners and investment executives
Involvement in a regional banking and finance Tech Prep program
A lab with tutorial assistance

DEGREE
A.A.—Business:  General, Finance

CODE #1053

REQUIRED PROGRAM ............................................................. Units
Business Core:
ACC 1A  Financial Accounting ................................................... 4
BUS 8  Business Communications ............................................. 3
BUS 15  Managing Diversity in the Workplace .............................. 3
BUS 18A  Business Law .............................................................. 3
BUS 20  Introduction to Business ................................................. 3
BUS 41  Introductory Keyboarding ............................................... 1.5
MKT 20  Principles of Marketing or
MGMT 1  Total Quality Management or
MGMT 24  Techniques of Management ...................................... 3
CIS 3  Introduction to Computer Information Science or
Three (3) units to include:
CIS 1 / JOUR 1  Computer Familiarization - 1 unit and
Two (2) additional units selected from:
ECON 1A  Principles of Economics or
ECON 55  Introduction to Economics........................................... 3

Finance Option:
BUS 62  Selling Professionally ..................................................... 3
BUS 98  Work Experience .......................................................... 3
RE 19  Principles of Real Estate .................................................. 3
ECON 14 / BUS 14  Concepts of Personal Finance ....................... 3

Plus six to seven (6-7) units selected from:
ACC 77; BUS 71A, 71C, 71D, 85A, 85B ..................................... 6-7
TOTAL UNITS REQUIRED .................................................... 44.5 - 45.5

Suggested Electives:
Business 60, 70, 71B, 71E, 71F; Economics 1B;
Human/Career Development (any course); Management 23.

General Education Graduation Requirements - see page 18.

COSUMNES RIVER COLLEGE  2000 - 2001
Area of Careers and Technology

**Fire Technology**

**DEGREE** A.A.—Fire Technology

**CERTIFICATE** Fire Technology

The fire service is one of the most dynamic employers in the country. This CRC program is designed to provide the student with updated skills and knowledge necessary to complete and successfully apply for fire service positions.

The curriculum serves as an inservice program as well as a pre-employment program for students seeking employment or advancement in the profession of urban fire fighting and fire suppression.

**Career Options**
- Firefighter;
- Inspector;
- Investigator;
- Plan Checker;
- Supervisor;
- Manager

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

**Highlights**
- Up-to-date technical information
- Field trips to a variety of fire service locations
- Networking with other fire service members
- Courses offered on instructional television with downlinks to local fire stations for interactive viewing
- Fire Technology work experience internships (Fire Technology 98 for on-the-job experience)

**DEGREE**

**A.A.—Fire Technology**

**CODE #1127**

This curriculum is designed to serve both as an in-service program and as a pre-employment program for students seeking employment or advancement in the profession of urban fire fighting and fire suppression.

**REQUIRED PROGRAM**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>FT 1</td>
<td>Fire Protection Organization</td>
<td>3</td>
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<tr>
<td>FT 2</td>
<td>Fire Prevention Technology</td>
<td>3</td>
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<tr>
<td>FT 3</td>
<td>Fire Protection Equipment and Systems</td>
<td>3</td>
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<tr>
<td>FT 4</td>
<td>Building Construction for Fire Protection</td>
<td>3</td>
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<tr>
<td>FT 5</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
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<tr>
<td>MT 50</td>
<td>Basic Emergency Medical Care*</td>
<td>5</td>
</tr>
<tr>
<td>MT 50A</td>
<td>Basic Emergency Medical Care</td>
<td>5</td>
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Plus fifteen (15) units selected from ................................. 15

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>FT 6</td>
<td>Hazardous Materials (3)</td>
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<tr>
<td>FT 61</td>
<td>Fire Company Organization and Management (3)</td>
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<tr>
<td>FT 62</td>
<td>Fire Service Records and Reports (3)</td>
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<tr>
<td>FT 63</td>
<td>Related Codes and Ordinances (3)</td>
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<tr>
<td>FT 65</td>
<td>Fire Investigation (3)</td>
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<td>FT 66</td>
<td>Fire Tactics and Strategy (3)</td>
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<td>FT 68</td>
<td>Rescue Practices (3)</td>
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<tr>
<td>FT 73</td>
<td>Fire Apparatus (3)</td>
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TOTAL UNITS REQUIRED .................................................. 35

* A current California EMT 1, EMT 1A or EMT IFS certificate will be accepted as satisfactory completion of the Med Tech 50 requirement.

Suggested Electives:
- Environmental Technology 10, 15; Fire Technology 98

General Education Graduation Requirements - See page 18.
CERTIFICATE
Fire Technology
CODE #1127

This curriculum is designed to serve both as an in-service program to improve or maintain job skills and as a pre-employment program for the profession of urban fire fighting and fire suppression.

REQUIRED PROGRAM .......................................................... Units
FT 1  Fire Protection Organization ................................. 3
FT 2  Fire Prevention Technology ................................. 3
FT 3  Fire Protection Equipment and Systems ................. 3
FT 4  Building Construction for Fire Protection .............. 3
FT 5  Fire Behavior and Combustion ............................. 3
MT 50 Basic Emergency Medical Care* ........................ 5
Plus fifteen (15) units selected from ............................ 15

FT 6  Hazardous Materials ........................................ 3
FT 61 Fire Company Organization and Management ....... (3)
FT 62 Fire Service Records and Reports ..................... (3)
FT 63 Related Codes and Ordinances ........................ (3)
FT 65 Fire Investigation ............................................. (3)
FT 66 Fire Tactics and Strategy ................................ (3)
FT 68 Rescue Practices ............................................. (3)
FT 73 Fire Apparatus ............................................... (3)
TOTAL UNITS REQUIRED .............................................. 35

* A current California EMT 1, EMT 1A or EMT IFS certificate will be accepted as satisfactory completion of the Med Tech 50 requirement.

1  FIRE PROTECTION ORGANIZATION 3 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
Provides an introduction to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

2  FIRE PREVENTION TECHNOLOGY 3 Units
Pre or Corequisite: Fire Technology 1
Acceptable for credit: CSU
54 hours lecture
Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationship of fire prevention with fire safety education and detection and suppression systems.

3  FIRE PROTECTION EQUIPMENT AND SYSTEMS 3 Units
Pre or Corequisite: Fire Technology 1
Acceptable for credit: CSU
54 hours lecture
Provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers.

4  BUILDING CONSTRUCTION FOR FIRE PROTECTION 3 Units
Pre or Corequisite: Fire Technology 1
Advisory: Fire Tech 1, or employment as a firefighter
Acceptable for credit: CSU
54 hours lecture
This course is the study of the components of building construction that relate to fire safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, pre-planning fire operations and operating at fires. The development and evolution of building and fire codes will be studied in relationship to past fires in residential, commercial and industrial occupancies.

5  FIRE BEHAVIOR AND COMBUSTION 3 Units
Pre or Corequisite: Fire Technology 1
Acceptable for credit: CSU
54 hours lecture
This course provides the student with theories and fundamentals of how and why fires start, spread and are controlled; an in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents and fire control techniques.

6  HAZARDOUS MATERIALS 3 Units
Prerequisite: None.
Advisory: Fire Tech 1, 2, 3, 4, and 5
54 hours lecture
A study of the fire fighting practices related to hazardous chemicals, including their physical properties, uses in industry, and characteristics when involved in spills, fires, and accidents. Basic information regarding health effects and treatment, and fire department protocols and responsibilities.
49 SPECIAL STUDIES IN FIRE TECHNOLOGY 1-3 Units
(See catalog p. 21)

61 FIRE COMPANY ORGANIZATION AND MANAGEMENT 3 Units
Prerequisite: None.
Advisory: Fire Tech 1, or employment as a firefighter.
54 hours lecture
An in-depth review of the operation, organization and planning concepts of today's fire departments. Emphasizes the functions of management including budgeting, time management, delegation, motivation, and discipline. Explores concepts of continuous improvement, team-building, and principles of quality management, relative to fire service operations.

62 FIRE SERVICE RECORDS AND REPORTS 3 Units
Prerequisite: None.
Advisory: Fire Tech 1 or 61, or employment as a firefighter.
54 hours lecture
A course designed for all members of the fire service in the use of typical records and report systems. Involves knowledge and understanding of the fire department records systems, principles of report writing, applications in the area of pre-fire survey, post-fire reporting, research and planning.

63 RELATED CODES AND ORDINANCES 3 Units
Prerequisite: None.
Advisory: Fire Tech 1, or employment as a firefighter.
54 hours lecture
Familiarization and interpretation of national, state and local codes, ordinances and laws which influence the field of fire protection.

65 FIRE INVESTIGATION 3 Units
Prerequisite: None.
Advisory: Fire Tech 1, or employment as a firefighter.
54 hours lecture
Determining causes of fires (accidental, suspicious and incendiary), types of fires, related laws, introduction to arson and incendiarism, recognizing and preserving evidence, interviewing witnesses and suspects, arrest and detention procedures, court procedures and giving court testimony.

66 FIRE TACTICS AND STRATEGY 3 Units
Prerequisite: None.
Advisory: Fire Tech 1, or employment as a firefighter.
54 hours lecture
The study of fundamental principles of fire tactics and strategy under fireground conditions and procedures for effective development and application of pre-fire plans. Fire emergency problems and definitive coping strategies are examined, related to staffing, equipment and extinguishing agents.

68 RESCUE PRACTICES 3 Units
Prerequisite: None.
Advisory: Fire Tech 1, or employment as a firefighter.
54 hours lecture
Rescue problems and techniques, emergency rescue equipment, toxic gases, chemicals, and diseases, radiation hazards, care of victims, including emergency childbirth, respiration and resuscitation, extrication and other emergency conditions.

73 FIRE APPARATUS 3 Units
Prerequisite: None.
Advisory: Fire Tech 1, or employment as a firefighter.
54 hours lecture
A study of the design, specifications, and performance capabilities of fire apparatus. Effective utilization of equipment on the fireground will be the focus with emphasis on practical applications.

78 EMERGENCY MEDICAL TECHNICIAN 1 Unit
Prerequisite: Valid Emergency Medical Technician (EMT) certificate
20 hours lecture, 4 hours laboratory
Persons who hold a valid Emergency Medical Technician I certificate, or a certificate that has been expired for less than one year shall be admitted. Consists of classroom instruction, simulation and supervised field instruction. May be taken four times for credit.

79 HAZARDOUS MATERIALS FIRST RESPONDER 3 Units
Prerequisite: None.
54 hours lecture
To provide the likely first responder (usually public safety) with the necessary awareness of hazardous material incident response techniques. Also, to conduct a safe situation evaluation, identify the hazard and control and contain the hazardous materials, whenever safety permits. This course identifies a need for agency and industry personnel likely to be the first person with the responsibility to deal with a hazardous material incident.

98 WORK EXPERIENCE IN FIRE TECHNOLOGY 1-4 Units
(See catalog p. 22)
Area of Humanities & Social Science

Foreign Languages

French
German
Spanish
Vietnamese

CO offers the basic grammar and conversation courses in French, German, Spanish and Vietnamese. Students will be able to understand the spoken language, to speak with reasonable fluency, and to write at their speaking level.

Career Options
Airlines/Travel; Banking; Bilingual Education/Teacher's Aide; Bilingual Telecommunications; Emergency Services; Foreign Service; Foreign Language Teacher; Import & Export; Intelligence/Military Service; International Business; IRS/State Franchise Tax Board; Overseas Employment: Business & Commerce; Law Enforcement/Correctional Officer; Social Security Officer; Social Service; Translating & Interpreting; Tourism

Some career options may require more than two years of college study.

Highlights
Courses in French, German, Spanish, and Vietnamese
Multimedia, interactive language lab with Internet capabilities
Internationally trained faculty and staff
Oral Proficiency Certification in Spanish and Vietnamese

French

Native speakers of any of the languages offered in the department who have high school-equivalent reading and writing skills in their native language should enroll in the 2A level course (or above) of their native language.

1A ELEMENTARY FRENCH 4 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This is a first semester introduction to the French language. It is designed for beginning students with little or no previous exposure to the language. It is characterized by an emerging ability to understand and produce appropriate responses in high-frequency situations utilizing learned materials. Speaking and writing will be comprehensible to a sympathetic listener. Verbal and written expression is limited to short, culturally appropriate communication. Students will acquire a knowledge of the geography, culture and people of regions where French is spoken and of French-speakers' contributions to North American and world cultures. (CAN FREN 2) (with French 1B, CAN FREN SEQ A)

1B ELEMENTARY FRENCH 4 Units
Prerequisite: French 1A with a grade of "C" or better.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This is second semester Elementary French. It is designed for students who have completed French 1A or two years of high school French. It provides refinement of skills begun in 1A. Students will gain increased accuracy and ability to understand and produce appropriate responses in high-frequency situations utilizing learned materials. Speaking and writing will be comprehensible to a sympathetic listener. Verbal and written expression will be limited to short, culturally appropriate communication on a broader scale than at the 1A level. Students will acquire a knowledge of the geography, culture and people of regions where French is spoken and of French-speakers' contributions to North American and world cultures. (CAN FREN 4) (with French 1A, CAN FREN SEQ A)
2A INTERMEDIATE FRENCH 4 Units
Prerequisite: French 1B with a grade of “C” or better.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This is first semester Intermediate French. It is designed for students who have completed French 1B or three years of high school French. It provides refinement of skills attained in 1B. Students will work toward the ability to create with the language without relying on learned responses, to understand main ideas in routine speech and to understand main ideas in written texts. Listening and reading comprehension continue to develop; speaking and writing will be comprehensible to a somewhat sympathetic native speaker. Students will develop the ability to respond in an unrehearsed manner on concrete topics in known situations. Written expression will meet limited personal needs in culturally appropriate language at a higher level of accuracy than found in 1B. Students will continue acquisition of knowledge of geography, culture and people of regions where French is spoken and of French-speakers' contributions to North American and world cultures.

2B INTERMEDIATE FRENCH 4 Units
Prerequisite: French 2A with a grade of “C” or better.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This is second semester Intermediate French. It is designed for students who have completed French 2A or four years of high school French. It provides continued development of skills attained in 2A. The focus will be the development of written narratives and expository prose combined with increased cultural awareness. Emphasis will be on culturally authentic reading and writing through the introduction of basic literary analysis. Students will develop the ability to handle complicated situations using past and future time frames. Students will continue acquisition of knowledge of geography, culture and people of regions where French is spoken and of French-speakers' contributions to North American and world cultures.

42A CONVERSATIONAL FRENCH, ELEMENTARY 3 Units
Prerequisite: None.
36 hours lecture, 54 hours laboratory
This is a first semester introduction to the French language. It is designed for beginning students with little or no previous exposure to the language. It is characterized by an emerging ability to understand and produce appropriate responses in high-frequency situations utilizing learned materials. Speaking and writing will be comprehensible to a sympathetic listener. Verbal and written expression is limited to short, culturally appropriate communication. Students will acquire a knowledge of the geography, culture and people of regions where French is spoken and of French-speakers' contributions to North American and world cultures. This class consists of two hours lecture and one hour of laboratory work conducted in the classroom each week and two hours of laboratory work conducted in the Language Laboratory each week.

42B CONVERSATIONAL FRENCH, INTERMEDIATE 2 Units
Prerequisite: French 2A, French 42A.
Acceptable for credit: CSU
18 hours lecture, 54 hours laboratory
This is second semester Intermediate French. It is designed for students who have completed French 42A or four years of high school French. It provides continued development of skills attained in 42A. The focus will be on culturally authentic reading and writing through the introduction of basic literary analysis. Students will develop the ability to handle complicated situations using past and future time frames. Students will continue acquisition of knowledge of geography, culture and people of regions where French is spoken and of French-speakers' contributions to North American and world cultures. This course will consist of one hour of lecture and two hours of laboratory work conducted in the classroom each week and one hour of laboratory work conducted in the Language Laboratory each week.

46 TEACHER AIDE 1 - 4 Units
Prerequisite: The appropriate advanced class.
Acceptable for credit: CSU
9 hours lecture and 27 hours laboratory equals one (1) unit
For students who want to develop an in-depth understanding of various aspects of language such as language function, composition or reading and to learn to work with individual students and small groups of students. Open entry and exit. May be taken two times for credit to a maximum of six units.

49 SPECIAL STUDIES IN FRENCH 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU, UC
German

Native speakers of any of the languages offered in the department who have high school-equivalent reading and writing skills in their native language should enroll in the 2A level course (or above) of their native language.

1A ELEMENTARY GERMAN 4 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
This is the first semester introduction to the German language. It is designed for beginning students with little or no previous exposure to the language. It is characterized by an emerging ability to understand and produce appropriate responses in high-frequency situations utilizing learned materials. Speaking and writing will be comprehensible to a sympathetic listener. Verbal and written expression is limited to short, culturally appropriate communication. Students will acquire a knowledge of the geography, culture and people of regions where German is spoken and of German-speakers’ contributions to North American and world cultures.

1B ELEMENTARY GERMAN 4 Units
Prerequisite: German 1A with a grade of "C" or better or two years of high school German.
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
This is second semester Elementary German. It is designed for students who have completed German 1A or two years of high school German. It provides refinement of skills begun in 1A. Students will gain increased accuracy and ability to understand and produce appropriate responses in high frequency situations utilizing learned materials. Speaking and writing will be comprehensible to a sympathetic listener. Verbal and written expression will be limited to short, culturally appropriate communication on a broader scale than at the 1A level. Students will acquire a knowledge of the geography, culture and people of regions where German is spoken and of German-speakers’ contribution to North American and world cultures.

2A INTERMEDIATE GERMAN 4 Units
Prerequisite: German 1B with a grade of "C" or better or three years of high school German.
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
This is first semester Intermediate German. It is designed for students who have completed German 1B or three years of high school German. It provides refinement of skills attained in 1B. Students will work toward the ability to create with the language without relying on learned responses, to understand main ideas in routine speech and to understand main ideas in written texts. Listening and reading comprehension continue to develop; speaking and writing will be comprehensible to a somewhat sympathetic native speaker. Students will develop the ability to respond in an unrehearsed manner on concrete topics in known situations. Written expression will meet limited personal needs in culturally appropriate language at a higher level of accuracy than found in 1B. Students will continue acquisition of knowledge of geography, culture and people of regions where German is spoken and of German-speakers’ contributions to North American and world cultures.

42A CONVERSATIONAL GERMAN, INTERMEDIATE 2 Units
Prerequisite: German 50B with a grade of "C" or better or three years of high school German.
Acceptable for credit: CSU
18 hours lecture, 54 hours laboratory
This course provides refinement of skills attained in 50B. Students will work toward the ability to create with the language without relying on learned response, to understand main ideas in routine speech and to understand main ideas in written texts. Listening and reading comprehension continue to develop; speaking and writing will be comprehensible to a somewhat sympathetic native speaker. Students will develop the ability to respond in an unrehearsed manner on concrete topics in known situations. Written expression will meet limited personal needs in culturally appropriate language at a higher level of accuracy than found in 1B. Students will continue acquisition of knowledge of geography, culture and people of regions where German is spoken and of German-speakers’ contributions to North American and world cultures. This course will consist of one hour of lecture and two hours of laboratory work conducted in the classroom each week and one hour of laboratory work conducted in the Language Laboratory each week.
50A CONVERSATIONAL GERMAN, 3 Units
ELEMENTARY
Prerequisite: None.
36 hours lecture, 54 hours laboratory
This is a first semester introduction to the German language. It is designed for beginning students with little or no previous exposure to the language. It is characterized by an emerging ability to understand and produce appropriate responses in high-frequency situations utilizing learned material. Speaking and writing will be comprehensible to a sympathetic listener. Verbal and written expression is limited to short, culturally appropriate communication. Students will acquire a knowledge of the geography, culture and people of regions where German is spoken and of German-speakers' contributions to North American and world cultures. This class consists of two hours lecture and one hour of laboratory work conducted in the classroom each week and two hours of laboratory work conducted in the Language Laboratory each week.

50B CONVERSATIONAL GERMAN, 3 Units
ELEMENTARY
Prerequisite: German 50A with a grade of "C" or better.
36 hours lecture, 54 hours laboratory
This is second semester Elementary German. It is designed for students who have completed German 50A or two years of high school German. It provides refinement of skills begun in 50A. Students will gain increased accuracy and ability to understand and produce appropriate responses in high-frequency situations utilizing learned materials. Speaking and writing will be comprehensible to a sympathetic listener. Verbal and written expression is limited to short, culturally appropriate communication. Students will acquire a knowledge of the geography, culture and people of regions where German is spoken and of German-speakers' contributions to North American and world cultures. This class consists of two hours lecture and one hour of laboratory work conducted in the classroom each week and two hours of laboratory work conducted in the Language Laboratory each week.

Spanish
Native speakers of any of the languages offered in the department who have high school-equivalent reading and writing skills in their native language should enroll in the 2A level course (or above) of their native language.

1A ELEMENTARY SPANISH 4 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This is the first semester introduction to the Spanish language. It is designed for beginning students with little or no previous exposure to the language. It is characterized by an emerging ability to understand and produce appropriate responses in high-frequency situations utilizing learned materials. Speaking and writing will be comprehensible to a sympathetic listener. Verbal and written expression is limited to short, culturally appropriate communication. Students will acquire a knowledge of the geography, culture and people of regions where Spanish is spoken and of Spanish-speakers' contributions to North American and world cultures.

2A INTERMEDIATE SPANISH 4 Units
Prerequisite: Spanish 1B with a grade of "C" or better.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This is first semester Intermediate Spanish. It is designed for students who have completed Spanish 1A or two years of high school Spanish. It provides refinement of skills begun in 1A. Students will gain increased accuracy and ability to understand and produce appropriate responses in high-frequency situations utilizing learned materials. Speaking and writing will be comprehensible to a sympathetic listener. Verbal and written expression is limited to short, culturally appropriate communication on a broader scale than at the 1A level. Students will acquire a knowledge of the geography, culture and people of regions where Spanish is spoken and of Spanish-speakers' contribution to North American and world cultures.

(CAN SPAN 8)
2B  INTERMEDIATE SPANISH  4 Units
Prerequisite: Spanish 2A with a grade of "C" or better.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This is second semester Intermediate Spanish. It is designed for students who have completed Spanish 2A or four years of high school Spanish. It provides continued development of skills attained in 2A. The focus will be the development of written narratives and expository prose combined with increased cultural awareness. Emphasis will be on culturally authentic reading and writing through the introduction of basic literary analysis. Students will develop the ability to handle complicated situations using past and future time frames. Students will continue acquisition of knowledge of geography, culture and people of regions where Spanish is spoken and of Spanish-speakers' contributions to North American and world cultures.

35  ADVANCED READING 3 Units
AND CONVERSATION
Prerequisite: Spanish 1B.
Acceptable for credit: CSU, UC
54 hours lecture
Advanced reading and conversation in Spanish with emphasis on building vocabulary and review of grammar. Introduction to literature of the Hispanic world. May be taken two times for credit.

42A  CONVERSATIONAL SPANISH, 2 Units
INTERMEDIATE
Prerequisite: Spanish 50B with a grade of "C" or better.
Acceptable for credit: CSU
18 hours lecture, 54 hours laboratory
This course provides refinement of skills attained in 50B. Students will work toward the ability to create with the language without relying on learned responses, to understand main ideas in routine speech and to understand main ideas in written texts. Listening and reading comprehension continue to develop; speaking and writing will be comprehensible to a somewhat sympathetic native speaker. Students will develop the ability to respond in an unrehearsed manner on concrete topics in known situations. Written expression will meet limited personal needs in culturally appropriate language at a higher level of accuracy than found in 50B. Students will continue acquisition of knowledge of geography, culture and people of regions where Spanish is spoken and of Spanish-speakers' contributions to North American and world cultures. This course will consist of one hour of lecture and two hours of laboratory work conducted in the classroom each week and one hour of laboratory work conducted in the Language Laboratory each week.

42B  CONVERSATIONAL SPANISH, 2 Units
INTERMEDIATE
Prerequisite: Spanish 2A, or Spanish 42A.
Acceptable for credit: CSU
18 hours lecture, 54 hours laboratory
This is second semester Intermediate Spanish. It is designed for students who have completed Spanish 42A or four years of high school Spanish. It provides continued development of skills attained in 42A. The focus will be the development of written narrative and expository prose combined with increased cultural awareness. Emphasis will be placed on culturally authentic reading and writing through the introduction of basic literary analysis. Students will develop the ability to handle complicated situations using past and future time frames. Students will continue acquisition of knowledge of geography, culture and people of regions where Spanish is spoken and of Spanish-speakers' contributions to North American and world cultures. This course will consist of one hour of lecture and two hours of laboratory work conducted in the classroom each week and one hour of laboratory work conducted in the Language Laboratory each week.

46  TEACHER AIDE 1-4 Units
Prerequisite: The appropriate advanced class.
Acceptable for credit: CSU
9 hours lecture, 27 hours laboratory equals one (1) unit
For students who want to develop an in-depth understanding of various aspects of language such as language function, composition or reading and to learn to work with individual students and small groups of students. Open entry and exit. May be taken two times for credit, for a maximum of six units.

49  SPECIAL STUDIES IN SPANISH 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU, UC

50A  CONVERSATIONAL SPANISH, 3 Units
ELEMENTARY
Prerequisite: None.
36 hours lecture, 54 hours laboratory
This is a first semester introduction to the Spanish language. It is designed for beginning students with little or no previous exposure to the language. It is characterized by an emerging ability to understand and produce appropriate responses in high-frequency situations utilizing learned materials. Speaking and writing will be comprehensible to a sympathetic listener. Verbal and written expression is limited to short, culturally appropriate communication. Students will acquire a knowledge of the geography, culture and people of regions where Spanish is spoken and of Spanish-speakers' contributions to North American and world cultures. This class consists of two hours lecture and one hour of laboratory work conducted in the classroom each week and two hours of laboratory work conducted in the Language Laboratory each week.
50B CONVERSATIONAL SPANISH, 3 Units  
ELEMENTARY
Prerequisite: Spanish 50A.
36 hours lecture, 54 hours laboratory
This is second semester Elementary Spanish. It is designed for students who have completed Spanish 50A or two years of high school Spanish. It provides refinement of skills begun in 50A. Students will gain increased accuracy and ability to understand and produce appropriate responses in high frequency situations utilizing learned materials. Speaking and writing will be comprehensible to a sympathetic listener. Verbal and written expression will be limited to short, culturally appropriate communication on a broader scale than at the 50A level. Students will acquire a knowledge of the geography, culture and people of regions where Spanish is spoken and of Spanish-speakers' contribution to North American and world cultures. This class consists of two hours lecture and one hour of laboratory work conducted in the classroom each week and two hours of laboratory work conducted in the Language Laboratory each week.

52A SPANISH FOR THE PROFESSIONS - 3 Units  
INTERMEDIATE
Prerequisite: Spanish 1B or Spanish 50B.
Acceptable for credit: CSU
54 hours lecture
This is an intermediate course designed for persons in law enforcement, business and finance, social services and the medical professions. The emphasis of the course is on acquiring verbal facility in interviewing, collecting data, giving instructions and general courtesies. The course will help students acquire language proficiency while reviewing and broadening the grammar foundation attained in elementary Spanish. It will introduce specific vocabulary necessary for professionals to communicate successfully in a professional situation. Cultural and behavioral attitudes appropriate for relating to persons of Hispanic heritage will be suggested. This course may be taken twice for credit.

Vietnamese

Native speakers of any of the languages offered in the department who have high school-equivalent reading and writing skills in their native language should enroll in the 2A level course (or above) of their native language.

1A ELEMENTARY VIETNAMESE 4 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This course will provide an introduction to the Vietnamese language at the Novice Low Level, which is characterized by an emerging ability to understand and produce appropriate responses in high-frequency situations utilizing learned materials, standardized messages, phrases and expressions including numbers, dates, days, weather, time, foods and Vietnamese names. Speaking and writing will be comprehensible to a sympathetic listener, including a native speaker used to interacting with non-native speakers. Verbal and written expression is limited to short, culturally-appropriate communication, including kinship terms and nouns of address. Students will acquire a knowledge and an appreciation of the geography, culture and people of regions where Vietnamese is spoken and of Vietnamese-speakers' contributions to North American and world-wide culture.

1B ELEMENTARY VIETNAMESE 4 Units
Prerequisite: Vietnamese 1A with a grade of "C" or better.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This is second semester Elementary Vietnamese. It is designed for students who have completed Vietnamese 1A or two years of high school Vietnamese. It provides refinement of skills begun in 1A. Students will gain increased accuracy and ability to understand and produce appropriate responses in high frequency situations utilizing learned materials. Speaking and writing will be comprehensible to a sympathetic listener. Verbal and written expression will be limited to short, culturally appropriate communication on a broader scale than at the 1A level. Students will acquire a knowledge of the geography, culture and people of regions where Vietnamese is spoken and of Vietnamese-speakers' contributions to North American and world cultures.

2A INTERMEDIATE VIETNAMESE 4 Units
Prerequisite: Vietnamese 1B with a grade of "C" or better.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This is first semester Intermediate Vietnamese. It is designed for students who have completed Vietnamese 1B or three years of high school Vietnamese. It provides refinement of skills attained in 1B. Students will work toward the ability to create with the language without relying on learned responses, to understand main ideas in routine speech and to understand main ideas in written texts. Listening and reading comprehension continue to develop; speaking and writing will be comprehensible to a somewhat sympathetic native speaker. Students will develop the ability to respond in an unrehearsed manner on concrete topics in known situations. Written expression will meet limited personal needs in culturally-appropriate language at a higher level of accuracy than found in 1B. Students will continue acquisition of knowledge of geography, culture and people of regions where Vietnamese is spoken and of Vietnamese-speakers' contributions to North American and world cultures.

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2B INTERMEDIATE VIETNAMESE 4 Units
Prerequisite: Vietnamese 2A.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This is second semester Intermediate Vietnamese. It is designed for students who have completed Vietnamese 2A or four years of high school Vietnamese. It provides continued development of skills attained in 2A. The focus will be the development of written narratives and expository prose combined with increased cultural awareness. Emphasis will be placed on culturally authentic reading and writing through the introduction of basic literary analysis. Students will develop the ability to handle complicated situations using past and future time frames. Students will continue acquisition of knowledge of geography, culture and people of regions where Vietnamese is spoken and of Vietnamese-speakers' contributions to North American and world cultures.

42A CONVERSATIONAL VIETNAMESE 2 Units
INTERMEDIATE
Prerequisite: Vietnamese 50B with a grade of "C" or better.
Acceptable for credit: CSU
18 hours lecture, 54 hours laboratory
This course provides refinement of skills attained in 50B. Students will work toward the ability to create with the language without relying on learned responses, to understand main ideas in routinespeach and to understand main ideas in written texts. Listening and reading comprehension continue to develop; speaking and writing will be comprehensible to a somewhat sympathetic native speaker. Students will develop the ability to respond in an unrehearsed manner to concrete topics in known situations. Written expression will meet limited personal needs in culturally appropriate language at a fairly high level of accuracy, higher than found in 1B. Students will continue acquisition of knowledge of geography, culture and people of regions where Vietnamese is spoken and of Vietnamese-speakers' contributions to North American and world cultures. This course will consist of one hour of lecture and two hours of laboratory work conducted in the classroom each week and one hour of laboratory work conducted in the Language Laboratory each week.

42B CONVERSATIONAL VIETNAMESE 2 Units
INTERMEDIATE
Prerequisite: Vietnamese 42A.
Acceptable for credit: CSU
18 hours lecture, 54 hours laboratory
This is second semester Intermediate Vietnamese. It is designed for students who have completed Vietnamese 42A or four years of high school Vietnamese. It provides continued development of skills attained in 42A. The focus will be the development of written narratives and expository prose combined with increased cultural awareness. Emphasis will be placed on culturally authentic reading and writing through the introduction of basic literary analysis. Students will develop the ability to handle complicated situations using past and future time frames. Students will continue acquisition of knowledge of geography, culture and people of regions where Vietnamese is spoken and of Vietnamese-speakers' contributions to North American and world cultures. This course will consist of one hour of lecture and two hours of laboratory work conducted in the classroom each week and one hour of laboratory work conducted in the Language Laboratory each week.

50A CONVERSATIONAL VIETNAMESE 3 Units
ELEMENTARY
Prerequisite: None.
36 hours lecture, 54 hours laboratory
This is a first semester introduction to the Vietnamese language. It is designed for beginning students with little or no previous exposure to the language. It is characterized by an emerging ability to understand and produce appropriate responses in high-frequency situations utilizing learned materials. Speaking and writing will be comprehensible to a sympathetic listener. Verbal and written expression is limited to short, culturally appropriate communication. Students will acquire a knowledge of the geography, culture and people of regions where Vietnamese is spoken and of Vietnamese-speakers' contributions to North American and world cultures. This class consists of two hours lecture and one hour of laboratory work conducted in the classroom each week and two hours of laboratory work conducted in the Language Laboratory each week.

50B CONVERSATIONAL VIETNAMESE 3 Units
ELEMENTARY
Prerequisite: Vietnamese 50A with a grade of "C" or better.
36 hours lecture, 54 hours laboratory
This is second semester Elementary Vietnamese. It is designed for students who have completed Vietnamese 50A or two years of high school Vietnamese. It provides refinement of skills begun in 50A. Students will gain increased accuracy and ability to understand and produce appropriate responses in high-frequency situations utilizing learned materials. Speaking and writing will be comprehensible to a sympathetic listener. Verbal and written expression will be limited to short, culturally appropriate communication on a broader scale than at the 50A level. Students will acquire a knowledge of the geography, culture and people of regions where Vietnamese is spoken and of Vietnamese-speakers' contributions to North American and world cultures. This class consists of two hours lecture and one hour of laboratory work conducted in the classroom each week and two hours of laboratory work conducted in the Language Laboratory each week.
Area of Counseling

General Education

DEGREE A.A.—General Education Transfer
(degree requirements, see page 18)

CRC's general education degree is designed to provide students with a program of solid preparation emphasizing university studies. This program is aligned with the CSU General Education Breadth Requirements or the Intersegmental General Education Transfer Curriculum (IGETC) offering students a wide variety of transfer courses from which to choose. It is important to emphasize, however, that transferability is a matter determined by receiving institutions and that catalog rights may also affect transferability. University programs have varying lower division requirements, and these may also affect selection of courses. Therefore, any student interested in this degree is strongly advised to meet with a Counselor prior to enrolling in classes.

Degree Requirements:

A. Completion of a minimum of 60 units with an overall GPA of 2.0.
   12 units must be earned at Cosumnes River College.
   (See page 18)

B. One of the following options:
   
   **Option A:**
   CSU General Education Breadth (39 units)
   (See page 24)

   **Option B:**
   Intersegmental General Education Transfer Curriculum
   (IGETC- minimum 34 units)
   (See page 27)

C. CRC General Education (minimum 21 units)
   (See page 18)

D. Ethnic/Multicultural Studies Requirement (3 units)
   (See page 18)

E. Graduation Competencies in Reading, Writing and Math.
   (See page 18)
Area of Science, Mathematics & Engineering

**Geography**

**DEGREE**  A.A.—Science and Mathematics  
(see Science... page 258)

**CERTIFICATE**  Applications of Desktop GIS,  (see Science, page 259)  
(Geography emphasis)

The study of Geography investigates the spatial variation in natural and human phenomena such as climate, landforms, vegetation, cultural diversity, and resource utilization. Geographers use this understanding to explain the character of regions; to ascertain the ways in which humans, historical and contemporary, have utilized and shaped the earth’s surface; and to predict future patterns and interactions between humans and the natural environment. The CRC program is particularly concerned with (a) the Pacific Rim; (b) the non-industrial world and (c) the physical and cultural diversity of California, and their mutual interactions in an era of increasing environmental limitations.

**Career Options**

- Environmental Consultant; Educator (elementary through university); Cartographer; Urban and Rural Planning; Natural Resource Management (park/forest ranger); Travel Industry Agent/Consultant; Real Estate (forecasting and consulting); International Development; Industrial Development Specialist; Marketing Area Analyst; Environmental Research Specialist; Intelligence Analyst; Climatologist; Demographer; GIS Analyst

Some career options may require more than two years of college study.

**Highlights**

- Comprehensive lower division course offerings, including a Physical Laboratory, Field Course, and training in Geographic Information Systems (GIS)
- Field trips to Yosemite, Marin Headlands and Lake Tahoe
- Internships available with State of California, County of Sacramento, and Federal Land Management Agencies
- Three courses fulfill the CRC and CSU multicultural requirement
- A Mathematics, Engineering and Science Achievement (MESA) program
Geography

1  ELEMENTS OF PHYSICAL GEOGRAPHY  3 Units
   Prerequisite: None.
   Acceptable for credit:  CSU, UC
   54 hours lecture
   This course investigates the interrelationships between Earth and humans, with an emphasis on natural systems (solar energy balance, weather and climate, water resources, landforms, natural hazards, vegetation, and soil). Relevant application of these elements to today's world is stressed as well as human-environment interaction. A field trip is required to relate class discussions to the real world. (CAN GEOG 2)

2  ELEMENTS OF CULTURAL GEOGRAPHY  3 Units
   Prerequisite: None.
   Acceptable for credit:  CSU, UC
   54 hours lecture
   This course investigates the diverse patterns of human settlement, development, and movement on earth, which evolved as a result of cultural and environmental factors. Emphasis is placed on understanding global population and migration patterns, language, religion, ethnicity, political and economic systems, development issues, agriculture and urbanization. (CAN GEOG 4)

5  RESOURCES, ENVIRONMENT & PEOPLE - ECONOMIC GEOGRAPHY  3 Units
   Prerequisite: None.
   Acceptable for credit:  CSU, UC
   54 hours lecture
   This course investigates the global distribution of agriculture, forestry, mining, manufacturing, trade and transportation. The course offers an analysis of multinational corporations, technology and the new service economy, the changing economic role of women and the shifting location of employment and community decline. The growing importance of global interdependence and environmental constraints are important themes. Field trips in the Sacramento area link the class material to the real world.

6  WEATHER AND CLIMATE  3 Units
   Prerequisite: None
   Advisory: Geography 1 and Geography 11
   Acceptable for credit:  CSU
   54 hours lecture
   This course is an introduction to atmospheric processes including energy and moisture exchanges, atmospheric pressure, winds, and global circulation. Severe weather conditions such as hurricanes and tornadoes are also studied. World, regional, and local climates are investigated. Student work will include weather observations and analysis of atmospheric data using charts, weather maps and radar and satellite imagery from the internet and other sources.

9  INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS  4 Units
   Prerequisite: None. (Not open to students who have received credit for Ev/T 9.)
   Advisory: Computer Information Science 1 and Geography 1.
   Acceptable for credit:  CSU
   54 hours lecture, 54 hours laboratory
   A Geographic Information System (GIS) is a computer-based data processing tool used to manage and analyze spatial information. This course introduces students to the theory and techniques of GIS including spatial data capture, management and analysis, and cartographic output. Emphasis is placed on the use of technical analysis and software in order to provide students with skills and a conceptual base on which they can build further expertise in GIS. This course is especially useful for Geography, Environmental Science, Economics, and land-use planning majors.

10  WORLD REGIONAL GEOGRAPHY  3 Units
    Prerequisite: None.
    Acceptable for credit:  CSU, UC
    54 hours lecture
    This course is a global survey of the world’s major geographic realms: their physical environments, cultures and economies; their origins, interactions and global roles. Basic geographic concepts and ideas are used to study and compare cultures, landscapes, resources, livelihood and land use across Earth. Explanation for the globalization of culture and economy, the widening gap between rich and poor countries, and ethnic diversity in the United States and abroad is stressed throughout the course. A major goal of this course is to improve each student's "mental map of the world."

11  PHYSICAL GEOGRAPHY LABORATORY  1 Unit
    Prerequisite: None. (Geography 1 should be taken concurrently.)
    Acceptable for credit:  CSU, UC
    54 hours laboratory
    This course provides "hands-on" study of the basic principles and concepts involved in understanding Earth's physical environment. Lab topics include observation, measurement and analysis of Earth's energy balance, weather and climate, vegetation, landforms, and natural hazards, as well as topographic map reading, interpretation, and navigation skills.

13  INTRODUCTION TO THE GLOBAL POSITIONING SYSTEM (GPS)  1 Unit
    Prerequisite: None.
    Advisory: Geography 1, Geography 11
    Acceptable for credit:  CSU
    18 hours lecture
    The Global Positioning System (GPS) is transforming mapping and navigating in the same way the telephone transformed communications. This course will introduce students to the concepts and hands-on operation of GPS technology, including computer interfaces, GIS software, and real-world applications. Recommended for anyone needing to acquire, process, or display location information.
19 INTRODUCTION TO DESKTOP GIS
GEOPHYSICAL INFORMATION SYSTEMS APPLICATIONS
Prerequisite: None. (Not open to students who have received credit for EnvT 19A.)
Advisory: Computer Information Science 90
Acceptable for credit: CSU
30 hours lecture, 72 hours laboratory
Geographic Information Systems (GIS) are systems of computers and people used to integrate spatial data in order to make a decision. Through the use of ArcView GIS software, this course builds on the foundation of GIS techniques learned in Geography 19A. Students will learn techniques for GIS data input, spatial analysis, methods of ArcView customization, and database management. The basics of spatial data models will be discussed. Students will learn how to input spatial data, normalize spatial data, perform spatial analysis, measure distances, and output GIS based maps.

19A FUNDAMENTALS OF GEOGRAPHIC INFORMATION SYSTEMS
Prerequisite: None. (Not open to students who have received credit for EnvT 19A.)
Advisory: Computer Information Science 90
Acceptable for credit: CSU
12 hours lecture, 18 hours laboratory
Geographic Information Systems (GIS) are computer mapping programs that allow rapid and sophisticated analysis of spatial data. This course provides a practical introduction to basic functionality of desktop GIS. Students will learn GIS skills including identifying zones, measuring distances, calculating areas, integrating spatial data and displaying output. The types of information analyzed in GIS may include environmental, economic, political, social, health care, and transportation.

19B INTRODUCTION TO USING DESKTOP GIS
Prerequisite: None. (Not open to students who have received credit for EnvT 19B.)
Advisory: Geography 19A / EnvT 19A
Acceptable for credit: CSU
12 hours lecture, 18 hours laboratory
Geographic Information Systems (GIS) are systems of computers and people used to generate spatial data in order to make a decision. Through the use of ArcView GIS software, this course builds on the foundation of GIS techniques learned in Geography 19A. Students will learn techniques for GIS data input, spatial analysis, methods of ArcView customization, and database management. The basics of spatial data models will be discussed. Students will learn how to input spatial data, normalize spatial data, perform spatial analysis, measure distances, and output GIS based maps.

19C PROJECTS USING DESKTOP GIS
Prerequisite: None. (Not open to students who have received credit for EnvT 19C.)
Advisory: Geography 19A / Environmental Technology 19A
Acceptable for credit: CSU
6 hours lecture, 36 hours laboratory
Geographic Information Systems (GIS) are increasingly being used by business, industry, and research institutions in place of other analyses of spatial data. This course is designed to allow students to produce projects using desktop GIS. The students will work in groups to plan and produce a project including data selection and input, spatial data analysis, production of output materials, and presentation of results. The types of information analyzed may include political, social, health, environmental, or economic data. The final grade will be partly based on the project produced.

21 GEOGRAPHY OF CALIFORNIA
3 Units
Prerequisite: None. Acceptable for credit: CSU, UC
54 hours lecture
This course investigates California’s physical, cultural, and economic environments, analyzing cardinal changes resulting from both natural and human interaction. The emphasis is on cultural diversity, human alteration of the landscape, and contemporary problems resulting from accelerated competition for natural, financial, and human resources.

21H HONORS SEMINAR: NATURE & CULTURE
3 Units
Prerequisite: None. (Not open to students who have received credit for Humanities 21.)
Acceptable for credit: CSU
54 hours lecture
This seminar examines multicultural interpretations and use of the environment from the Native American era to modern day using various geographic regions as case studies. Interdisciplinary in approach, this course draws upon the natural sciences, humanities, and social sciences to explain how the physical environment has been interpreted, utilized, and impacted differently by various cultures through time. Two field trips are required as part of this seminar. This course is intended for academically-accomplished students, regardless of major. Permission of instructor needed for enrollment in this honors course.

27A INTRODUCTION TO GIS PROGRAMMING
2 Units
Prerequisite: Geography 19B
Acceptable for credit: CSU
30 hours lecture, 18 hours laboratory
This course introduces students to programming skills in Geographic Information Systems. Fundamentals of Object Oriented Programming Languages, programming techniques in ArcView’s Avenue and introduction to GIS application development will be covered. Students will learn how to customize the ArcView interface and create and modify commands. Students will use Avenue to integrate GIS with existing software, automate GIS operations and customize methods of GIS analysis.
46  TEACHER AIDE  1-4 Units
Prerequisite: A grade of "B" or better in the course for which the student is going to be a teacher aide.
Acceptable for credit: CSU
Completion of 9 hours lecture and 27 hours in-class tutoring equals one unit of credit.
This course is for students who want to develop an indepth understanding of the fundamentals of geography and learn to work with individual students and small groups of students. Students may take this course twice for credit, earning a total of 6 units maximum.

49  SPECIAL STUDIES IN GEOGRAPHY  1 - 3 Units
(See catalog page 21)
Acceptable for credit: CSU, UC — See Counselor
Area of Science, Mathematics & Engineering

Geology

DEGREE
A.A.—Science and Mathematics
(see Science ... page 258)

CERTIFICATE
Applications of Desktop GIS (Earth Science emphasis)
(see page 259)

Geology is the study of the origin and evolution of the earth, utilizing the principles of mathematics, chemistry, physics and biology. The concept of geologic time and the principles of uniformitarianism help geologists to understand the processes that shape the earth and its environments. Geologists study rocks, minerals and fossils in an effort to draw conclusions about both the earth's observable surface processes that meet the eye, and the earth's interior.

At CRC Geology courses satisfy lower division General Education requirements for the A.A, A.S., B.A, and B.S. degrees. For transfer students earning a Baccalaureate Degree in Geology, satisfactory completion of the CRC Geology curriculum provides a solid foundation and the standard prerequisites for upper division coursework. Geology majors planning to transfer to four-year institutions should take Geology 1, 2, 3, and 4.

Career Options
- Geologist (for private industry or the government); Environmental planner or consultant; Earth Science Educator (middle school through university); Paleontologist; Petrologist; Natural Resource Management; Cartographer/Stratigrapher; Park Naturalist

Some career options may require more than two years of college study.

Highlights
- Comprehensive lower division course offerings, including a Physical Laboratory, Mineral Laboratory and Field Course
- Dynamic geologic environment near the Sierra Nevada, San Andreas Fault, and Sacramento Delta
- Internships available with State of California, County of Sacramento, and Federal Land Management Agencies
- A Mathematics, Engineering and Science Achievement (MESA) program
Geology

1 PHYSICAL GEOLOGY 3 Units
Prerequisite: None. Recommend that Geology 2 be taken concurrently.
Acceptable for credit: CSU, UC
54 hours lecture
Physical geology is an introduction to the study of the scientific composition and dynamics of the earth from the atomic scale of minerals to the global scale of plate tectonics. The composition, structure, and dynamics of the layered earth include a short introduction to minerals, rocks, weathering, erosion, earthquakes, volcanoes, landslides, faults, interior processes, plate tectonics, and earth resources. Emphasis is placed on how the geologic environment affects humans and how humans affect the environment. The student will study the processes forming surface landforms and be able to recognize landscapes characteristic of water, ice, and wind erosion. Successful completion of physical geology prepares a student to apply geologic principles to other sciences, understand and appreciate geologic phenomena and avoid geologic hazards. (Together with Geology 2, CAN GEOL 2)

2 PHYSICAL GEOLOGY LABORATORY 1 Unit
Prerequisite: Completion of or concurrent enrollment in Geology 1.
Acceptable for credit: CSU, UC
54 hours laboratory
This course provides "hands-on" experience with the tools and skills discussed in Physical Geology (Geology 1). Lab topics include mineral and rock identification, map and air photograph interpretation and landform identification, and introduction to the study of geologic maps and cross-sections. (Together with Geology 1, CAN GEOL 2)

3 HISTORICAL GEOLOGY 3 Units
Prerequisite: None. (It is recommended this course be preceded by an introductory geology or earth science course.)
Acceptable for credit: CSU, UC
54 hours lecture
This course covers the origin and geologic history of the Earth and the evolution of its plant and animal inhabitants. Plate tectonic theory is used to explain changes in composition and structure of rocks of the Earth's crust from the formation of the Earth to the present. Emphasis is placed on the formation of sedimentary rocks for the purpose of understanding how they and the fossils contained within them record changes in Earth environment and processes. Evolution and extinction are studied to understand how they reflect environmental changes in the earth's ocean, atmosphere, and surface.

4 HISTORICAL GEOLOGY LABORATORY 1 Unit
Prerequisites: Geology 1 or 3 or concurrent enrollment
Acceptable for credit: CSU, UC
54 hours laboratory
Laboratory studies to accompany Geology 3, Historical Geology. Use of sedimentary rocks, fossils, geologic maps, and sections in interpreting ancient environments, tectonic settings, and geologic history. Age relations and correlation of rock and time units. Introduction to fossil identification and biostratigraphy. At least one field trip will be required as an introduction to sedimentary environments and field methods in geology.

5 INTRODUCTION TO OCEANOGRAPHY 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
The course will provide an introduction to the basic principles and practices of oceanography. Topics will be presented in terms of the applications of physics, geology, chemistry, and biology to a study of the world's oceans. Specific topics will include planetary science and earth origin, the geologic timescale, geography and location systems, matter, marine provinces, sediments, seismology, plate tectonics, seawater composition, geochemical distributions, deep ocean circulations, winds and surface circulation, waves, tides, estuarine environment, biological production, nekton, plankton, and benthic organisms.

6 INTRODUCTION TO MINERALOGY 3 Units
Prerequisite: None. (An introductory geology course and an elementary chemistry course would be helpful)
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
The properties, relationships and origins of minerals, crystallography and determinative mineralogy; economic importance of minerals in California and on a world-wide basis.

7 FIELD GEOLOGY 4 Units
Prerequisites: None.
Acceptable for credit: CSU, UC
36 hours lecture, 108 hours laboratory
A study of geology in the field, field techniques of geologic surveying, nature and construction of maps, sections, block diagrams, geologic reports and geologic computations. The course includes field recognition and interpretation of geologic structures, topographic forms, and igneous, metamorphic and sedimentary rocks as well as the correlation of subsurface strata.

8 EARTH SCIENCE 3 Units
Prerequisites: None. (Not open to students who have received credit for Geology 1 or 3.)
Acceptable for credit: CSU, UC - See Counselor
54 hours lecture
This course is an introductory course covering major topics in geology, oceanography, meteorology, astronomy, scientific method, and philosophy of science. This course is designed for non-science majors.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Acceptable Credit</th>
<th>Lecture Hours</th>
<th>Laboratory Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 GEOLOGIC MINING HISTORY OF THE MOTHER LODE</td>
<td>3 Units</td>
<td>None</td>
<td>CSU</td>
<td>54 hours</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>12 GEOLOGY OF CALIFORNIA</td>
<td>3 Units</td>
<td>None</td>
<td>CSU, UC</td>
<td>54 hours</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>18 GEOLOGY OF THE NATIONAL PARKS</td>
<td>3 Units</td>
<td>None</td>
<td>CSU</td>
<td>54 hours</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>24 FIELD STUDIES IN GEOLOGY</td>
<td>1 - 3 Units</td>
<td>Completion of or concurrent enrollment in either Geology 1, 3, 6, 12 or Geography 1</td>
<td>CSU, UC</td>
<td>54 hours</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>49 SPECIAL STUDIES IN GEOLOGY</td>
<td>1 - 3 Units</td>
<td>(See catalog page 21)</td>
<td>CSU, UC</td>
<td>See Counselor</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>59 PALEONTOLOGY: PRINCIPLES AND TECHNIQUES</td>
<td>3 Units</td>
<td>None</td>
<td>CSU, UC</td>
<td>36 hours lecture, 54 hours laboratory</td>
<td>-</td>
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</tr>
</tbody>
</table>
DEGREE
A.A.—Human Services, Gerontology
CODE #1138

REQUIRED PROGRAM
GERON 41 Interviewing, Counseling the Elderly ......................... 3
GERON 42 Techniques of Individual and Group                   Counseling of the Elderly ..................................... 4
HS 14 Introduction to Human Services ...................................... 3
HS 21 Introduction to Psychology of Human Relations ........ 3
HS 35 Introduction to Chemical Dependency .......................... 3
HS 39 Employment Skills in Human Services .......................... 3
HS 41 Techniques of Interviewing and Counseling ............... 3
HS 42 Techniques of Group Counseling .................................. 4
HS 40 Practices in Human Services ...................................... 6
PSYCH 1 General Principles .................................................. 3
TOTAL UNITS REQUIRED ......................................................... 35

Suggested Electives:
English 1A, 14A, 14B; Computer Information Science 11A, 11B,
13A, 13B, 14A, 14B, 15A, 15B; Health Education 1, 10, 11;
Statistics 1.

General Education Graduation Requirements - See page 18.

CERTIFICATE
Human Services, Gerontology
CODE #1138

REQUIRED PROGRAM
GERON 41 Interviewing, Counseling the Elderly ......................... 3
GERON 42 Techniques of Individual and Group Counseling of the Elderly ..................................... 4
HS 14 Introduction to Human Services ...................................... 3
HS 21 Introduction to Psychology of Human Relations ........ 3
HS 35 Introduction to Chemical Dependency .......................... 3
HS 39 Employment Skills in Human Services .......................... 3
HS 41 Techniques of Interviewing and Counseling ............... 3
HS 42 Techniques of Group Counseling .................................. 4
HS 40 Practices in Human Services ...................................... 6
PSYCH 1 General Principles .................................................. 3
TOTAL UNITS REQUIRED ......................................................... 35

This CRC program prepares students for employment as an associate professional with agencies specializing in working with the elderly, such as senior day care, adult protective services, and retirement centers.

Career Options
Peer Support Group Facilitator; Convalescent Hospital Aide, Alcoholism Program Worker;
Family, Welfare, and Health agencies;
Ombudsman Program Workers; County or State Eligibility Worker; Conflict Containment Workers; Senior Day Care Worker; Hospice Worker.

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Highlights
Individual and group counseling training
Tours of Human Services agencies
Interviews with employers
Employment training; including resumes, cover letters, and interviews.

Gerontology
(see also Human Services)
41 INTERVIEWING, COUNSELING  THE ELDERLY
Prerequisite: Psychology 1
Acceptable for credit: CSU
54 hours lecture
Techniques of counseling the elderly with emphasis on rehabilitation using Remotivation-Reality Orientation, Sensitivity Training and Life Review. Individual and group processes as related to the elderly are applied. The course is an integral part of the Gerontology program.

42 TECHNIQUES OF INDIVIDUAL AND GROUP COUNSELING OF THE ELDERLY
Prerequisite: Gerontology 41
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory.
Exploration of the effectiveness of counseling techniques of the elderly within an institutional setting. Non-traditional techniques of counseling and support are investigated. Student involvement with the elderly under supervision is a major function of the course. This course is an integral part of the Gerontology program.
Area of Physical Education & Athletics

Health Education

Red Cross Certification:
- Standard First Aid
- Standard First Aid and Community CPR
- Community CPR
- CPR: BLS for the Professional Rescuer

This CRC program in Health Education is designed to provide students the essential information for the evaluation, protection and maintenance of individual health as well as providing for Red Cross Certification in First Aid and CPR (Cardiopulmonary Resuscitation).

The Health Education curriculum fulfills a portion of the General Education graduation requirement for Living Skills and is transferrable to all four-year colleges and universities.

Health Education

1 HEALTH SCIENCE 3 Units

Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture

The aim of this course is to help people achieve a high level of wellness and prevent disease by assisting them to maximize both their personal lifestyles and their environments. This course will help you to identify the various factors influencing your current and future levels of wellness. Information presented will include, but not be exclusive to: mental health, stress management, nutrition, weight control, fitness, sexuality, addictive substances, and disease.

10 STANDARD FIRST AID 1 Unit

Prerequisite: None.
Acceptable for credit: CSU, UC - See Counselor
18 hours lecture
Lecture and practice in first aid procedures and instructional methods and techniques to meet the requirements for American Red Cross Standard certificate. Recommended for lifeguards, ski patrol, recreation workers, teachers and physical education majors. Students successfully completing course and qualifying tests are issued a Standard Certificate by the American Red Cross.

11 COMMUNITY CPR .5 Unit

(COMPARIONARY RESUSCITATION) - BASIC LIFE SUPPORT

Prerequisite: None.
Acceptable for credit: CSU
9 hours lecture
Cardiopulmonary resuscitation includes information essential for the development of the student’s first aid knowledge, skill, ability, and personal judgement in basic life support cardiopulmonary resuscitation (CPR). May be taken two times for credit.
12 STANDARD FIRST AID & COMMUNITY CPR

<table>
<thead>
<tr>
<th>Prerequisite: None.</th>
<th>Acceptable for credit: CSU, UC - See Counselor</th>
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</thead>
<tbody>
<tr>
<td>36 hours lecture</td>
<td>This course is the official American Red Cross First Aid Course, along with the Community CPR. The American Red Cross Standard First Aid and Community CPR Certificates will be issued upon completion of the course with a grade of &quot;C&quot; or better. May be repeated two times for credit.</td>
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<table>
<thead>
<tr>
<th>14 CPR: BLS FOR THE PROFESSIONAL RESCUER</th>
</tr>
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<tbody>
<tr>
<td>Prerequisite: Health Education 11 or current CPR card</td>
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<tr>
<td>Acceptable for credit: CSU</td>
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<tr>
<td>18 hours lecture</td>
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<tr>
<td>This course is designed to meet the special needs of people who are expected to respond in emergency situations. It represents a new direction in CPR training set by the 1985 National Conference on Standards and Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiac Care of the American Heart Association (AHA) and American Medical Association. This direction distinguishes the training needs of the group the American Red Cross now calls &quot;professional rescuers.&quot; Satisfactory completion of this course (84% or better) results in American Red Cross certification in Basic Life Support for the Professional Rescuer and/or American Heart Association Healthcare Provider. The course may be taken four times for credit.</td>
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<thead>
<tr>
<th>25 CONTEMPORARY PROBLEMS OF STUDENT ATHLETES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite: None</td>
</tr>
<tr>
<td>Acceptable for credit: CSU</td>
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<tr>
<td>18 hours lecture (9 weeks)</td>
</tr>
<tr>
<td>This class addresses the concerns and issues of the student athlete. The course covers the following topics: marketing yourself to the 4-year school; developing your sport and academic resume, developing a recruiting video; NCAA Rules and Regulations; nutrition and weight control; anabolic steroid use, effects of alcohol on athletic performance. Drug testing and effects of other drugs such as marijuana, cocaine and tobacco; academic information and use of CRC support services; prevention and treatment of injuries.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>49 SPECIAL STUDIES IN HEALTH EDUCATION (See catalog p. 21)</th>
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<tbody>
<tr>
<td>Acceptable for credit: CSU</td>
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<tr>
<td>1-3 Units</td>
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</table>

COSUMNES RIVER COLLEGE 2000 - 2001  Health Education 179
Area of Careers and Technology

Health Information Technology

DEGREE
A.A.—Health Information Technology

CERTIFICATES
Health Information Coding Specialist
Health Information Services Clerk
Legal Correspondence Specialist
Medical Insurance Billing Specialist

The CRCHalth Information Technology program is designed to train health information professionals with the knowledge and skills to process, analyze, disseminate and maintain health care information. A career as a health information professional offers a unique opportunity to combine an interest in health information, business, and computer information science. Employment opportunities are available in long-term care, ambulatory care, and acute care facilities; state and federal health agencies; and private industry. Call the Health Careers Information Hotline, 691-7313, for an information packet.

Career Options
Health Information Analyst; Health Information Abstractor; Release of Information; Supervisor, Health Information; Consultant; Data Quality Manager; ICD/CPT Coder; Quality Improvement Coordinator; Medical Staff Coordinator

Employment Opportunities
Possible in the Following Settings
Ambulatory Care
Long-Term Care/Rehabilitation
State and Federal Health Agencies
Professional Review Organizations
Insurance Companies
Educational Settings
Consulting Firms
Mental Health/Chemical Dependency
Acute Care

Some career options may require experience in addition to two years of college study.

Highlights
Training in a field rated as the nation's tenth most employable career
Program accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in cooperation with the Council on Accreditation of the American Health Information Management Association
Preparation for the national R.H.I.T. (Registered Health Information Technician) examination upon graduation with associated degree
Non-paid clinical experience in applying classroom-based knowledge at affiliated health-related agencies
Short-term certificate options for immediate employment opportunities in coding, medical insurance billing, legal and health information clerical support
DEGREE
A.A.—Health Information Technology
CODE #1252

REQUIRED PROGRAM .......................................................... Units
Semester 1 - Fall
AH 54  Medical Language for Health Care Providers .................. 3
BIO 25 Anatomy and Physiology (5) or
BIO 50 Basic Anatomy and Physiology (4) ....................... 4-5
CIS 1 Computer Familiarization ........................................ 1
HIT 52 Alternate Health Information Systems and Settings ........ 2
HIT 62 Health Records Systems in Acute Care Facilities ..... 3
Semester 2 - Spring
AH 63 Human Disease ..................................................... 3
BIO 26 Anatomy and Physiology (5) or
BIO 51 Basic Anatomy and Physiology (4) ....................... 4-5
CIS 12A Electronic Spreadsheets ......................................... 1
CIS 13A Database Management ......................................... 1
HIT 65 Health Statistics .................................................... 2
HIT 66 Computerized Health Information Systems .............. 2
Semester 3 - Fall
AH 64 Basic ICD Coding ................................................... 2
HIT 60 Medical Legal Aspects of Health Information ............ 2
HIT 69 Supervision for the Allied Health Professional .......... 2
HIT 70A Health Information Technology Directed Practice I .... 3
SPEE 9 The Communication Experience .............................. 3

Semester 4 - Spring
HIT 67 Continuous Quality Improvement .............................. 2
HIT 68A Intermediate ICD Coding ....................................... 2
HIT 68B Advanced ICD Coding ......................................... 2
HIT 70B Health Information Technology Directed Practice II .... 3
MA 65B Introduction to Pharmacology ................................ 1

TOTAL UNITS REQUIRED ......................................................... 49.5-51.5

Additional Requirements:
A comprehensive history and physical examination demonstrating good physical and mental health must be completed before students can participate in directed practice activities. Directed practice classes require a commitment of 8 hours per week during daytime hours. All other HIT courses are offered a combination of evenings and Saturdays. Biology 25/26 are recommended for students interested in transfer or a career as a coder.

Suggested Electives:
Any of the following courses will greatly benefit the graduate in Health Information Technology: Accounting 1A; Business 8, 43, 50; CIS 12B, 13B, 14A, 14B, 16A, 16b.

Additional General Education courses are required to meet graduation requirements. - See page 18.

CERTIFICATE
Health Information Coding Specialist
CODE #1372

REQUIRED PROGRAM .......................................................... Units
Semester 1 - Spring
AH 54 Medical Language for Health Care Providers .................. 3
CIS 50 Basic Anatomy & Physiology .................................... 4
CIS 1 Computer Familiarization ......................................... 1
Semester 2 - Fall
AH 63 Human Disease ..................................................... 3
AH 64 Basic ICD Coding ................................................... 2
BIO 51 Basic Anatomy & Physiology .................................. 4
HIT 52 Alternate Health Information Systems & Settings ....... 2
HIT 62 Health Record Systems in Acute Care Facilities ........ 3

Semester 3 - Spring
HIT 68A Intermediate ICD Coding ....................................... 2
HIT 68B Advanced ICD Coding ......................................... 2
HIT 70C Directed Practice: Health Information Coding Specialist 1

TOTAL UNITS REQUIRED ......................................................... 28.5

CERTIFICATE
Health Information Services Clerk
CODE #1373

REQUIRED PROGRAM .......................................................... Units
Semester 1 - Fall
AH 54 Medical Language for Health Care Providers .................. 3
CIS 1 Computer Familiarization ......................................... 1
HIT 62 Health Record Systems in Acute Care Facilities ........ 3

Semester 2 - Spring
BUS 43 Keyboard Speed and Accuracy Building ..................... 1.5
HIT 66 Computerized Health Information Systems ................. 2
HIT 70E Directed Practice: Health Information Services Clerk .... 1

TOTAL UNITS REQUIRED ......................................................... 11.5

CERTIFICATE
Legal Correspondence Specialist
CODE #1374

REQUIRED PROGRAM .......................................................... Units
Semester 1 - Fall
HIT 52 Alternate Health Information Systems and Settings ....... 2
HIT 62 Health Record Systems in Acute Care Settings .......... 3

Semester 2 - Spring
AH 54 Medical Language for Health Care Providers .................. 3
CIS 1 Computer Familiarization ......................................... 1
BUS 50 Business English .................................................. 3

Semester 3 - Fall
HIT 60 Medical Legal Aspects of Health Information ............... 2
HIT 70F Directed Practice ................................................... 1

TOTAL UNITS REQUIRED ......................................................... 15
CERTIFICATE

Medical Insurance Billing Specialist

CODE 1375

REQUIRED PROGRAM

Semester 1 - Spring
AH 54 Medical Language for Health-Care Providers ...............3
BIO 50/51 Basic Anatomy and Physiology ..........................4
BUS 43 Keyboard Speed and Accuracy Building ...................1.5
BUS 60 Business Mathematics ......................................3

Semester 2 - Fall
AH 63 Human Disease .................................................3
BIO 50/51 Basic Anatomy and Physiology ..........................4
HIT 62 Health Record Systems in Acute Care Facilities ..........3
MA 67 Medical Insurance Procedures ................................2

Semester 3 - Spring
AH 64 Basic ICD Coding ................................................2
CIS 1 Computer Familiarization ......................................1
HIT 70D Directed Practice: Medical Insurance Billing Specialist ..............................................1

TOTAL UNITS REQUIRED .................................................29

Health Information Technology

49 SPECIAL STUDIES IN HEALTH INFORMATION TECHNOLOGY
(See catalog p. 21)

52 ALTERNATE HEALTH INFORMATION SYSTEMS AND SETTINGS
Prerequisite: None.
36 hours lecture
This is an introductory course designed to acquaint the health information student in non-acute care settings with emphasis on ambulatory care, managed care, government facilities, mental health, long-term care, home health, and hospice care. Students will be introduced to the following concepts: documentation requirements, accrediting and licensing standards, reimbursement methodology, quality improvement, utilization management, medical-legal issues, current trends and employment opportunities.

60 MEDICAL LEGAL ASPECTS OF HEALTH INFORMATION
Prerequisite: Health Information Technology 62.
36 hours lecture
This course explores the legal basis for the control, use and release of health information. The concept of consent for treatment and other procedures, as well as medical-moral issues (abortion, euthanasia, sterilization, artificial insemination, and surrogacy) will be discussed. Federal and state laws and regulations governing the handling of special health information (psychiatric, substance abuse and HIV/AIDS) will be reviewed. Emphasis will be placed on procedures used in responding to requests for health information. The concept of risk management will also be discussed.

61 CURRENT PROCEDURAL TERMINOLOGY (CPT) CODING
Prerequisite: Completion of Allied Health 63.
18 hours lecture, 27 hours laboratory
The principles and mechanics of coding procedures according to current procedural terminology and its relationship to the Health Care Financing Administration Common Procedure Coding System are taught in this course.

62 HEALTH RECORD SYSTEMS IN ACUTE CARE FACILITIES
Prerequisite: None.
45 hours lecture, 27 hours laboratory
This course is an introduction to health records systems in the acute care setting focusing on procedures for completion, maintenance, and preservation of health information. The relationship between health information management and the health care delivery system will also be discussed. Students will become familiar with the concept of accreditation, certification, and licensing of health care facilities with emphasis on the accreditation survey process. Automated medical record functions will be introduced including optical disk storage systems, electronic medical records, computerized master patient index, and incomplete record and chart tracking systems.

65 HEALTH STATISTICS
Prerequisite: Health Information Technology 62 with a grade of "C" or better.
27 hours lecture, 27 hours laboratory
This course will introduce the principles of health care statistics including the process of abstracting data from medical records, the preparation of administrative and medical reports, the use of statistics in medical research, the applications of automated systems, the interpretation of reports and the registration of vital statistics. Automated abstracting and vital statistics systems, as well as the use of spreadsheet packages for data display will be introduced.

66 COMPUTERIZED HEALTH INFORMATION SYSTEMS
Prerequisite: Computer Information Science 1.
18 hours lecture, 54 hours laboratory
This course will provide practical experience in the use of software programs commonly used in health information, including master patient index, chart tracking, abstracting, encoders and groupers, release of information, birth registration, and incomplete record management systems. Emphasis will also be placed on the use of spreadsheet and database programs in the manipulation and use of health information.
67 CONTINUOUS QUALITY IMPROVEMENT 2 Units
Prerequisite: Health Information Technology 65 with a grade of "C" or better.
36 hours lecture
This course will provide an overview of Continuous Quality Improvement inherent in the health care industry. Students will explore the history and development of Continuous Quality Improvement (CQI) efforts in health care. Students will also discuss quality and process improvement techniques applicable to health care. The roles and responsibilities of individuals involved in medical staff peer review, utilization review and risk management will be presented to students. The concept of an organized medical staff will be discussed, as well as the role of the medical staff office. The variety of computer applications available for CQI and Medical Staff Organization (MSO) functions will also be presented to students.

68A INTERMEDIATE ICD CODING 2 Units
Prerequisite: Allied Health 64.
27 hours lecture, 27 hours laboratory
This course will address more complex issues related to ICD coding. Class lectures and labs will focus on using actual medical records, and learning and applying higher level coding skills. The Prospective Payment System and Diagnosis Related Groups (DRGs) will be introduced.

68B ADVANCED ICD CODING 2 Units
Prerequisite: Health Information Technology 68A.
27 hours lecture, 27 hours laboratory
This course focuses on the advanced concepts in ICD coding, Diagnosis Related Groups (DRGs) and coding for prospective payment. Computerized encoders and groupers will be emphasized. This class is one of the core courses in the Health Information Technology Program curriculum.

69 SUPERVISION FOR THE ALLIED HEALTH PROFESSIONAL 2 Units
Corequisite: Health Information Technology 70A.
36 hours lecture
This core course is designed to prepare allied health professionals for supervisory positions. Basic management principles as well as inservice education and dealing with difficult behavior in the workplace will be included. Emphasis will be placed on developing organizational charts, policies and procedures, job descriptions, and inservice education materials for the health care environment. In addition, students will be exposed to numerous health care-related case studies which deal with communication, conflict resolution, motivation, and interviewing.

70A HEALTH INFORMATION TECHNOLOGY DIRECTED PRACTICE I 3 Units
Prerequisite: HIT 62, HIT 65 and satisfactory completion of a health status examination.
Pre or Corequisite: HIT 69.
6 hours lecture, 144 hours laboratory
Students will experience supervised clinical practice in a health related agency. Students will gain practical experience in data content and structure; collection, storage, and retrieval of health information; analysis, interpretation, and presentation of health data; information technology and systems; various registries; and ancillary departments. Students shall have the status of learner and shall not be considered agency employees, nor shall they replace agency staff. Directed practice is conducted as non-paid laboratory experience and the student is required to attend the facility eight hours per week during daytime hours.

70B HEALTH INFORMATION TECHNOLOGY DIRECTED PRACTICE II 3 Units
Prerequisite: Health Information Technology 70A.
6 hours lecture, 144 hours laboratory
Students will experience supervised clinical practice in a health-related agency. Students will gain hands-on experience in data integrity; management; supervision; legal and regulatory issues; release of information; and coding/classification systems. Students will have the status of learner and shall not be considered agency employees, nor shall they replace agency staff. Directed practice is conducted as non-paid laboratory experience and the student is required to attend the facility eight hours per week during daytime hours.

70C DIRECTED PRACTICE 1 Unit
HEALTH INFORMATION CODING SPECIALIST
Prerequisite: Health Information Technology 68B.
54 hours laboratory
This course is a supervised clinical experience in performing coding and abstracting. Students must be available during regular business hours. Students shall have the status of learner and shall not be considered agency employees, nor shall they replace staff. Directed practice is conducted as non-paid laboratory experience.

70D DIRECTED PRACTICE 1 Unit
MEDICAL INSURANCE BILLING SPECIALIST
Prerequisite: Health Information Technology 67.
54 hours laboratory
This course includes supervised clinical practice in medical insurance billing and reimbursement. Students must be available during regular business hours. Students shall have the status of learner and shall not be considered agency employees, nor shall they replace staff. Directed practice is conducted as non-paid laboratory experience.

70E DIRECTED PRACTICE 1 Unit
HEALTH INFORMATION SERVICES CLERK
Prerequisite: Health Information Technology 62.
54 hours laboratory
This course is a supervised clinical experience in performing clerical functions in a health information management setting. Students must be available during regular business hours. Students shall have the status of learner and shall not be considered agency employees, nor shall they replace staff. Directed practice is conducted as non-paid laboratory experience.

70F DIRECTED PRACTICE 1 Unit
LEGAL CORRESPONDENCE SPECIALIST
Prerequisite: Health Information Technology 52.
54 hours laboratory
Students are assigned to a health-related agency for supervised training in release of information. Students are required to complete directed practice during regular business hours. Students shall have the status of learner and shall not be considered agency employees, nor shall they replace agency staff. Directed practice is conducted as non-paid, laboratory experience.
Area of Humanities & Social Science

**History**

This CRC program offers a study of history contributes to cultural literacy and develops critical thinking and other useful skills while helping students understand today and plan for tomorrow.

### Career Options
- Administrator; Archivist; Business Consultant; Foreign Service; Government Service; Historian; Journalist; Librarian, Museum Curator; Pre-Law/Lawyer; Researcher/Research Analyst; State Park Historian; Teacher; Writer

Some career options may require more than two years of college study.

### Highlights
- Overview of Western Civilization and American History, African-American History, Women in American History
- Study Abroad in such locations as London, Paris, Florence and Salamanca
- Faculty includes widely traveled scholars, authors and active historians

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**History**

2 **CRITICAL REASONING**

AND COMPOSITION

3 Units

Prerequisite: English 1A with a grade of “C” or better.

Acceptable for credit: CSU, UC

54 hours lecture

This course will study critical thinking techniques found in historical methodology and apply those techniques to written historical arguments and interpretations. The course will employ as a principal subject for critical analysis the experiences of Native Americans, African-Americans, Hispanics, and Asian-Americans in the United States, although other topics will be discussed from time to time. Emphasis will be placed upon extensive and progressively more difficult written assignments.

4 **HISTORY OF WESTERN CIVILIZATION (TO 1660)**

3 Units

Prerequisite: None.

Acceptable for credit: CSU, UC

54 hours lecture

This course investigates the manner in which the institutions that comprise our “Western Civilization” developed, from pre-historic times to 1660. It constitutes a survey of the various “strands” that make up that civilization: political, economic, social and cultural.

(CAN HIST 2) (with HIST 5, CAN HIST SEQ A)
5  HISTORY OF WESTERN CIVILIZATION (SINCE 1660)  3 Units
Prerequisite: None.
Acceptable for credit:  CSU, UC
54 hours lecture
This course reviews the course of Western Civilization from 1660 to the present, concentrating on the history of Western Europe. It provides a general account of those forces and events that have shaped developments in the Twentieth Century. (CAN HIST 4) (with HIST 4, CAN HIST SEQ A)

7  HISTORY OF AFRICAN CIVILIZATIONS  3 Units
Prerequisite: None.
Acceptable for credit:  CSU, UC
54 hours lecture
This course is an introductory survey of the history of Africa from earliest times to the present. Major topics will include origins of humanity and society, civilizations of the Nile Valley, the peopling of Sub-Saharan Africa, African societies to 1500 A.D., precolonial Saharan and Sub-Saharan Africa, colonial Africa and the emergence of modern state in Africa.

8  HISTORY OF THE AMERICAS  3 Units
Prerequisite: None.
Acceptable for credit:  CSU, UC
54 hours lecture
This course is a general historical survey of North, Central, and South America from the earliest civilizations through the 19th century wars of independence. The focus is on the roles played by political, economic, cultural, and religious forces in shaping the western hemisphere.

9  HISTORY OF THE AMERICAS  3 Units
Prerequisite: None.
Acceptable for credit:  CSU, UC
54 hours lecture
This course is a general historical survey of North, Central, and South America from the wars of independence to the present day. Special emphasis is placed on a review of the North American colonies, the road to revolution, independence from England, and the constitutional period as well as subsequent Latin American - United States relations. This course satisfies the state requirements in United States history.

10  HISTORY OF MEXICO  3 Units
Prerequisite: None.
Acceptable for credit:  CSU, UC
54 hours lecture
This course is a general historical survey of Mexico from the earliest civilizations to the contemporary period. Emphasis is placed on the Spanish conquest, the War of Independence, the roles played by various leaders of Mexico, the Revolution of 1910, Reconstruction, and Mexico today.

11  A HISTORY OF WORLD CIVILIZATIONS TO 1500  3 Units
Prerequisite: None.
Acceptable for credit:  CSU, UC
54 hours lecture
This course is a survey of world civilizations from antiquity to 1500, with particular emphasis on the dynamic interaction and comparison of peoples and cultures. The focus is on the role played by social, political, economic, cultural and religious forces in shaping the major world civilizations and the legacy of these civilizations for subsequent civilizations and our world today.

12  A HISTORY OF WORLD CIVILIZATIONS, 1500 TO PRESENT  3 Units
Prerequisite: None.
Acceptable for credit:  CSU, UC
54 hours lecture
This course is a survey of the development of the major civilizations of the world from the 16th century to the present, with particular emphasis on the dynamic interaction of peoples and cultures. The focus is on the role played by social, political, economic, cultural and religious forces in shaping the major world civilizations and the legacy of these civilizations and our world today.

14  HISTORY OF THE UNITED STATES: AFRICAN-AMERICAN EMPHASIS  3 Units
Prerequisite: None.
Acceptable for credit:  CSU, UC—See Counselor
54 hours lecture
U.S. History from the founding of Jamestown in 1607, through the Civil War. The course begins with a brief overview of the Black American's African heritage. It continues with the role played by African-American women as well as men in the growth and development of the nation. The U.S. Constitution and the establishment of American government institutions are also covered.

15  HISTORY OF THE UNITED STATES: AFRICAN-AMERICAN EMPHASIS  3 Units
Prerequisite: None.
Acceptable for credit:  CSU, UC—See Counselor
54 hours lecture
U.S. History from 1865 to the present, including coverage of the state and local government, with an increased emphasis on the role of black women as well as men, spelling out their specific contributions in the growth and development of the nation. It includes coverage of California state and local government.
17 HISTORY OF THE UNITED STATES 3 Units
(TO 1865)
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture
History of the United States (to 1865) portrays the growth of America, its institutions and ideals, from their beginning through the Civil War period, examining the decisions and developments that shaped our national heritage. The U.S. Constitution and the establishment of American government institutions are also covered. (CAN HIST 8)

18 HISTORY OF THE UNITED STATES 3 Units
(1865-1945)
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
History of the United States portrays America's development from the period of Reconstruction following the Civil War in 1865 through the end of the Second World War in 1945, examining the significant ideas, decisions, forces, institutions, individuals, events, and processes that affected continuity and change during this time. Includes coverage of California state and local government.

21 RECENT UNITED STATES HISTORY 3 Units
(SINCE 1945)
Prerequisite: None.
Advisory: Satisfactory completion of a college-level history course is recommended.
Acceptable for credit: CSU, UC
54 hours lecture
Recent U.S. History reviews those events that constitute our country's history from 1945 to the present, ensues against the background of a "world setting." While the emphasis tends to be on political developments, the course also covers broad economic, social, and cultural patterns. It includes coverage of California state and local government.

28 SURVEY OF CALIFORNIA HISTORY:
3 Units
A MULTICULTURAL PERSPECTIVE
Prerequisite: None
Acceptable for credit: CSU, UC
54 hours lecture
This course is a general historical survey of the social, political and economic developments of California from its origin to the present time. Emphasis is placed on the state's multicultural heritage and on significant local history.

35 WOMEN IN AMERICAN HISTORY 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
Survey history of the United States from 1607 to the present, emphasizing the economic and social conditions that gave women more actual respect and some public power. Course includes the roles of women in Native American tribes, the English heritage of the colonists, the contributions of women in creating new homes and farms, and the role of women in times of war. Emphasis on the role of women in the three major social issues of the 19th century: labor, abolition, and women's rights. Includes present-day issues and the legacy of how women in the past dealt with similar issues.

46 TEACHER AIDE 1-4 Units
Prerequisite: A grade of "B" or better in the course for which the student is going to be a teacher aide.
Acceptable for credit: CSU
9 hours lecture, 27 hours laboratory
This course is designed for the student who wants to develop an in-depth understanding of the various aspects of history and historiography and to learn to work with individual students and with small groups. This course may be taken two times for credit for a maximum of 6 units.

49 SPECIAL STUDIES 1-3 Units
IN HISTORY
(See catalog page 21)
Acceptable for credit: CSU, UC — See Counselor
Honors

A course of study for academically accomplished students

Prerequisite: Admission to Honors Program
Acceptable for credit: CSU, UC — See Counselor

For more information, see page 20-21 of the college catalog.

Designed specifically for academically accomplished students, or those with the potential for high academic achievement. CRC's Honors program provides opportunities for intellectual growth beyond those generally found in most undergraduate programs.

Honors courses are special intensive courses in which students will confront and attempt to resolve difficult questions that arise in a careful study of the issues found in the discipline(s).

Honors students are expected to research aspects of these questions and present their findings to the class in written form for seminar discussion. Field trips to attend events or to do research may be an integral part of the Honors course experience. Students who successfully complete units from Honors courses may be able to count these units as part of the Transfer Breadth Requirements (see page 24).

Finally, students who successfully complete a minimum of three units in at least two different Honors courses with an overall GPA of 3.0 will be awarded the title Cosumnes River College Honors Program Graduate. This designation will be placed on their permanent transcripts.

During the 1998-99 academic year, Cosumnes River College approved changes to the framework of the Honors program allowing for the development of individual Honors courses across the curriculum. The ongoing development of these one to three unit courses will allow students greater access to study which is beyond that set forth in the normal curriculum.

20H HONORS SEMINAR: 3 Units
POLITICAL CAMPAIGN COMMUNICATION

Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture

What do pundits, politicians and the public have in common? The ability to impact political campaign communication. This seminar-style course will introduce students to the effects of political campaign communication on public opinion and election results. Using timely data, students will evaluate news media, debate presidential debates, and analyze campaign messages using qualitative and quantitative approaches. This course is intended for the honor student interested in learning about political communication, rhetorical criticism, and techniques for writing for academic audiences. Permission of instructor needed for enrollment in this honors course.
21H HONORS SEMINAR: NATURE AND CULTURE 3 Units

Prerequisite: None. (offered as Geography 21H or Humanities 21H)
Acceptable for credit: CSU
54 hours lecture

This seminar examines multicultural interpretations and use of the environment from the Native American era to modern day within geographic regions as case studies. Interdisciplinary in approach, this course draws upon the natural sciences, humanities, and social sciences to explain how the physical environment has been interpreted, utilized, and impacted differently by various cultures through time. Two field trips are required as part of this seminar. This course is intended for academically-accomplished students, regardless of major. Permission of instructor needed for enrollment in this honors course.

47A HONORS SEMINARS IN HUMANITIES 1 Unit

Honors students will study the movements, trends and philosophies found in the humanities.

47B HONORS SEMINARS IN SOCIAL SCIENCE 1 Unit

Honors students will study the movements, trends and philosophies found in the social and behavioral sciences.

47C HONORS SEMINARS IN SCIENCE 1 Unit

Honors students will study advanced topics from the area of science and will be expected to do independent investigation into the subject of the particular seminar.

47D HONORS SEMINARS IN BUSINESS 1 Unit

Honors students will confront advanced topics in the area of Business and will be expected to do work that will both inform them about the subject and increase powers of analysis and critical thinking/critical writing.
Area of Careers and Technology

Horticulture

DEGREES
A.S.—Horticulture, Landscape Design
A.S.—Horticulture, Landscape Industry

CERTIFICATES
Landscape Design
Landscape Industry
Landscape Maintenance
Nursery Operations
Applications of Desktop G.I.S. (Plant Science emphasis)
(see page 259)

These CRC programs offer students the opportunity to blend the disciplines of horticulture, construction, drafting and business into a unique professional opportunity. A wide variety of employment opportunities are available in the Sacramento area for students completing the Associate Degree or one of the certificate programs. The continued growth of the area and the need for specialized training are creating a demand for qualified individuals.

The Horticulture Program offers a variety of options for interested students at both Cosumnes River College and American River College. General education as well as horticulture courses may be taken at either college. American River College offers a more extensive list of courses in Horticulture and related subjects; students have the option of transferring to American River College for courses beyond those offered at CRC toward completion of a degree program.

A student majoring in a degree option program should, upon completion, be able to meet the standards imposed by local industries for proper placement within the selected job area of the student's choice. It should, however, be noted that each employment situation may require that additional standards be met. Environmental Design degree options are available in architecture, construction, and interior design and will be granted by Cosumnes River College.

Career Options
- Nursery Management and Operations;
- Park Maintenance; Landscape Design,
- Contracting & Maintenance; Fertilizer &
- Insecticide Application; Research;
- Retail/Wholesale; Estimator; Consultant;
- Government Agency employee

Highlights
- Hands-on experience in greenhouse operations
- Field trips for appreciation & evaluative study
- Practical design opportunities
A.S.—Horticulture, Landscape Industry
CODE #1146

REQUIRED PROGRAM.....................................................Units
HORT 1 Introduction to Horticulture................................3
HORT 2 Soils and Plant Nutrition or
PLT SCI 2 Soils and Plant Nutrition ....................................3
HORT 51 Plant Materials I ................................................3
HORT 52 Plant Materials II ..............................................3
DRAFT 51 Basic Technical Drafting or
DRAFT 66 Introductory Computer-Aided Design Drafting .... 2-3
HORT 86 Landscape Design ..............................................3
HORT 81 Landscape Maintenance ......................................3
PLT SCI 73 Landscape Irrigation ........................................3
PLT SCI 83 Plant Disease and Pest Control .........................3
HORT 75 Landscape Construction .....................................3
HORT 98 Work Experience ................................................3
TOTAL UNITS REQUIRED .................................................32-33

Suggested Electives:
Architecture 1, 3, 12; Building Inspection Technology 57;
Construction Management Technology 50, 51, 52

General Education Graduation Requirements - See page18.

A.S.—Horticulture, Landscape Design
CODE #1113

REQUIRED PROGRAM.....................................................Units
HORT 1 Intro to Horticulture........................................3
HORT 2 Soils and Plant Nutrition ........................................3
HORT 51 Plant Materials I .............................................3
HORT 52 Plant Materials II ............................................3
HORT 55 Plant Diseases and Pests or
PLT SCI 83 Plant Disease and Pest Control .........................3
HORT 81 Landscape Maintenance ...................................3
HORT 86 Landscape Design .............................................3
DRAFT 51 Basic Technical Drafting ..................................3
ARCH 7 Intro to Landscape Design ..................................3
CMT 59 Landscape Installation & Maintenance ....................3
PLT SCI 73 Landscape Irrigation .....................................3
DRAFT 98 Work Experience ............................................4
TOTAL UNITS REQUIRED ................................................28

Suggested Electives:
Construction Management Technology 50; Photography 40.

CERTIFICATE
Landscape Industry
CODE #1114

REQUIRED PROGRAM.....................................................Units
HORT 1 Introduction to Horticulture................................3
HORT 2 Soils and Plant Nutrition ....................................3
HORT 51 Plant Materials I .............................................3
HORT 52 Plant Materials II ............................................3
HORT 55 Plant Diseases and Pests or
PLT SCI 83 Plant Disease and Pest Control .........................3
HORT 81 Landscape Maintenance ...................................3
AMT 67 Small Engine Repair ........................................3
TOTAL UNITS REQUIRED .................................................21

Suggested Electives:
Construction Management Technology 51
## DEGREE
### A.S.—Horticulture, Nursery Industry
**CODE #1147**

<table>
<thead>
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<th>REQUIRED PROGRAM</th>
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<tr>
<td>HORT 1 Intro to Horticulture</td>
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<tr>
<td>HORT 2 Soils &amp; Plant Nutrition</td>
<td>3</td>
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<tr>
<td>HORT 51 Plant Materials I</td>
<td>3</td>
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<tr>
<td>HORT 52 Plant Materials II</td>
<td>3</td>
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<tr>
<td>HORT 55 Plant Diseases and Pests</td>
<td>3</td>
</tr>
<tr>
<td>HORT 70 Plant Propagation</td>
<td>3</td>
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<tr>
<td>HORT 86 Landscape Design</td>
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<tr>
<td>HORT 98 Cooperative Work Experience</td>
<td>2-4</td>
</tr>
</tbody>
</table>

Offered at American River College

**MATH 61 Math for Forestry & Horticulture** | 3 |

**HORT 60 Nursery Practices** | 3 |

**HORT 76 Landscape Graphics** | 3 |

**HORT 79 Pest Control Licensing for Certification** | 2 |

TOTAL UNITS REQUIRED | 34-36 |

Suggested Electives:
- Accounting 60
- Art 30A
- Biology 10, 14, 17
- Business 60
- Computer Information Science 3
- English 13
- Forestry 41
- Marketing 22, 26

General Education Graduation Requirements - See page 18.

## CERTIFICATE
### Nursery Operations
**CODE #1115**

<table>
<thead>
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<th>REQUIRED PROGRAM</th>
<th>Units</th>
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<tbody>
<tr>
<td>HORT 1 Introduction to Horticulture</td>
<td>3</td>
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<tr>
<td>HORT 2 Soils and Plant Nutrition</td>
<td>3</td>
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<td>HORT 51 Plant Materials I</td>
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<td>HORT 52 Plant Materials II</td>
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<td>HORT 55 Plant Diseases and Pests</td>
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<td>PLT SCI 83 Plant Disease and Pest Control</td>
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<tr>
<td>HORT 70 Plant Propagation</td>
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<td>PLT SCI 54 Nursery Practice and Management</td>
<td>3</td>
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</tbody>
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TOTAL UNITS REQUIRED | 21 |

Suggested Elective:
- Plant Science 74 (Weeds and Weed Control)

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### Horticulture

1. **INTRODUCTION TO HORTICULTURE** | 3 Units |
   - **Prerequisite:** None.
   - **Acceptable for credit:** CSU
   - **54 hours lecture**
   - Survey of principles and practices of horticulture designed to improve knowledge of the home gardener as well as those seeking a career. Basic plant structure and function, general knowledge of plant usage, landscape planning and maintenance.

2. **SOILS AND PLANT NUTRITION** | 3 Units |
   - **Prerequisite:** None. (Not open to students who have received credit for Plant Science 2)
   - **Acceptable for credit:** CSU
   - **36 hours lecture, 54 hours laboratory**
   - This course provides a basic knowledge of the physical, chemical, and biological properties of soils and their characteristics. The course topics include: fundamental soil properties, soil and plant relationships, principles of soil formation, fertilizers and soil management, salinity, pH, erosion management, and non-agricultural uses.

49. **SPECIAL STUDIES IN HORTICULTURE** | 1 - 3 Units |
   - (see catalog p. 21)

51. **PLANT MATERIALS I** | 3 Units |
   - **Prerequisite:** None
   - **Advisory:** Completion of or concurrent enrollment in Horticulture 1
   - **Acceptable for credit:** CSU, UC—See Counselor
   - **54 hours lecture, 18 hours laboratory**
   - Identification, habit of growth, cultural requirements and uses of ornamental woody and herbaceous plants used in the California landscape. Emphasis will be concentrated on those plants best seen in the fall and winter months and frequently used in the nursery and landscape trade.

52. **PLANT MATERIALS II** | 3 Units |
   - **Prerequisite:** None
   - **Advisory:** Completion of or concurrent enrollment in Horticulture 1
   - **Acceptable for credit:** CSU, UC—See Counselor
   - **54 hours lecture, 18 hours laboratory**
   - Identification, habits of growth, cultural requirements and uses of ornamental woody and herbaceous plants used in the California landscape. Emphasis will be concentrated on those plants best seen in the spring and summer months and frequently used in the nursery and landscape trade.

55. **PLANT DISEASES AND PESTS** | 3 Units |
   - **Prerequisite:** None
   - **Advisory:** Completion of or concurrent enrollment in Horticulture 1
   - **54 hours lecture, 18 hours laboratory**
   - Local plant diseases and pests including weed problems, with ability to recognize symptoms and causes, to learn life cycles, host and habitat relationships and methods of control.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Acceptable for Credit</th>
<th>Lecture Hours</th>
<th>Laboratory Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>57A</td>
<td>LANDSCAPE PRACTICES: EQUIPMENT &amp; SAFETY</td>
<td>2</td>
<td>None</td>
<td>CSU</td>
<td>18</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>This course is a study of the large and small equipment used in nursery and landscape operations, including discussion of maintenance, record-keeping, and safety.</td>
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<tr>
<td>57B</td>
<td>LANDSCAPE PRACTICES: PESTICIDE QUALIFIED APPLICATOR'S CERTIFICATE</td>
<td>2</td>
<td>None</td>
<td>CSU</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Laws, regulations, and safety concerns for pesticide applicators preparing to obtain (QAC) Qualified Applicator’s Certificate or (QAL) Qualified Applicator’s License. Environmental concerns regarding groundwater and other exposures will be discussed.</td>
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</tr>
<tr>
<td>70</td>
<td>PLANT PROPAGATION</td>
<td>3</td>
<td>None</td>
<td>CSU</td>
<td>36</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>This course covers the fundamental principles involved in propagating plants, including identification of facilities, equipment and techniques utilized in plant production.</td>
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<tr>
<td>75</td>
<td>LANDSCAPE CONSTRUCTION</td>
<td>3</td>
<td>Horticulture 1</td>
<td>CSU</td>
<td>36</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>This is a course designed to develop skill and knowledge in carpentry, masonry, concrete, irrigation, plan reading, estimating, and bidding in the landscape industry.</td>
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<tr>
<td>81</td>
<td>LANDSCAPE MAINTENANCE</td>
<td>3</td>
<td>Horticulture 1</td>
<td>CSU</td>
<td>36</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>This is a course in landscape maintenance of residential and commercial landscapes, parks, highways, and public buildings. It will include the development of skills including planting, pruning, watering, fertilizing, pest control, and power equipment operation and maintenance.</td>
<td></td>
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</tr>
<tr>
<td>86</td>
<td>LANDSCAPE DESIGN</td>
<td>3</td>
<td>None</td>
<td>CSU</td>
<td>36</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>This course includes the basic principles and elements of landscape design related to landscaping, including the problem solving process, design theory and composition, functional and design uses of landscape materials, and client and maintenance criteria.</td>
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</tr>
<tr>
<td>98</td>
<td>WORK EXPERIENCE IN HORTICULTURE</td>
<td>1-4</td>
<td>None</td>
<td>CSU</td>
<td>(See catalog p. 22)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>See AMERICAN RIVER COLLEGE CATALOG for Horticulture 60, 76, 78, 79, and MATHEMATICS 61.</td>
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</tr>
</tbody>
</table>
Area of Counseling & Student Services

Human/Career Development

CR Human/Career Development courses are designed to assist students with recognizing their full potential through developing self-awareness, educational management and lifelong independent career planning skills. Instruction includes obtaining skills necessary to succeed in college and make positive and productive work/life decisions.

- Courses scheduled in short-term segments
- Career exploration and research to assist with career planning and decision making

Highlights

Understanding of how global changes in the workplace impact career change and lifelong transition

Obtain knowledge and skills needed to succeed in life-long planning

Tutor Training

Human/Career Development

2 COLLEGE SUCCESS 3 Units

Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
This intensive course is designed to assist students to obtain the skills and knowledge necessary to reach their educational objectives. Topics to be covered include: motivation and discipline, memory development, time management, communication skills, career planning, study skills and techniques, question-asking skills and personal issues that face many college students. It is recommended for new students and others who can benefit. The course may be offered for specific populations.

4A CAREER RE-ALIGNMENT 1 Unit

Prerequisite: None.
Advisory: HCD 2 or HCD 51C
Acceptable for credit: CSU
18 hours lecture
This is a course in advanced career planning for students who are re-careering, re-engineering, or are in career transition. Building on the concepts of career exploration studied in HCD 2 and HCD 51, students will survey and analyze labor market trends and transition situations and establish successful strategies for conducting job searches in a rapidly evolving employment scene. Students will learn the concept of career resiliency.

4B CAREER RE-ALIGNMENT 1 Unit

Prerequisite: None.
Advisory: HCD 2 or HCD 51C
Acceptable for credit: CSU
18 hours lecture
This course is a continuation of advanced career planning for students who are re-careering, re-engineering, or are in career transition. Students will build on the goal setting of HCD 4A and will learn to apply the career planning process to their own careers and how to cope with workforce transition and change. Students will formulate an “Individual Career Plan.”

5 JOB SEARCH PORTFOLIO DEVELOPMENT 1 Unit

Prerequisite: None.
Acceptable for credit: CSU
18 hours lecture
This course is designed to assist students to develop successful job search strategies. Students in this course will develop a job search/career portfolio. This will include formulating job task samples, resume and cover letter construction, letters of recommendation, and employment applications. Exposure to competitive techniques will include individual interviews on video tape.
6  WORK/LIFE MANAGEMENT 2 Units
Prerequisite: None.
Advisory: HCD 2
Acceptable for credit: CSU
36 hours lecture
This course explores planning for personal work/life management. Includes training in life problem-solving with relationship to personal, educational, and workplace productivity. Topics include exploration of one's own values, interests and abilities; stress reduction, wellness, and leisure; building family and social support; and educational and career management. The course will provide activities which will assist students with decision-making, goal setting, and learning to use tools for dealing with change.

8  WORKPLACE TRANSITIONS SEMINAR 1 Unit
Prerequisite: None.
Advisory: HCD 2, 51C, and 5
Acceptable for credit: CSU
18 hours lecture
This course is offered to students nearing the completion of their academic programs who are actively engaged in a graduate placement search. This course takes a group-interaction approach and will explore the school-to-career transition and build on individual potential for successful career entrance and change. Job search techniques, portfolio enhancement, and labor market scanning will assist students with the necessary budding tools for the transition from school to work.

9  MANAGING YOUR INTERNSHIP .5 Unit
Prerequisite: None
Advisory: HCD 5
Acceptable for credit: CSU
9 hours lecture
The course is designed to provide students with effective internship development skills that will assist in obtaining and keeping an internship in the student’s major area. Course content will include understanding the application of education to the workforce, the responsibilities of an internship, construction of an internship, evaluating an internship site, marketing skills and maximizing the internship experience.

43  INTRODUCTION TO TUTOR TRAINING 1 Unit
(Formerly Human Services 43, Introduction to Tutor Training)
Prerequisite: Completion, with grade of “A” or “B”, of the course or courses for which the student will be tutoring, or recommendation of faculty member.
Acceptable for credit: CSU
18 hours lecture
Course is designed for students who intend to be tutors at CRC. Content deals with the nature of and purpose behind CRC’s tutorial program, its procedures, operations, labs, finances, and the development of tutoring skills. This course is graded on a credit/no credit basis.

44  BEGINNING PEER ASSISTANT TRAINING 3 Units
(Formerly Human Services 44, Beginning Peer Assistant Training)
Prerequisite: Eligibility for English 57 or as determined by the assessment process.
Acceptable for credit: CSU
54 hours lecture
This course fosters the student’s understanding of CRC regulations and procedures, campus resources, study skills, and career planning, while training students in basic communication and counseling skills, including goal setting, problem solving, time management, and decision making. This course encourages students to develop a sense of responsibility and commitment to help others while preparing students to participate as peer advisors in a college setting.

45  TUTORING ELEMENTARY STUDENTS IN READING 3 Units
(Formerly Human Services 45, Tutoring Elementary Students in Reading)
Prerequisite: None.
36 hours lecture, 54 hours tutoring
This is a unique after-school program offered in conjunction with the Neighborhood Study Center Program. Students will be assigned to selected community schools and learn to be effective reading tutors for children reading below grade level. May be taken two times for credit. This course is recommended for students majoring in teacher preparation.

49  SPECIAL STUDIES IN HUMAN/CAREER DEVELOPMENT 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU

51A  COLLEGE SURVIVAL 1 Unit
Prerequisite: None.
18 hours lecture
The purpose of this course is to help the entry level college student develop the confidence, knowledge, and skills necessary to become successful in college. Topics covered in College Survival include campus resources, academic planning, self-esteem and motivation, assertiveness and interpersonal relationships, as well as the principles of time and stress management.

51B  STUDY SKILLS 1 Unit
Prerequisite: None.
18 hours lecture
The purpose of this course is to help the entry level college student develop the study skills necessary to become successful in college. Topics covered in Study Skills include note taking and listening, understanding learning style, SQ3R reading techniques, applied time management, test taking techniques, and basic library skills.
51C CAREER EXPLORATION 1 Unit
Prerequisite: None.
18 hours lecture
The purpose of this course is to help the entry level college student gain insight into the career planning process. Topics covered include self assessment of values, skills, and personality factors relevant to life planning. Students will learn how to balance career and personal life when making career decisions, become skilled in the use of career information resources, understand the nature of the changing labor market, and when appropriate, acquire job hunting skills.

54 TUTOR TRAINING IN LEARNING DISABILITIES .5 Unit
(formerly Human Services 53, Tutor Training in Learning Disabilities)
Prerequisites: Completion of, or concurrent enrollment in HCD 43, Placement in English 1A and/or Math 53 or a grade of "B" or better in English 57 and/or Math 51.
9 hours lecture
This course provides additional training for tutors interested in working with learning-disabled students at CRC on an individual and extended basis. Course content deals with awareness of the nature of learning disabilities, learning styles, and specific interventions available to tutors in working with learning-disabled students. This course is graded on a credit/no credit basis.

61 INDIVIDUALIZED CAREER DEVELOPMENT .5 Unit
Prerequisite: None
5-1/2 hours lecture, 11 hours laboratory
This course provides an opportunity for those who seek individualized career exploration and decision making assistance. Students will meet with a counselor to plan a 16 hour combination of lecture/lab activities that may include the following: 1) assessment of skills, interests and values, 2) utilization of Career Center resources, 3) participation in appropriate workshops, 4) connection to community resource network, 5) follow-up meetings with the counselor to develop a career goal and plan. Students may enter the course at any time during the first 12 weeks of the semester depending upon the availability of an instructor/counselor. This course is graded on a credit/no credit basis. To enroll, an interested student should see a counselor.

71 MULTISENSORY READING/SPELLING INSTRUCTION .5 - 4 Units
Prerequisite: Student must meet eligibility requirements for California Community College Learning Disabilities Services.
36-54 hours laboratory
This course is an individualized educational program designed and monitored by the Learning Disabilities Program instructor to develop the perceptual skills needed to improve reading and spelling. This course is graded on a credit/no credit basis.
Area of Humanities & Social Science

Human Services

DEGREES
A.A.—Human Services, General
A.A. Human Services, Gerontology (see Gerontology)

CERTIFICATES
Human Services, General (El Dorado Center)
Human Services, Gerontology (El Dorado Center) (see Gerontology)

This CRC program prepares students for employment as an associate professional with agencies such as youth group homes, youth and family services, schools, probation, welfare, and mental health departments.

Career Options
- Peer Support Group Facilitator; Youth Group Home Worker; Alcoholism Program Worker;
- Family, Welfare, and Health Agencies Worker; Ombudsman Program Workers;
- Work with Correctional Agencies; Consumer Consultant; County or State Eligibility Worker; Conflict Containment Workers

Highlights
- Individual and group counseling
- Tours of Human Services agencies
- Interviews with employers
- Employment training, including resumes, cover letters, and interviews

DEGREE
A.A.—Human Services, General
CODE #1152

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS 14</td>
<td>Introduction to Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HS 21</td>
<td>Introduction to Psychology of Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>HS 39</td>
<td>Employment Skills in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HS 41</td>
<td>Techniques of Interviewing and Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HS 42</td>
<td>Techniques of Group Counseling</td>
<td>4</td>
</tr>
<tr>
<td>HS 40</td>
<td>Practices in Human Services</td>
<td>6</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>General Principles</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Plus six (6) units selected from</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Human Services 22, 35, 47; Psychology 3; Sociology 1A, 5</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED: 31

Suggested Electives:
- Statistics 1.

General Education Graduation Requirements - See page 18.

CERTIFICATE
Human Services, General
CODE #1152

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tr>
<td>HS 39</td>
<td>Employment Skills in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HS 41</td>
<td>Techniques of Interviewing and Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HS 42</td>
<td>Techniques of Group Counseling</td>
<td>4</td>
</tr>
<tr>
<td>HS 40</td>
<td>Practices in Human Services</td>
<td>6</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>General Principles</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Plus six (6) units selected from</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Human Services 22, 35, 47; Psychology 3; Sociology 1A, 5</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED: 31
14 INTRODUCTION TO HUMAN SERVICES 3 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
A comprehensive overview of the field of Human Services in private and public agencies. Includes learning of agency functions and worker activities through reading, class discussion, and class speakers. Emphasis is on the roles and skills of associate professionals such as health workers, activity directors for the elderly, and adolescent and child welfare assistants.

21 INTRODUCTION TO PSYCHOLOGY OF HUMAN RELATIONS 3 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
Introduction to attitudes, values, and methods that enhance communication skills in human relations. Required course for the Human Services major. Open to all students.

22 INTRODUCTION TO COUNSELING CHILDREN 3 Units
Prerequisite: None.
54 hours lecture
A study of the tools children use daily to cope with feelings, adjust to changes, overcome disappointment and trauma, make sense out of the world around them and grow in their various relationships. Children's play medium will be experienced, with special emphasis on the importance of imagination and the use of fantasy. Assignments will require association with children.

35 INTRODUCTION TO CHEMICAL DEPENDENCY 3 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
A survey course that examines the psychological and physiological effects of chemical dependency on the individual. Also included is an analysis of the effects of substance abuse on the family; the sociological and economic conditions contributing to substance abuse, and a description of communication efforts at prevention and treatment.

39 EMPLOYMENT SKILLS IN HUMAN SERVICES 3 Units
Prerequisite: None
Acceptable for credit: CSU
54 hours lecture
Information in interviewing and counseling with parents, family system dynamics, family and drug intervention, crisis training, court mandated reporting, legislative mandates required of counselors, and laws pertaining to counseling minors and other client populations within Human Services Agencies.

40 PRACTICES IN HUMAN SERVICES 3 Units
Pre or Corequisite: Human Services 41.
Acceptable for credit: CSU
18 hours lecture, 108 hours laboratory
This course provides advanced study and supervised field experience in public and/or private agencies providing mental health, corrections, chemical dependency, and child/adolescent treatment services. Students apply concepts, values and skills acquired in other core courses to the process of helping others. Student evaluation is competency-based. This course may be taken four times for credit.

41 TECHNIQUES OF INTERVIEWING AND COUNSELING (formerly Human Services 41A) 3 Units
Prerequisite: Human Services 21.
Advisory: Human Services 14 and concurrent enrollment in Human Services 40.
Acceptable for credit: CSU
54 hours lecture
Exploration of the effectiveness of these techniques as applied to para-professional experiences as counselor and group counselor aides, mental health workers, social service technicians and other "new careers" on all academic levels in people-to-people services. This course is an integral part of the Human Services curriculum.

42 TECHNIQUES OF GROUP COUNSELING 4 Units
Prerequisites: Human Services 21, 40, and 41
Acceptable for credit: CSU
54 hours lecture, 54 hours laboratory
Techniques of counseling in groups with people of a variety of ages. Group exploration and sharing of feelings about problems presented. Recognition of unique and common problems and participation in understanding and behavior change.

47 CURRENT ISSUES IN HUMAN SERVICES 3 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
Exploration of those topics and issues which are most relevant for future and present workers in human services. Emphasis will be on those issues which are not consistently covered by other required human services courses. These issues may include: chemical dependency, interventions in poverty, stress management, child neglect and abuse, patient rights, and organization for advocacy.

48 WORK EXPERIENCE IN HUMAN SERVICES 1-4 Units
(See catalog p. 22)
Acceptable for credit: CSU - See Counselor

49 SPECIAL STUDIES IN HUMAN SERVICES 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU
Area of Humanities & Social Service

**Humanities**

This CRC program offers courses in classical, modern, American and Third World humanities. In each course, basic human values as exemplified in the arts, philosophy, religion and history, are examined.

Career Options
Communication; Education; Journalism; Law; Politics; Public Relations

Some career options may require more than two years of college study.

Highlights
Diversified and talented faculty
Hands-on experience in various fields relating to above career options
Excellent background in liberal arts for transfer or interdisciplinary study

### Humanities

**1 CLASSICAL HUMANITIES**

3 Units

Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
The course focuses upon Western culture in its attempt to interpret human experience and identity. The course examines basic human values as exemplified in the arts, philosophy and history. Emphasis is on the Greeks, the Romans, and the Judeo-Christian tradition up to the end of the Middle Ages.

**2 MODERN HUMANITIES**

3 Units

Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
The course focuses upon Western culture in its attempt to interpret human experience and identity. The course examines basic human values as exemplified in the arts, philosophy, and history. Emphasis is on the Renaissance, the Baroque period, and the Modern World.

**3 EASTERN HUMANITIES**

3 Units

Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
The focus of the course is on Far Eastern culture in its attempts to interpret human experience and identity. The quest for truth is traced in a variety of forms of humanistic self-expression—literature, art, music, philosophy and history. The course concentrates especially on India, China and Japan.

**4 GLOBAL ISLAM: CULTURE AND CIVILIZATION**

3 Units

Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
The course is an introduction to global Islamic cultures from the 7th century to contemporary times, with emphasis on religious/philosophic concepts, and their expression in literature and the arts. Focus is placed upon Arab, Persian, African, Asian and American contributions.
7 AMERICAN HUMANITIES 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This multi-media course focuses on modern American culture (1900 to the present). The literature, art, music, philosophy, history and architecture of modern America will be examined in an attempt to understand as well as participate in the 20th century American cultural revolution.

21H HONORS SEMINAR: 3 Units
NATURE & CULTURE
Prerequisite: None. (Not open to students who have received credit for Geography 21H.)
Acceptable for credit: CSU
54 hours lecture
This seminar examines multicultural interpretations and use of the environment from the Native American era to modern day within geographic regions as case studies. Interdisciplinary in approach, this course draws upon the natural sciences, humanities, and social sciences to explain how the physical environment has been interpreted, utilized, and impacted differently by various cultures through time. Two field trips are required as part of this seminar. This course is intended for academically-accomplished students, regardless of major. Permission of instructor needed for enrollment in this honors course.

47A HONORS SEMINARS IN HUMANITIES 1 Unit
Honors students will study the movements, trends and philosophies found in the humanities. (See Honors - catalog pages 20-21)

49 SPECIAL STUDIES IN HUMANITIES 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU, UC
Area of Humanities & Social Science

Interdisciplinary Studies

DEGREE
A.A.—American Studies
A.A.—Ethnic Studies
A.A.—Humanities
A.A.—Women's Studies

This CRC major is intended for students who wish a general background in the areas of humanities or social science at the community college level. Several options are offered in specific interest areas but all are intended to give the student an interdisciplinary foundation for further study or an overview of the area chosen. Students who also wish to transfer to a four-year college should plan their programs to meet general education and lower division major requirements. All students are encouraged to consult with a counselor.

Career Options
Religious Service; Human Service Careers; Research; Teacher; Law; Administrator; Attorney; Historian; Foreign Service; Archivist; Social Worker; Public Relations Consultant; Employment Counselor; Probation Officer; Counselor

Some career options may require more than two years of college study. Courses beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Highlights
A valuable foundation for a variety of career or transfer opportunities
Diversified and talented faculty
Overview of theoretical and cultural principles

DEGREE
A.A.—Interdisciplinary Studies, American Studies
CODE #1158

REQUIRED PROGRAM .................................Units
15 units selected from:
(no more than one course selected from each group)
(a.) English 30, 31, 40;
(b.) History 14, 15, 17, 18, 21, 35;
(c.) Humanities 7;
(d.) Political Science 1;
(e.) Psychology 28;
(f.) Social Science 42, 44, 45;
(g.) Sociology 1A, 1B, 5 ................................................... 15
Six (6) units selected from:
(no more than one course selected from each group)
(a.) Business 20;
(b.) History 4, 5;
(c.) Humanities 2;
(d.) Philosophy 6, 8 ....................................................... 6
TOTAL UNITS REQUIRED ........................................ 21

General Education Graduation Requirements - See page 18.

DEGREE
A.A.—Interdisciplinary Studies, Ethnic Studies
CODE #1159

REQUIRED PROGRAM .................................Units
Sociology 5  Minorities in America ................................. 3
Nine (9) units selected from:
(no more than one course selected from each group)
(a.) English 40;
(b.) History 14, 15;
(c.) Social Science 42, 44, 45 ......................................... 9
Nine (9) units selected from:
(no more than one course selected from each group)
(a.) Business 20;
(b.) English 30, 31;
(c.) History 14, 15, 17, 18, 21, 35;
(d.) Humanities 7;
(e.) Philosophy 10;
(f.) Political Science 1;
(g.) Psychology 28;
(h.) Sociology 1A, 1B ..................................................... 9
TOTAL UNITS REQUIRED ........................................ 21

General Education Graduation Requirements - See page 18.
DEGREE
A.A.—Interdisciplinary Studies, Humanities
CODE #1160
REQUIRED PROGRAM ............................................................. Units
Nine (9) units selected from:
   Humanities 1, 2;
   Philosophy 6 ................................................................. 9

Twelve (12) units selected from:
   (no more than one course from each group)
   (a.) Art 10;
   (b.) English 15, 30, 31, 33, 34, 35, 36, 40;
   (c.) Humanities 3, 4, 7;
   (d.) Music-MUFHL 6, 10, 11;
   (e.) Philosophy 4, 5, 8, 10;
   (f.) Theatre Arts 1; Communications Media 14 .......... 12
TOTAL UNITS REQUIRED .............................................................. 21

General Education Graduation Requirements - See page 18.

DEGREE
A.A.—Interdisciplinary Studies, Women's Studies
CODE #1161
This program is designed for both men and women, focusing on women and their:
• Achievements
• Psychology
• Historical Significance
• Cultural and Social Contribution
• Roles in Society and the Political System
• Literary Significance, and
• Positions in the Business World

REQUIRED PROGRAM ............................................................. Units
Nine (9) units selected from:
   English 27
   History 35
   Psychology 25, 28 ............................................................ 9

Twelve (12) units selected from:
   (no more than one course from each group)
   (a.) Business 20;
   (b.) English 27, 30, 31, 33, 34, 35, 36, 40;
   (c.) History 14, 15, 17, 18, 21, 35;
   (d.) Humanities 7;
   (e.) Philosophy 4, 5, 8;
   (f.) Political Science 1;
   (g.) Psychology 25, 28 34;
   (h.) Social Science 42, 44, 45;
   (i.) Sociology 1A, 1B, 5 ................................................ 12
TOTAL UNITS REQUIRED .............................................................. 21

General Education Graduation Requirements - See page 18.

Interdisciplinary Studies

4A MATHEMATICS, .5 Unit
COMPUTER INFORMATION SCIENCE, ENGINEERING AND SCIENCE ACHIEVEMENT
Prerequisite: None.
Acceptable for credit: CSU
9 hours lecture
This course introduces the MESA student to the skills needed for academic success in mathematics, computer information science, engineering, and science. The course covers study skills, learning styles, SCANS skills, college logistics, and transfer processes as they relate to the study of math and science. The course is intended for students who will transfer to universities in a math-based major (computer science, chemistry, biology, physics, etc.). This is the first one-half unit of a one unit combination of courses that will provide academic and career support to MESA students and other students in math-based majors who wish to develop study skills specific to those disciplines. (Interdisciplinary Studies 4B or 4C will complete the combination.)

4B ACADEMIC SKILLS FOR A CAREER .5 Unit
IN ENGINEERING, COMPUTER INFORMATION SCIENCE, MATHEMATICS, PHYSICS AND RELATED DISCIPLINES
Prerequisite: None.
Advisory: Interdisciplinary Studies 4A
Acceptable for credit: CSU
9 hours lecture
This course introduces the MESA student to academic skills and career exploration needed for advanced study toward a career in Mathematics, Engineering, and Physics. The course will cover advanced academic skills including literature searches, data analysis, technical terminology, and mathematics problem solving as applied to engineering, computer information science, mathematics, and physics. It will also provide an overview of careers in engineering, computer information science, math, and physics including the education, type of work conducted by professionals, and employment opportunities in these fields. This course is the second one-half unit of a one unit package of courses (see Interdisciplinary Studies 4A) that will provide academic and career support to MESA students and other students in math-based majors.

4C ACADEMIC SKILLS FOR A CAREER .5 Unit
IN CHEMISTRY, BIOLOGY AND RELATED DISCIPLINES
Prerequisite: None.
Advisory: Interdisciplinary Studies 4A
Acceptable for credit: CSU
9 hours lecture
This course introduces the student to academic skills and career exploration needed for advanced study toward a career in chemistry, biology, biochemistry, medicine, environmental sciences and similar fields. The course will cover advanced academic skills including literature searches, data analysis, technical terminology, and problem solving as applied to chemistry or biology related fields of study. It will also provide an overview of careers in these disciplines including necessary education, type of work conducted by professionals in these fields, and employment opportunities. This course is the second one-half unit of a one unit package of courses (see Interdisciplinary Studies 4A) that will provide academic and career support to MESA students and other students in chemistry or biology related based majors.
Prerequisite: Completion of or concurrent enrollment in a transfer-level science or in a mathematics majors course.
Advisory: CIS 1
36 hours lecture
This course will focus on essential computer skills for students who are majoring and/or working in the natural sciences (biology, botany, natural resources), the environmental sciences (environmental science/technology), engineering, or the physical sciences (astronomy, physics, chemistry, geography, geology). Students will be introduced to wordprocessing software, presentation software, spreadsheets, databases, and the World Wide Web to analyze and represent mathematical/scientific information.
Area of Careers and Technology

**Interior Design**

**DEGREE**  A.S.—Environmental Design, Interior Design

**CERTIFICATES**  Interior Design
Lighting Design

**Interior Design** and its relationship to the environment should be the primary consideration of students enrolled in this CRC program. A sound background in architectural design is fundamental to the solution of interior design problems. Students develop concepts in spatial arrangement through the use of line, shape, form, color, and texture which may then be used in designing interiors. Training in drafting, interpretation of blueprints and specifications, use of materials and the ability to present a suitable rendering must all be part of the training of the interior design student.

The Lighting Design program at Cosumnes River College is a certificate program designed to provide skills for employment and professional development in the growing lighting industry. Lighting shapes our perceptions of the world in which we live. It has direct effect on our safety, comfort and performance, both at work and at home. Lighting is also one of our biggest energy consumers. It has a substantial economic impact on individuals and societies. Explosive technological advances, coupled with a new awareness of energy availability and environmental impacts, have created a need for new ways to apply advanced concepts to effective and efficient lighting.

Additional course work in Interior Design is available at American River College for completion of the A.A.Degree.

**NOTE:** It is highly recommended that each student keep a complete record of work to present for evaluation by university program advisors and/or employers.

**Career Options**
Interior Designers; Design Assistants; Retail Sales; Textile Decorators; Utility Lighting Auditors; Assistant Lighting; Specifiers/Designers; Facilities Lighting Coordinators

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

**Highlights**
- Viewing of period pieces and their relationship to structure
- Field trips to a variety of model homes and interior design showcases for study and appreciation
- Experience designing and constructing interior products and furniture
### A.S.—Environmental Design, Interior Design

**CODE #1112**

**REQUIRED PROGRAM**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 3</td>
<td>Architectural Design and Communication I</td>
<td>3.5</td>
</tr>
<tr>
<td>ARCH 5</td>
<td>Design Fundamentals</td>
<td>3.5</td>
</tr>
<tr>
<td>ARCH 6</td>
<td>Architectural Design and Communication II</td>
<td>3.5</td>
</tr>
<tr>
<td>ARCH 16</td>
<td>Architectural Working Drawings</td>
<td>4</td>
</tr>
<tr>
<td>ART 14</td>
<td>Design: Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ART 15B</td>
<td>Design: Color Theory</td>
<td>3</td>
</tr>
<tr>
<td>CMT 51</td>
<td>Materials of Construction</td>
<td>3</td>
</tr>
<tr>
<td>INT DES 20</td>
<td>Fundamentals of Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>INT DES 30</td>
<td>Period Furniture: Foundations of Style</td>
<td>3</td>
</tr>
<tr>
<td>INT DES 31</td>
<td>Contemporary Furniture</td>
<td>3</td>
</tr>
<tr>
<td>INT DES 35</td>
<td>Interior Environment and Space Planning</td>
<td>3</td>
</tr>
<tr>
<td>INT DES 54</td>
<td>Specifications and Professional Practices</td>
<td>3</td>
</tr>
<tr>
<td>INT DES 98</td>
<td>Work Experience in Interior Design</td>
<td>1-4</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED** 42-45

**Suggested Electives:**
- Architecture 1, 10; Drafting 51; Interior Design 45.

**General Education Graduation Requirements - See page 18.**

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### Interior Design

**NOTE:** Classes in this area are offered only as student demands dictate. The college cannot guarantee that insufficient enrollment may not cancel some classes.

**20 FUNDAMENTALS OF INTERIOR DESIGN** 3 Units

**Prerequisite:** None.

Acceptable for credit: CSU

54 hours lecture, 18 hours laboratory

Essentials of interior decoration and furnishings. Study and application of principles of color and design, period influence, selection and arrangement of decoration materials; organized selection of furnishings and materials. Field trips to design centers and show houses are included.

**21 TEXTILES** 3 Units

**Prerequisite:** None.

Acceptable for credit: CSU, UC

54 hours lecture

A study of textile fibers and their use in many fabrics utilized in clothing, in household items, as decoration, and in industry. Emphasis will be placed on the proper selection, use and care of textiles. Of value to family and consumer science majors, merchandising and interior design students.

**30 PERIOD FURNITURE: FOUNDATIONS OF STYLE** 3 Units

**Prerequisite:** None.

Advisory: Interior Design 20

Acceptable for credit: CSU

54 hours lecture

Study of the foundations of architecture and furniture styles of the Western world from ancient Egypt through the Victorian period. Covers social, political and physical factors affecting the design and development of specific styles and periods. Description of dominant influences and characteristics of historical interiors, furniture, ornamental design and architecture. Field trip to a museum of period furniture is included.

**31 CONTEMPORARY FURNITURE** 3 Units

**Prerequisite:** None.

Advisory: Interior Design 30

Acceptable for credit: CSU

54 hours lecture

Study of architecture and interiors of the Western world from the beginning of the Industrial Revolution to the present day. Also includes Oriental influences and minor art periods that have affected these styles.
### 35 INTERIOR ENVIRONMENT AND SPACE PLANNING 3 Units

Prerequisite: None.
Advisory: Interior Design 20 and 30; Art 14; Completion of or concurrent enrollment in Drafting 51.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
Analysis and application of design concepts and material sources for interior environments. Interrelationships between interior space, architectural form, and human factors will be emphasized. Field trips to design centers and design show houses included.

### 42 LIGHTING DESIGN 3 Units

Prerequisite: None.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course introduces and applies the basic principles of lighting design and application. Topics include: visual perception, properties of light and color, sources and luminaries, lighting design elements and techniques and elementary calculations. Applications in residential, retail, display, office and outdoor specialty lighting will be studied. Energy efficient lighting practices and applicable codes and regulations are emphasized. The student will develop written and graphic lighting design documents. Field trips are included.

### 43 APPLIED LIGHTING TECHNOLOGY 3 Units

Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
This course introduces electrical theory, electrical circuiting and wiring methods as applied to lighting. It also develops in greater detail the understanding of lighting equipment and lighting controls. Topics include: Ohm’s Law, single-phase and three-phase power, power factor, harmonics, overview of the utility system electrical power distribution equipment and wiring, evaluation of discharge lamp/ballast systems, retrofit devices and lighting controls. Energy efficient lighting applications, applicable codes and analysis techniques are emphasized. The student will become familiar with primary factors affecting lighting equipment and control performance. Field trips are included.

### 45 FURNITURE AND PRODUCT DESIGN 3 Units

Prerequisite: None.
Advisory: Architecture 12
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
A class offering students an opportunity to design and construct interior products and furniture expressing utility of design forms.

### 49 SPECIAL STUDIES IN INTERIOR DESIGN 1-3 Units

(See catalog p. 21)

### 54 SPECIFICATIONS AND PROFESSIONAL PRACTICES 3 Units

Prerequisite: None.
Advisory: Interior Design 35
36 hours lecture, 54 hours laboratory
Covers business and practical aspects of the interior design profession. Includes ethical practices, assessment of the quality and quantity of materials used in interior design and decoration with emphasis on specifications, construction techniques, and installation processes.

### 98 WORK EXPERIENCE IN INTERIOR DESIGN 1-4 Units

(See catalog p. 22)
Acceptable for credit: CSU - See Counselor
Area of Communication, Visual & Performing Arts

Journalism

DEGREE A.A.—Communications Media, Journalism

CERTIFICATE Desktop Publishing (see Computer Information Science - page 97)

The Journalism program is designed to train students in the writing, reporting and critical thinking skills required for jobs in the news media or for transfer to a journalism program at a four-year institution.

Career Options
    Script Writer; Copy Writer; Journalist;
    Newspaper Reporter; Magazine Editor;
    Columnist; Desktop Publishing Specialist; Public Information Officer;
    On-Line Writer/Editor

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Highlights
    Hands-on experience publishing the college's award-winning newspaper, The Connection (or The Campus Reflections for those attending Folsom Lake and El Dorado Centers). The newspapers showcase students' work in writing, photography, editing, graphic illustration and publication design.

    Instruction and practice in desktop publishing, digital photography and graphics applications in the department's Macintosh laboratory or in the campus PC computer laboratory.

    Opportunities to attend state journalism conferences, compete for awards in writing, photography, editing and graphic art, and qualify for scholarships.

    Opportunities for internships on newspapers, magazines, and in public relations firms.

    New worldwide web newspaper on which students can experiment, showcase work, and learn "HTML."

DEGREE
A.A.—Communications Media, Journalism
CODE #1058

REQUIRED PROGRAM .................................................... Units
CMED 5 / JOUR 10 Mass Media & Society .................................. 3
JOUR 20A Newswriting & Reporting ...................................... 3
JOUR 30 College Newspaper Production .............................. 2-3/2-3
JOUR 33 Editing & Production .......................................... 3
CMED 98 Work Experience ................................................ 1-4
PHOTO 40 Beginning Photography ........................................ 3

Core Electives—nine (9) units selected from ................................ 9
CIS 21A Introduction to the Internet (1)
CIS 21B Web Page Design (1)
CMED 73 Broadcast Journalism (3)
JOUR 1/CIS 1 Computer Familiarization (1)
JOUR 12 Race and Gender in the Media (3)
JOUR 35A/CIS 17A Introduction to Desktop Publishing (2)
JOUR 35B/CIS 17B Intermediate Desktop Publishing (2)
JOUR 40 Writing for Publication (3)
JOUR 47 Publications Production Skills Lab (.5-3)
PHOTO 57 Digital Imaging (3)

TOTAL UNITS REQUIRED ............................................... 26-31

Suggested Electives:
Communications Media 63, 64; Economic 1A; English 1A;
Photography 41, 42; Political Science 10

General Education Graduation Requirements - See page 18.
**1 COMPUTER FAMILIARIZATION**

1 Unit  
Prerequisite: None.  
Acceptable for credit: CSU  
9 hours lecture, 27 hours laboratory  
This is an introductory course to provide general knowledge on how computers work, computer terminology and the impact of computers on society and the work environment. Beginning level hands-on instruction using an operating system, wordprocessing software, spreadsheet software, and the Internet will be emphasized. Students will be reading and interpreting written and oral instructions of a technical nature.

**10 MASS MEDIA AND SOCIETY**

3 Units  
Prerequisite: None. (Not open to students who have received credit for Communications Media 5.)  
Acceptable for credit: CSU, UC  
54 hours lecture  
Survey of the mass media: history, philosophy, structure and trends, as well as theories which help to explain effects and the importance of mass communications as a social institution. Exploration of economics, technology, law, ethics, and social issues, including cultural and ethnic diversity.

**12 RACE AND GENDER IN THE MEDIA**

3 Units  
(formerly Minorities, Women and the Media)  
Prerequisite: None.  
Acceptable for credit: CSU, UC  
54 hours lecture  
This course examines the roles of ethnic minorities and women in American society as depicted, documented and distorted in the mass media. Students will study ethnic, racial and gender issues in mass media content, development, policy, and professions, including media stereotypes, contributions of diverse groups to the media and mass communications as an agent of social change.

**20A NEWSWRITING AND REPORTING**

3 Units  
Prerequisite: None.  
Advisory: Eligibility for English 1A  
Acceptable for credit: CSU  
54 hours lecture  
Introductory course in basic newswriting and reporting. Course concentrates on fundamental writing techniques for mass media. Course also emphasizes the legal and ethical responsibilities of the news media with critical analysis of current news report practices.  
(CAN JOUR 2)

**20B ADVANCED NEWSWRITING AND REPORTING**

3 Units  
Prerequisite: None.  
Advisory: English 1A or Journalism 20A  
Acceptable for credit: CSU  
54 hours lecture  
Interpretive newswriting with emphasis on public affairs, specialized reporting, mastery of fundamental reporting techniques, and an introduction to feature and editorial writing.

**25 MEDIA WRITING**

1 Unit  
Prerequisite: None.  
Acceptable for credit: CSU  
18 hours lecture  
An introduction to writing copy for advertising, public relations and publications. This course covers writing techniques and copy preparation for brochures, newsletters, in-house publications, press releases, display advertising and other visual presentations.

**30 COLLEGE NEWSPAPER PRODUCTION**

2-3 Units  
Prerequisite: None.  
Acceptable for credit: CSU  
18-36 hours lecture, 54 hours laboratory  
This course provides instruction and experience in the principles and practice of newspaper production. The course offers instruction in writing, editing, photography, graphics, design and computerized layout for publications. Students work as writers, editors, graphic artists and photographers for the college newspaper. This course may be taken four times for credit.

**33 EDITING AND PRODUCTION**

3 Units  
Prerequisite: None.  
Acceptable for credit: CSU  
54 hours lecture  
Instruction and practice in editing and designing newspapers, magazines, technical reports, and other publications. Topics include copy editing, headline writing, photo editing, page make-up and design, and production methods. Editorial writing, press ethics and press law are also discussed.
35A INTRODUCTION TO DESKTOP PUBLISHING
2 Units
Prerequisite: None. (Not open to students who have received credit for Computer Information Science 17A)
Advisory: Computer Information Science 1 or 3, or Journalism 1.
Acceptable for credit: CSU
27 hours lecture, 27 hours laboratory
This course will cover the introductory elements of desktop publishing. The course is taught in three modules with a project attached to each module. The course covers hardware and software, elements of design, computer graphics, text composition, page layout, and integration of text and graphics. Projects may include, but are not limited to: business cards, stationery, logos, covers, flyers, brochures, and newsletters. Students may receive two units credit for each topic offered. Consult the class schedule for specific topics.

35B INTERMEDIATE DESKTOP PUBLISHING
2 Units
Prerequisite: Computer Information Science 17A or Journalism 35A. (Not open to students who have received credit for Computer Information Science 17B)
Acceptable for credit: CSU
27 hours lecture, 27 hours laboratory
This course will cover the intermediate elements of desktop publishing. The course is taught in three modules with a project attached to each module. The course covers intermediate hardware and software, elements of intermediate design, graphics and text composition, multi-page layout, design for publishing presentations, project management, and single- and multi-page documents. Projects may include, but are not limited to: reports, slicks, slides, overheads, posters, transparencies, billboards, brochures, and newsletters. Students may receive two units credit for each topic offered. Consult the class schedule for specific topics. Recommended supplemental courses: CIS 11A; Architecture 5 or Art 14; and CIS 15A.

40 WRITING FOR PUBLICATION
3 Units
Prerequisite: English 1A or Journalism 20A
Acceptable for credit: CSU
54 hours lecture
Writing nonfiction for publication with emphasis on developing writing style. The course covers writing for specific audiences, writing magazine and feature articles, researching and interviewing and developing an effective prose style. Students will learn how to write reviews, profiles, personal narratives and longer articles and how to sell them.

47 PUBLICATIONS PRODUCTION SKILLS LAB
.5-3 Units
Prerequisite: Concurrent enrollment in Journalism 30 or Journalism 33.
27-162 hours laboratory
This lab course helps students improve their writing, editing, and computer skills as an addition to their enrollment in Editing and Production or College Newspaper Production. Students may earn up to three units per semester, and repeat the class until they reach a maximum of six units.

49 SPECIAL STUDIES IN JOURNALISM
1-3 Units
Acceptable for credit: CSU

54 PUBLIC RELATIONS MEDIA TECHNIQUES
3 Units
Prerequisite: None.
54 hours lecture
A study of the practice of public relations; planning PR campaigns; preparing promotional messages for newspapers, magazines, radio and television; using public relations techniques in business, education, entertainment, social service and other fields.
Area of Learning Resources & College Technology

Library

The CRC Library courses are designed to equip students with vital research skills, enabling their success in college classes and on the job. The student will gain "research survival skills" to cope with the information rich environment in which we live and work.

Students interested in a career in Library and Information Science will need to earn a bachelor's degree and a graduate library degree. Students interested in becoming school librarians can obtain an additional library credential through CSU once they have completed their bachelor's degree and basic credential program. Paraprofessional library careers are available by completing a Library technology program at a community college.

Highlights
- Learn how to use the library
- Efficient use of sources of information
- Helpful skills for research and term paper writing
- Learn how to evaluate materials

Library

15 LIBRARY RESEARCH AND INFORMATION LITERACY (formerly Library Information Literacy)
Prerequisite: None.
Acceptable for credit: CSU, UC
18 hours lecture
This course will help students acquire the information competency skills necessary to conduct academic or personal research. It provides a step-by-step guide to the research process that is applicable to term papers, course work and life-long learning.

30 INTRODUCTION TO INTERNET AND SEARCHING STRATEGIES
Prerequisite: None
Acceptable for credit: CSU
54 hours lecture
An introduction to the use and evaluation of electronic information sources focusing on the Internet. Course will discuss Internet resources, functions and options for Internet access. Course will emphasize evaluation and comparison of information sources.
Area of Business & Family Science

Management

DEGREE A.A.—Management
CERTIFICATE Retail Management

This broad-based management program offers introductory courses as well as more specialized ones ranging from studies of the standard corporate organization to analyzing the small business.

Managers help organizations achieve their objectives through effective planning, organizing, directing, and controlling. The management program attempts to develop an understanding of the importance and diversity of its related fields.

This program prepares students for entry into a company management training program and upgrades the skills of those already working in industry, allowing them to advance to supervisory positions. Students planning vocations in personnel services or analyst positions in state or federal government service should also consider this degree program.

For SMALL BUSINESS MANAGEMENT/ENTREPRENEURSHIP, see Business, page 77.

Career Options
Branch Manager; Department Manager; First-line Supervisor; Office Manager; Plant Manager; Project Manager; Entrepreneur; Shift Supervisor; Small Business Owner/Manager;

Some career options may require more than two years of college study.

Highlights
- Additional training in courses acceptable as electives for civil service professional occupations
- Hands-on experience in the use of computers for business purposes
- Opportunities for work experience in local industry, business, and government
- Continuous quality improvement through Total Quality Management
- A lab with tutorial assistance

DEGREE
A.A.—Management
CODE #1169

REQUIRED PROGRAM ............................................................. Units

Business Core:
ACC 1A Financial Accounting .................................................. 4
BUS 8 Business Communications .......................................... 3
BUS 15 Managing Diversity in the Workplace .......................... 3
BUS 18A Business Law ............................................................... 3
BUS 20 Introduction to Business ............................................. 3
BUS 41 Introductory Keyboarding ........................................... 1.5
MKT 20 Principles of Marketing .............................................. 3
ECON 1APrinciples of Economics or ECON 14/BUS 14 Concepts of Personal Finance ....................... 3
CIS 3 Introduction to Computer Information Science or Three (3) units to include:
  CIS 1/DUR 1 Computer Familiarization and Any two (2) additional units selected from:

Management Option:
  MGMT 1 Total Quality Management or MGMT 24 Techniques of Management ................................. 3
  MGMT 23 Human Relations and Organizational Behavior .......................... 3

Plus six (6) units selected from .................................................. 6
BUS 70, 71A, 71D, 71E, 71-I, MGMT 21, 80, 82

Plus three (3) units selected from ............................................. 3
BUS 98 Work Experience or Human/Career Development (any course combination)

TOTAL UNITS REQUIRED ....................................................... 41.5

Suggested Electives:
Accounting 1B, 77; Marketing 50, 51

General Education Graduation Requirements - See page 18.
### Retail Management

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 60</td>
<td>Fundamentals of College Accounting or</td>
<td>3-4</td>
</tr>
<tr>
<td>ACC 1A</td>
<td>Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>BUS 60</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 8</td>
<td>Business Communications or</td>
<td></td>
</tr>
<tr>
<td>BUS 50</td>
<td>Business English or</td>
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<tr>
<td>MGMT 21</td>
<td>Management Communication</td>
<td>3</td>
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<tr>
<td>CIS 11A</td>
<td>Beginning Wordprocessing</td>
<td>1</td>
</tr>
<tr>
<td>CIS 12A</td>
<td>Electronic Spreadsheets</td>
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<tr>
<td>MGMT 24</td>
<td>Techniques of Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 82</td>
<td>Personnel &amp; Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 23</td>
<td>Human Relations and Organizational Behavior</td>
<td>3</td>
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<tr>
<td>MKT 20</td>
<td>Principles of Marketing</td>
<td>3</td>
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<tr>
<td>MGMT 24</td>
<td>Retailing</td>
<td>3</td>
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<td>SPEE 1</td>
<td>Speech Communication or</td>
<td>3</td>
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<tr>
<td>SPEE 10</td>
<td>Interpersonal Communication</td>
<td>3</td>
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</tbody>
</table>

**TOTAL UNITS REQUIRED**: 29-30

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#### 2E TOTAL QUALITY MANAGEMENT 4 Units

**Prerequisite**: Management 1.  
72 hours lecture  
This course continues the development of the student's knowledge and continues the acquisition of "Profound Knowledge," as described by Dr. W. Edwards Deming. The class focuses on the knowledge of systems and systems analysis for quality using Essential Process Analysis (EPA); a deepening understanding of basic team formation/member psychology; and the role of integrity in society, the organization, the team, and individual lives.

#### 2F TOTAL QUALITY MANAGEMENT 4 Units

**Prerequisite**: Management 2E.  
72 hours lecture  
This course continues the development of the student's knowledge and continues the acquisition of "Profound Knowledge," as described by Dr. W. Edwards Deming. The class focuses on the knowledge of the "service model of quality" as initially developed in Europe and now in America; the design and introduction of "empowered teams" into organizations, and the importance of dealing with fear in organizations.

#### 2G TOTAL QUALITY MANAGEMENT 4 Units

**Prerequisite**: Management 2F.  
72 hours lecture  
This course continues the development of the student's knowledge and continues the acquisition of "Profound Knowledge," as described by Dr. W. Edwards Deming. The class focuses on the knowledge of current economic problems and their root cause being a failure to focus on human vs. economic values, on the real problems of management being those of an ethical nature and what the new TQM model proposes as a solution, on the needs and specific tasks to be undertaken in transforming vs. changing organizations, and on the case studies of both private and public sector efforts to make those changes in today's world.

#### 21 MANAGEMENT COMMUNICATION 3 Units

**Prerequisite**: None. Management 51 desirable.  
54 hours lecture  
This course provides skill training in coping with communication problems in organizations and includes the study of the communication process, the analysis of the barriers to effective oral and written communication, and the development of guidelines to improve interpersonal relations within an organization through the effective methods of oral and written communications.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Acceptable for credit</th>
<th>Hours Lecture/Lab</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>23</td>
<td>Human Relations and Organizational Behavior</td>
<td>3</td>
<td>(formerly Management 60, Human Relations and Organizational Behavior)</td>
<td>None</td>
<td>54</td>
<td>Effective human interaction principles that build confidence, competence, and positive attitudes in work organizations are learned in this course. Topics include the basis for human behavior, perception, communication, motivation, performance improvement, group behavior, ethics, and social responsibility. This course emphasizes the psychology of human relations management.</td>
</tr>
<tr>
<td>24</td>
<td>Techniques of Management</td>
<td>3</td>
<td>(formerly Management 50, Techniques of Management)</td>
<td>None</td>
<td>54</td>
<td>This is a basic course in management that introduces a variety of modern management concepts. This course includes the basic management functions of planning, organization, staffing, leadership, and control. In addition, such concepts as team development, communication, business ethics, and global management perspectives will be discussed.</td>
</tr>
<tr>
<td>49</td>
<td>Special Studies in Management</td>
<td>1-3</td>
<td></td>
<td></td>
<td>18</td>
<td>This short course is designed to give potential and practicing facilitators an understanding of the theories, practices, and tools of facilitation. The use of numerous checklists and experiential exercises is designed to allow immediate application of the tools and techniques in the work environment. Upon completion of this course, the student will be capable of identifying problems, delivering feedback, and coaching for continuous improvement.</td>
</tr>
<tr>
<td>73</td>
<td>Labor-Management Relations</td>
<td>3</td>
<td></td>
<td></td>
<td>54</td>
<td>This course analyzes the dynamics between labor and management. The course emphasis is placed on the need for mutual satisfaction to have a good working relationship. Students will be made aware of special considerations necessary in collective bargaining to ensure a &quot;win-win&quot; collaborative contract. Students will be using mathematical concepts, as well as reading and interpreting written and oral instructions.</td>
</tr>
<tr>
<td>74</td>
<td>Facilitating Teams and Facilitation Tools</td>
<td>1</td>
<td></td>
<td></td>
<td>18</td>
<td>This introductory course in supervision is designed to meet the needs of students making the transition from employee to supervisor. Employee motivation, morale, working conditions, communications with employee groups, counseling and interviewing workers, group dynamics, and case studies from business are used to prepare the new supervisor. Students will be using mathematical concepts as well as reading and interpreting written and oral instructions.</td>
</tr>
<tr>
<td>75</td>
<td>Project Management and Techniques and Software</td>
<td>3</td>
<td>None (Not open to students who have received credit for CIS 75.)</td>
<td>CSU</td>
<td>36</td>
<td>This is an introductory course covering the responsibilities of a project manager. It includes knowledge needed to manage project resources. The course will also introduce the student to the use of project management software to track project resources, tasks, and milestones.</td>
</tr>
<tr>
<td>80</td>
<td>Organization Management</td>
<td>3</td>
<td></td>
<td></td>
<td>54</td>
<td>This course gives managers the tools to organize workers in ways that will best meet the needs of a business at a particular time. Decision-making skills for various situations will be taught. Analysis of the business, its competition, and the need for change on an on-going basis will be stressed. Students will be using mathematical concepts, as well as reading and interpreting written and oral instructions.</td>
</tr>
<tr>
<td>81</td>
<td>Introduction to Supervision</td>
<td>3</td>
<td></td>
<td></td>
<td>54</td>
<td>This introductory course in supervision is designed to meet the needs of students making the transition from employee to supervisor. Employee motivation, morale, working conditions, communications with employee groups, counseling and interviewing workers, group dynamics, and case studies from business are used to prepare the new supervisor. Students will be using mathematical concepts as well as reading and interpreting written and oral instructions.</td>
</tr>
<tr>
<td>82</td>
<td>Personnel and Human Resource Management</td>
<td>3</td>
<td></td>
<td></td>
<td>54</td>
<td>This course presents the student with the materials necessary to begin the complex study and analysis of such areas as civil rights, labor law, the personnel/Human Resources organization and various management theories currently found in both public and private sector organization.</td>
</tr>
<tr>
<td>98</td>
<td>Work Experience in Management</td>
<td>1-4</td>
<td></td>
<td></td>
<td></td>
<td>(See catalog p. 22)</td>
</tr>
</tbody>
</table>
Area of Business & Family Science

Marketing

DEGREE A.A.—Marketing

CERTIFICATE Applications of Desktop GIS (Business/Marketing emphasis) (see page 259)

Marketing is a dynamic area of study that provides immediate job and career opportunities after one course or the completion of a degree. The skills learned are easily converted into well-paying careers by many students. There is no limit to your success when these areas of study are utilized successfully. The skills learned are essential for international and domestic business and for companies large and small. Please refer to the Business section, pages 77-82 for additional marketing courses.

A rewarding future awaits those who are motivated and enjoy working in one of the following marketing areas:

Career Options
Buyer; Account Executive; Entrepreneur; Investment Counselor; Marketing Services; Stockbroker; Purchasing Agent; Salesperson; Shipping Clerk; Marketing Manager; Export / Import

Some career options may require more than two years of college study.

Highlights
Additional training in courses acceptable as electives for civil service professional occupations
Opportunities for Work Experience in local industry and business
Training in a career where one third of the presidents of Fortune 500 corporations have marketing backgrounds
Coursework in international marketing
A lab with tutorial assistance

See also
SMALL BUSINESS MANAGEMENT/ENTREPRENEURSHIP Certificate and Degree located in Business section, see page 77.

DEGREE
A.A.—Marketing
CODE #1177

REQUIRED PROGRAM ............................................................. Units

Business Core:
ACC 1A Financial Accounting (4) or ACC 60 Fundamentals of College Accounting (3) .......... 3-4
BUS 8 Business Communications ........................................ 3
BUS 15 Managing Diversity in the Workplace ........................... 3
BUS 18A Business Law .......................................................... 3
BUS 20 Introduction to Business ............................................ 3
BUS 41 Introductory Keyboarding .......................................... 1.5
CIS 3 Introduction to Computer Information Science (3) or Three (3) units to include:
CIS 1/JOUR 1 Computer Familiarization (1) and
Any two (2) additional units selected from:
ECON 1A Principles of Economics or ECON 14/BUS 14 Concepts of Personal Finance ........ 3
MGMT 1 Introduction to Total Quality Management or MGMT 24 Techniques of Management ......................... 3

Marketing Option:
MKT 20 Principles of Marketing ............................................. 3
MKT 22 Selling Professionally ................................................ 3
MKT 24 Retailing or BUS 70 Small Business Management/Entrepreneurship or Three (3) units selected from:
MKT 26/COM MED 60 Advertising ........................................ 3
BUS 98 Work Experience (3) or Human/Career Dev. (any course combination) ................. 3
TOTAL UNITS REQUIRED .............................................. 40.5-41.5

Suggested Electives:
CIS 15A, 17A; Marketing 50, 51; Real Estate 19

General Education Graduation Requirements - See page 18.

 COSUMNES RIVER COLLEGE  2000 - 2001 Marketing 213
20 PRINCIPLES OF MARKETING 3 Units
(formerly Business 61, Principles of Marketing)
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
This course is a general overview of marketing principles. The course covers the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational goals. Elements of the marketing environment such as government regulation, environmental protection, competition, and consumer behavior will be analyzed.

22 SELLING PROFESSIONALLY 3 Units
(formerly Business 62, Selling Professionally)
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
This course shows the importance of good selling techniques and the personal qualifications required for effective selling. It emphasizes the development of a business personality and its application to the approach, direction, and closing of a sale. It also examines various kinds of selling experience: direct, industrial, wholesale and retail. This course is recommended for men and women preparing for various technical fields as well as all business majors.

24 RETAILING 3 Units
(formerly Business 63, Retailing)
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
Retailing is a business that provides goods and services to customers for their personal use. This course will study modern retail operations with emphasis on consumer behavior, store location and layout, sourcing of goods, pricing, organization, promotion, management and other pertinent factors of retail operations.

26 ADVERTISING 3 Units
(formerly Business 64, Advertising)
Prerequisite: None. (Not open to students who have received credit for Communications Media 60)
54 hours lecture
This course is an introduction to the field of advertising, its history, purpose, institutions, and functions. Studies are made of the various media used in general advertising, as well as the effective use of these media. Students will produce ads and advertising campaigns.

49 SPECIAL STUDIES IN MARKETING 1-3 Units
(See catalog p. 21)

50 SURVEY OF INTERNATIONAL BUSINESS 3 Units
Prerequisite: None.
54 hours lecture
This course is a comprehensive overview of international business designed to provide both beginners and experienced business people with a global perspective on international trade including foreign investments, impact of financial markets, and the operation of multi-national corporations.

51 INTERNATIONAL MARKETING 3 Units
Prerequisite: None.
54 hours lecture
This course presents the problems of marketing in the international marketplace and how marketers approach and solve them. The course focuses on concepts and principles by teaching the theory and practice of international marketing through the use of practical examples and actual case studies of international, both United States and foreign, marketing organizations. Studies include: international marketing position of the United States, market entry strategies, analysis of foreign markets, culture and marketing, product design, pricing, distribution, promotion and sales.

54A BASICS OF EXPORTING 1.5 Units
Prerequisite: None.
27 hours lecture
This course covers the different aspects of exporting and affords the student a working knowledge of the various terms and techniques essential to exporting. Studies include marketing, organization, regulation, terms of access, documentation, shipment and financing involved with international movement of merchandise, trade patterns by countries and commodities.

54B BASICS OF IMPORTING 1.5 Units
Prerequisite: None.
27 hours lecture
This course is an overview of the steps involved in importing a product or service from beginning to end. Course includes an introduction to the United States Customs Service, what customs brokers do, duty rate structure and determination, basic laws affecting imports, currency exchange and letters of credit. Practical advice about storage and transportation of shipments after they have cleared customs will also be shared.

98 WORK EXPERIENCE IN MARKETING 1-4 Units
(See catalog p. 22)
Area of Science, Mathematics & Engineering

Mathematics & Statistics

DEGREE A.A.—Science and Mathematics, General

Mathematics is a multifaceted subject of great beauty and application. The study of mathematics explores some of the deepest puzzles that have ever been encountered and equips the student with a universal language used to study quantities and relationships in all fields. The study of mathematics provides students with the ability to think logically and abstractly and develop the problem-solving and computational skills necessary for success in any field of study.

Career Options
Actuary; Appraiser; Assessor; Auditor; Biometrician; Budget Analyst; Casualty Rater; Controller; Computer Programmer; Demographer; Econometrician; Engineering Analyst; Epidemiologist; Financial Analyst; Investment Analyst; Management Scientist; Mathematician; Operations Researcher; Statistician; Public Opinion Analyst; Surveyor; Systems Analyst; Teacher; Urban Planner

Most of these careers require education beyond the two-year college level.

Highlights
A professional and innovative staff committed to providing the best possible mathematics education, including the use of computers and videos in the teaching of mathematics
A comprehensive mathematics curriculum addressing the needs of both the transfer student and the non-transfer student
A program integrating “hands-on” use of the computer
A math center providing alternative modes of instruction and tutorial support for students
A program that uses assessment for proper placement of students
A Mathematics, Engineering and Science Achievement (MESA) program

DEGREE
A.A.—Science and Mathematics, General
CODE #1230

REQUIRED PROGRAM ............................................................ Units
Twenty (20) units of Science and Mathematics:
Mathematics 53 or a higher level math course
One course in Physical Science*
One course in Biological Science*
Plus courses selected from:
Anthropology (physical), Astronomy, Biology, Chemistry, Engineering, Environmental Technology (1 or 4), Geography (physical), Geology, Mathematics 53 or higher, Physical Science, Physics, and Statistics

* Eligible Physical Science courses:
   Physical Science 1; Physics 4A, 4B, 4C, 5A, 5B, 10;
   Geography 1, 11; Geology 1, 2, 3, 4, 5, 6, 7, 8, 12, 18, 24, 59

* Eligible Biological Science courses:
   Biology 1A, 3, 6, 12, 13, 14, 16, 17, 24, 25, 26, 50, 51

TOTAL UNITS REQUIRED ......................................................... 20

General Education Graduation Requirements - See page 18.
Mathematics

90 hours lecture
Acceptable for credit: CSU, UC—See Counselor

This course is a continuation of Mathematics 9B which extends mathematical patterns and relations, formulate conjectures, techniques of integration; numerical integration; indeterminate forms; hyperbolic functions and inverse hyperbolic functions; and prove their conjectures. Areas of mathematics from coordinate system; graphs and areas in polar coordinates; the concepts and skills necessary to study limits, derivatives, continuity, differentiability and integrals for these new types of functions are developed with an emphasis on the application of the calculus to real-world problems. (CAN MATH 22) (with 9A and 9B, CAN MATH SEQ C)

11 DIFFERENTIAL EQUATIONS 4 Units
Prerequisite: Mathematics 9B with a grade of "C" or better; concurrent enrollment in Mathematics 9C is recommended. Acceptable for credit: CSU, UC

72 hours lecture
This course will cover the theory and the applications of the solutions of ordinary differential equations and systems of ordinary differential equations. The course will introduce students to various topics useful in the solution of differential equations including power series, Laplace transforms, matrices, eigenvalues and eigenvectors, and numerical methods. (CAN MATH 24)

9A ANALYTIC GEOMETRY AND CALCULUS 5 Units
Prerequisite: Mathematics 29 with a grade of "C" or better, or eligibility as determined by the assessment process. Acceptable for credit: CSU, UC—See Counselor

90 hours lecture
This course explores the basic concepts of analytic geometry; limits and continuity; derivatives of algebraic functions and trigonometric functions; applications of differentiation; related rates; minima and maxima; graphing functions; rectilinear motion; differentials; Mean Value Theorem; integration of algebraic functions and trigonometric functions; areas of plane regions; volumes of revolution using the circular disk, circular ring, and cylindrical shell methods; work; arc length; center of mass, and centroids. (CAN MATH 18) (with 9B, CAN MATH SEQ B; with 9B and 9C, CAN MATH SEQ C)

9B ANALYTIC GEOMETRY AND CALCULUS 5 Units
Prerequisite: Mathematics 9A with a grade of "C" or better. Acceptable for credit: CSU, UC—See Counselor

90 hours lecture
This course is a continuation of Math 9A. Topics include: inverse functions; exponential and logarithmic functions with their graphs, derivatives, and integrals; applications of exponential and logarithmic functions; the inverse trigonometric functions with their graphs, derivatives, and integrals; hyperbolic functions and inverse hyperbolic functions; techniques of integration; numerical integration; indeterminate forms; improper integrals; Taylor’s Formula; polar coordinate system; graphs and areas in polar coordinates; conic sections; sequences and series. (CAN MATH 20) (with 9A, CAN MATH SEQ B; with 9A and 9C, CAN MATH SEQ C)

9C ANALYTIC GEOMETRY AND CALCULUS 5 Units
Prerequisite: Mathematics 9B with a grade of "C" or better. Acceptable for credit: CSU, UC—See Counselor

90 hours lecture
This course is a continuation of Mathematics 9B which extends the concepts presented in Pre-Calculus, Math 9A and 9B. The course develops the algebra necessary to understand, graph and apply vector functions and functions of more than one variable. The concepts and skills necessary to study limits, derivatives,
29 PRE-CALCULUS MATHEMATICS 5 Units
Prerequisite: Mathematics 20 with a grade of "C" or better
or eligibility as determined by the assessment process
Acceptable for credit: CSU, UC
90 hours lecture
This course consists of a brief review and further development
of algebra skills and linear, quadratic, polynomial, rational,
exponential, and logarithmic functions. A thorough develop-
ment of the trigonometric functions will be considered includ-
ing graphing techniques, real world applications, inverse trig
functions, vectors and their applications, polar coordinates, and
rotation of axes. The algebra and applications of matrices to
solve systems, parametric equations, the binomial theorem and
finite and infinite sequences and series will also be considered.
(CAN MATH 16)

35 INTRODUCTION TO LINEAR ALGEBRA 3 Units
Prerequisite: Mathematics 9B with a grade of "C" or better
Acceptable for credit: CSU, UC
54 hours lecture
This course covers matrices, determinants, vectors, the solution
of systems of equations, the algebra of vector spaces and linear
transformation, and eigenvalues and eigenvectors. Applications
from the fields of science, computer science, engineering
economics and mathematics are studied. (CAN MATH 26)

42 FINITE MATH 3 Units
Prerequisite: Mathematics 53 with a grade of "C" or better,
or eligibility as determined by the assessment process.
Acceptable for credit: CSU, UC
54 hours lecture, 18 hours laboratory
Topics covered in this course include set theory, matrix
algebra, simplex method of linear programming, Markov
process, game theory, mathematics of finance including
present value and annuities, and probability and statistics
with application in the field of business, social science and
biological sciences. (CAN MATH 12)

43 CALCULUS FOR BUSINESS & ECONOMICS 4 Units
Prerequisite: Mathematics 53 or Mathematics 54 with a
grade of "C" or better, or eligibility as determined by the
assessment process.
Acceptable for credit: CSU, UC—See Counselor
72 hours lecture
This course offers an introduction to the concepts and
applications of the differential and integral calculus. This course is intended
for business students; it is not recommended for mathematics
or physical science majors. (CAN MATH 14)

44 MODERN BUSINESS MATHEMATICS 4 Units
Prerequisite: Mathematics 53 or Mathematics 54 with a
grade of "C" or better, or placement as determined by the
assessment process.
72 hours lecture
This course is designed around applications of mathematics in
an economic and business context. The major topics in-
cluded are function, finance (interest and exponential
models), rates of change, optimization, and linear program-
ing. The content of the course is structured to incorporate
tables, graphs and data sets collected from real-world
situations. This course is not recommended for mathematics
or physical science majors.

46 TEACHER AIDE 1-4 Units
Prerequisite: Mathematics 53 with grade of "B" or better,
or concurrent enrollment in Math 53 with permission of
instructor
Acceptable for credit: CSU
9 hours lecture and 27 hours in-class tutoring equals one
unit of credit
This course is designed for students who want to develop an in-
depth understanding of the fundamentals of mathematics and to
learn to work with individual students and small groups of
students. Open entry and exit. May be taken two times for
credit. Maximum units to be earned is six.

49 SPECIAL STUDIES IN MATHEMATICS 1-3 Units
(See page 21)
Acceptable for credit: CSU, UC

51 ELEMENTARY ALGEBRA 5 Units
Prerequisite: Mathematics 210 with a grade of "C" or better,
or eligibility as determined by the assessment process. (Math
71 recommended for students who feel they need additional
coursework before taking Math 51).
90 hours lecture
This course emphasizes the fundamental concepts and opera-
tions of algebra with problem solving and critical thinking skills
incorporated throughout. Topics include: set theory; properties
of real numbers; solving linear equations and inequalities;
properties of exponents; operations on polynomials; factoring
polynomials; operations on rational expressions; ratios and
proportions; rectangular coordinate system; graphing lines;
equations of lines; solving linear systems of equations and
inequalities; roots and radical expressions; operations on
radicals; rational exponents; distance formula; solving quadratic
equations; complex numbers.

MODULES

51A ELEMENTARY ALGEBRA - PART 1 2.5 Units
Prerequisite: Mathematics 210 with a grade of "C" or
better, or eligibility as determined by the assessment process.
45 hours lecture
This course will cover the fundamental concepts and operations
of algebra with problem solving and critical thinking skills in-
corporated throughout. Topics include: review of properties
of real numbers and signed numbers; algebraic expressions; solv-
ing linear equations and inequalities; graphing; properties of
exponents; operations on polynomials; factoring; applications.
51B  ELEMENTARY ALGEBRA - PART II  2.5 Units
Prerequisite: Math 51A with a grade of "C" or better, or eligibility as determined by the assessment process. (Math 71 recommended for students who feel they need additional course work before taking Math 51B.)
45 hours lecture
A continuation of Math 51A, this course will cover the fundamental concepts and operations of algebra with problem solving and critical thinking skills incorporated throughout. Topics covered include: review of factoring and solving equations; operations on rational expressions and solving rational equations; rectangular coordinate system; graphing lines and linear inequalities; equation of lines; solving linear systems of equations; roots and radical expressions; the distance formula; solving quadratic equations; complex numbers; continued development in problem solving and applications.

52  ELEMENTARY GEOMETRY  3 Units
Prerequisite: Mathematics 51 with a grade of "C" or better, or eligibility as determined by the assessment process.
54 hours lecture
Mathematics 52 is a course in Euclidean Geometry with an emphasis on applications.

53  INTERMEDIATE ALGEBRA  5 Units
Prerequisite: Mathematics 51 or 51B with a grade of "C" or better, or eligibility as determined by the assessment process.
90 hours lecture
This course is a thorough review of basic algebra which extends familiar concepts as well as introducing new concepts while incorporating problem solving and critical thinking skills throughout. Topics which are reviewed and extended include: solving linear and quadratic equations, factoring polynomials, rational expressions, exponents and radicals, equations of lines, and systems of equations. New topics include: introduction to functions, domain, range, notation; parent graphs and their translations and reflections; extension to graphing quadratic and polynomial functions; system of equations especially 3X3 linear and 2X2 nonlinear; modeling; solving quadratic inequalities; exponential and logarithmic functions and their graphs; basic exponential and logarithmic equations; graphs of circles; arithmetic and geometric sequences; summation notation and basic probability.

54  INTERMEDIATE ALGEBRA WITH APPLICATIONS  4 Units
Prerequisite: Mathematics 51 or 51B with a grade of "C" or better, or eligibility as determined by the assessment process.
72 hours lecture
This course is designed for the intermediate algebra student who plans to continue into Statistics 1, Math 2, or Math 44 (Mathematical Discovery). The course topics include linear behavior, functions and graphs, exponential and logarithmic functions, systems, and polynomial, rational, exponential, logarithmic and radical expressions and equations. This course will feature discovery activities and applications to real data sets and problems which are current and relevant. This course does not fulfill the prerequisite for Math 20.

71  BASIC ALGEBRA WITH APPLICATIONS  5 Units
Prerequisite: Mathematics 210 with a grade of "C" or better, or eligibility as determined by the assessment process.
90 hours lecture
This course develops and applies the concepts of beginning algebra in a variety of fields appropriate to an associate degree student including (but not limited to) business, construction, electronics, environmental design and medical assisting. This course is designed to fulfill the math proficiency requirement for the non-transfer associate degree student and does not fulfill the prerequisite for Math 53.

81  MATHEMATICS FOR TECHNICAL FIELDS  3 Units
Prerequisite: Mathematics 210 with a grade of "C" or better, or eligibility as determined by the assessment process.
54 hours lecture
This course develops basic concepts of algebra and geometry with emphasis on mathematical problem solving. Applications to technical fields will be used to motivate the study of mathematics. Technical applications will include (but are not limited to) electronics, auto mechanics, construction, landscaping, photography, fire science, welding and drafting. This course fulfills the AA/AS general education requirement for communication and analytical thinking; it does not fulfill the mathematics competency requirement, nor does it fulfill the prerequisite for Mathematics 53.

200  ARITHMETIC  5 Units
Prerequisite: None. (Not open to students who have received a grade of "C" or better in Math 201).
90 hours lecture
This course provides group and individual instruction in the fundamentals of arithmetic with emphasis on computational skills. Topics to be studied will include whole numbers, fractions, decimals, percents, ratios, proportions, problem solving, and applications.

MODULES

200A  ARITHMETIC - PART I  2.5 Units
Prerequisite: None.
45 hours lecture
This course will present the fundamentals of arithmetic with emphasis on computational skills. Topics to be studied will include whole numbers, order of operations, primes, multiples, fractions, problem solving, and applications.

200B  ARITHMETIC - PART II  2.5 Units
Prerequisite: Mathematics 200A or placement by the assessment process.
45 hours lecture
This course will present the fundamentals of arithmetic with emphasis on computational skills. Topics to be studied will include decimals, percents, ratios, proportions, problem solving, and applications.
INDIVIDUALIZED ARITHMETIC 1-4 Units

Prerequisite: None. (Not open to students who have received a grade of "C" or better in Mathematics 200).
54 hours lecture, 54 hours laboratory
Individualized instruction in the fundamentals of arithmetic with emphasis on computational skills. Topics for Module A include whole numbers and factoring. Module B covers fractions and decimals. Module C topics are percents, ratios, and proportions. Students are placed in appropriate module based on diagnostic testing and proceed at their own pace. This course may be substituted for Math 200 as a prerequisite for other courses. (Course may be repeated four times for a maximum of 4 units, with no repetition of material for which previous units have been earned).

PRE-ALGEBRA MATHEMATICS 5 Units

Prerequisite: Mathematics 200 or 200B with a grade of "C" or better, or qualifying through the assessment process.
90 hours lecture
This course in pre-algebra mathematics emphasizes fundamental operations on integers and decimals as well as in geometric figures, measurement, and algebra. Topics include: fractions; decimals; signed numbers; properties of exponents; scientific notation; conversions; metric system; square and cube roots; formula evaluation; solving equations; ratios; proportions; algebraic manipulations; descriptive statistics; rectangular coordinate system; elementary calculator use.

ACADEMIC SKILLS IN MATHEMATICS .5- 2 Units

Prerequisite: None.
27 - 108 hours laboratory
This course is designed for students concurrently enrolled in Math 200, Math 210, Math 51, Math 71, or Math 53; placement can be made through student request, instructor recommendation, or an assessment process. This laboratory course provides assistance in math skills to students enrolled in a non-transferable mathematics course. Students may enter the course at any time during the first 12 weeks of the semester and earn .5 to 2 units. Students may take the course up to four times for credit, earning a maximum of eight units. This course is graded on a credit/no-credit basis. Math 267A is recommended for students who are encountering difficulties in the areas of math anxiety, basic skills, algebraic concepts or manipulation, graphing, problem solving, etc.

ACADEMIC SKILLS IN MATHEMATICS .5- 2 Units

Prerequisite: None.
27 - 108 hours laboratory
This course is designed for students concurrently enrolled in Math 2, Math 20, Math 29, Math 9A, Math 9B, Math 9C, Math 11, Math 35, or Statistics 1. This laboratory course provides assistance in math skills to students enrolled in a transferable mathematics or statistics course. Students may enter the course at any time during the first 12 weeks of the semester and earn .5 to 2 units. Students may take the course up to four times for credit, earning a maximum of eight units. This course is graded on a credit/no-credit basis. Math 267B is recommended for students who are encountering difficulties in the areas of math anxiety, basic skills, algebraic concepts or manipulations, graphing, statistics, problem solving, etc.

INTRODUCTION TO PROBABILITY AND STATISTICS 4 Units

Prerequisite: Mathematics 53 or Mathematics 54 with a grade of "C" or better, or eligibility as determined by the assessment process.
72 hours lecture
The course covers descriptive statistics, probability, random variables and probability distributions, estimation of parameters, hypothesis testing, chi squared tests, linear correlation and regression, ANOVA, and non-parameter statistics. Applications are made to business, social science and life science. (CAN STAT 2)

SPECIAL STUDIES IN STATISTICS 1-3 Units

(See catalog p. 21)
Acceptable for credit: CSU, UC

See next page for Mathematics Tree
INDEPENDENT STUDY OPPORTUNITIES

Math 46 "Teacher Aide"
This course is designed to develop an in-depth understanding of math and learn to work with individual students and small groups of students. See page 217.

Math 267A/B "Academic Skills in Math"
This lab course provides assistance in math skills to students enrolled in a mathematics course. See page 219.

Math 268 "Self Study Math Modules"
The course enables students to review specific math topics which are necessary for success in Math 200, 210, 71, 51 or any course requiring the skills taught in these classes. See page 219.

TRANSFER INFORMATION
= Non-Degree Applicable and Non-transferable
= Associate Degree Applicable, Non-transferable
= Transferable to UC and CSU systems
* = Transferable to CSU system only
Area of Careers & Technology

Medical Assistant

DEGREE
A.A.—Medical Assisting

CERTIFICATES
Medical Assisting
Administrative
Clinical
Medical Transcription

Designed to train students for careers as medical assistants in private, state and federal medical offices. Upon completion of an A.A. or Certificate in Medical Assisting, students may take the certification exam administered by the National Board of Medical Examiners. Transfer opportunities are available for bachelor’s degrees in Health Services or Health Care Administration. Check the catalog requirements for the university to which transfer is intended. Call the Health Careers Information Hotline, 691-7313, for an information packet.

Career Options
Administrative Medical Assistant; Clinical Medical Assistant; Insurance Billing Specialist; Medical Transcriptionist

Highlights
Training in a field rated as the nation’s second most employable career, expected to grow 90 percent by the year 2000

Eligibility to become members of AAMA and CMAA

DEGREE
A.A.—Medical Assisting

CODE #1184

REQUIRED PROGRAM

AH 54 Medical Language for Healthcare Providers .......................... 3
AH 63 Human Disease ............................................................. 3
AH 64 Basic ICD Coding .......................................................... 2
AH 68 Medical Transcription ...................................................... 1
AH 70 Allied Health Practicum .................................................. 3
BIO 50 Basic Anatomy & Physiology ......................................... 4
BIO 51 Basic Anatomy & Physiology ......................................... 4
BLS 50 Business English ............................................................ 3
CIS 1 Computer Familiarization .................................................. 1
HE 14 CPR: BLS for the Professional Rescuer .............................. 1
MA 50 Intro to Health Care Procedures ..................................... 4
MA 63 Clinical Procedures I ...................................................... 1.25
MA 64 Clinical Procedures II ..................................................... 3
MA 65 Clinical Procedures III .................................................... 2.75
MA 67 Medical Insurance Procedures ........................................ 2
MA 68 Computer Appl. For the Medical Office ......................... 1
MA 69 Medical Office Administration ........................................... 2
MA 70A Medical Assisting Directed Practice I ............................. 1
MA 70B Medical Assisting Directed Practice II ........................... 1
MA 70C Medical Assisting Directed Practice III ........................... 1
PSYCH 1 General Principles or PSYCH 7 Human Behavior or
PSYCH 40 Principles of Interpersonal Relations .......................... 3

TOTAL UNITS REQUIRED ........................................................... 47

Suggested Elective: Health Education 10

General Education Graduation Requirements - See page 18.

Requirements For Admission:
1. Graduation from an accredited high school or passage of a standard equivalency test.
2. A recommended background in social and biological or natural sciences.
3. Eligibility for English 57.
Requirements for progression to the second year:

1. Keyboarding skills proficiency of a minimum of 30 words a minute (WAM).
2. A minimum grade point average of 2.0 in college courses completed to date.
3. Evidence of good physical and mental health and current immunizations required by clinical.

In addition to the expenses as regularly-enrolled students (living costs, activity fees and books), medical assisting students must supply the costs of uniforms and transportation to the campus and extended campus laboratory. The medical assisting program is a concentrated one. In order to insure academic success and to protect students' health, outside work to supplement living and school costs is discouraged.

CERTIFICATE
Medical Assisting
CODE #1184

This certificate fulfills the basic requirements to allow students to take the National Certification Examination for Medical Assistants.

REQUIRED PROGRAM ............................................................... Units
AH 54 Medical Language for Healthcare Providers .................. 3
AH 63 Human Disease ......................................................... 3
AH 64 Basic ICD Coding ....................................................... 2
AH 68 Medical Transcription ............................................... 1
AH 70 Allied Health Practicum ............................................ 3
BIO 50 Basic Anatomy & Physiology .................................. 4
BIO 51 Basic Anatomy & Physiology .................................. 4
BUS 50 Business English ................................................... 3
CIS 1 Computer Familiarization ........................................... 1
HE 14 CPR: BLS for the Professional Rescuer ...................... 1
MA 50 Intro to Health Care Procedures .............................. 4
MA 63 Clinical Procedures I ............................................ 1.25
MA 64 Clinical Procedures II .......................................... 3
MA 65 Clinical Procedures III ......................................... 2.75
MA 67 Medical Insurance Procedures .............................. 2
MA 68 Computer Appl. For the Medical Office ................... 1
MA 69 Medical Office Administration ............................ 2
MA 70A Medical Assisting Directed Practice I ................... 1
MA 70B Medical Assisting Directed Practice II .................. 1
MA 70C Medical Assisting Directed Practice III ................. 1
PSYCH 7 General Principles or
PSYCH 40 Principles of Interpersonal Relations .................. 3

TOTAL UNITS REQUIRED .................................................. 47

General Education Graduation Requirements - See page 18.

CERTIFICATE
Medical Assisting, Administrative
CODE #1185

This curriculum is designed to prepare the individual with office management skills for employment in a physician's office, hospitals, clinics, laboratories, pharmaceutical companies, health and accident insurance companies, and to teach related duties essential to medical assisting. High school graduation or equivalent is required.

REQUIRED PROGRAM ............................................................... Units
AH 54 Medical Language for Healthcare Providers .................. 3
AH 63 Human Disease ......................................................... 3
AH 64 Basic ICD Coding ....................................................... 2
AH 68 Medical Transcription ............................................... 1
AH 70 Allied Health Practicum ............................................ 3
BIO 50 Basic Anatomy & Physiology .................................. 4
BIO 51 Basic Anatomy & Physiology .................................. 4
BUS 50 Business English ................................................... 3
CIS 1 Computer Familiarization ........................................... 1
MA 50 Intro to Health Care Procedures .............................. 4
MA 67 Medical Insurance Procedures .............................. 2
MA 68 Computer Appl. For the Medical Office ................... 1
MA 69 Medical Office Administration ............................ 2

TOTAL UNITS REQUIRED ................................................ 33

Additional Requirements: Typing proficiency at a minimum of 45 net WAM. Eligibility for English 57 as evidenced by assessment test or completion of college courses.

CERTIFICATE
Medical Assisting, Clinical
CODE #1186

This curriculum is designed to prepare the individual with entry-level skills for assisting with patient care in a physician's office or clinic. High school graduation or equivalent is required.

REQUIRED PROGRAM ............................................................... Units
AH 54 Medical Language for Healthcare Providers .................. 3
AH 63 Human Disease ......................................................... 3
AH 70 Allied Health Practicum ............................................ 3
BIO 50 Basic Anatomy & Physiology .................................. 4
BIO 51 Basic Anatomy & Physiology .................................. 4
BUS 50 Business English ................................................... 3
CIS 1 Computer Familiarization ........................................... 1
HE 14 CPR: BLS for the Professional Rescuer ...................... 1
MA 50 Intro to Health Care Procedures .............................. 4
MA 63 Clinical Procedures I ............................................ 1.25
MA 64 Clinical Procedures II .......................................... 3
MA 65 Clinical Procedures III ......................................... 2.75
MA 68 Computer Appl. For the Medical Office ................... 1
MA 69 Medical Office Administration ............................ 2
MA 70C Medical Assisting Directed Practice III ................. 1
PSYCH 7 General Principles or
PSYCH 40 Principles of Interpersonal Relations .................. 3

TOTAL UNITS REQUIRED ................................................ 40
This one-year certificate option is intended for those students who wish to enter the job market as medical transcriptionists.

**REQUIRED PROGRAM** ............................................................. Units

- AH 54 Medical Language for Healthcare Providers  .................... 3
- AH 63 Human Disease ............................................................... 3
- AH 64 Basic ICD Coding ........................................................... 2
- AH 68 Medical Transcription ..................................................... 6
- BIO 50 Basic Anatomy & Physiology ............................................ 4
- BIO 51 Basic Anatomy & Physiology ............................................ 4
- BUS 42 Keyboard Formatting .................................................... 1.5
- BUS 50 Business English .............................................................. 3
- CIS 11A Beginning Wordprocessing ............................................. 1
- CIS 11B Intermediate Wordprocessing ................................ ......... 1
- AH 70 Allied Health Practicum .................................................. 3

**TOTAL UNITS REQUIRED** ................................ ......................... 31.5

(Grades of “C” or better required for all Allied Health and Medical Assisting courses.)

Suggested Electives:
- Medical Assisting 98 or Computer Information Science 12A

**NOTE:** Additional experience beyond the minimum required for a certificate may be needed in transcription and word processing to reach levels of competence required for taking the examination to become a certified medical transcriptionist.

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**Medical Assisting**

49 SPECIAL STUDIES IN MEDICAL ASSISTING

(See catalog p. 21)

50 INTRODUCTION TO HEALTH CARE PROCEDURES

Prerequisite: None.

18 hours lecture

History of medicine; careers in Allied Health; usage of reference materials in college and medical libraries; introduction to theory and application of entry-level skills for health clerical functions; medical office bookkeeping and the pegboard system; telephone procedures; scheduling appointments; basic rules of filing and records management.

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**M O D U L E S**

50A INTRODUCTION TO HEALTH CARE PROCEDURES: INTRODUCTION TO HEALTH CARE

Prerequisite: None.

18 hours lecture

This course is an orientation to career opportunities and professional organizations. It also includes an orientation to federal regulations for standard precautions (OSHA). Additional topics include professional, communication behaviors, and conflict resolution. Health care delivery systems, medical specialties, as well as ethics and legal aspects of health care, are also addressed.

50B INTRODUCTION TO HEALTH CARE PROCEDURES: BASIC MEDICAL OFFICE PROCEDURES

Prerequisite: Medical Assisting 50A or related experience within previous two years.

Corequisites: Business 50, Allied Health 54.

18 hours lecture

This course is an introduction to theory and application of entry-level skills for health clerical functions, including reception duties, scheduling manual and computer generated appointments, and alphanumeric and terminal digit filing systems.

50C INTRODUCTION TO HEALTH CARE PROCEDURES: TELEPHONE AND ELECTRONIC COMMUNICATION IN THE HEALTH CARE INDUSTRY

Prerequisite: None.

Advisory: Medical Assisting 50A and 50B; Business 50; and CIS 1.

18 hours lecture

This module includes communicating effectively, using appropriate medical terminology, as well as using correct verbal and written communication. In addition, the proper use of multi-line phones, mail processing, and telecommunication for the health care setting are covered.

50D INTRODUCTION TO HEALTH CARE PROCEDURES: PEGBOARD BOOKKEEPING FOR THE MEDICAL OFFICE

Prerequisite: None.

Advisory: Medical Assisting 50A and 50B.

18 hours lecture

This module will introduce the student to “write-it-once” pegboard bookkeeping systems as used in medical offices. The student will post charges and payments from a Superbill and an EOB. For those offices that are computerized, the pegboard provides a theoretical basis for medical accounting procedures. The student will assume the role of a medical office assistant in a “real” physician’s office setting.
63 CLINICAL PROCEDURES I 1.25 Units
(formerly Medical Assisting 64, Clinical Techniques)
Prerequisite: Allied Health 54.
Pre- or Corequisite: Biology 50 or 51.
12.5 hours lecture, 30 hours laboratory
This course includes the following topics: Standard precautions as mandated by the Occupational Safety and Health Administration (OSHA); principles of medical asepsis including hand washing, preparation of the pediatric and adult patient for routine examinations. Patient preparation including taking vital signs, measuring height and weight, obtaining a brief history and documenting the data in the medical chart, and tray/instrument setups for pap smear and sigmoidoscopy procedures will be covered.

63A CLINICAL PROCEDURES I: .25 Unit
UNIVERSAL PRECAUTIONS / INFECTION CONTROL
(formerly Medical Assisting 64A, Clinical Procedures: Universal Precautions/Infection Control)
Prerequisite: None.
2.5 hours lecture, 6 hours laboratory
Universal precautions, as mandated by the Occupational Safety and Health Administration (OSHA), will be covered in this module. The principles and practices addressing the OSHA guidelines will be discussed and demonstrated.

63B CLINICAL PROCEDURES I: .5 Unit
PHYSICAL EXAMINATION PROTOCOLS: VITAL SIGNS, HEIGHT & WEIGHT
(formerly MA 64B, Clinical Procedures: Physical Examination Protocols, Vital Signs, Height & Weight)
Prerequisite: Allied Health 54, Medical Assisting 63A.
Pre or Corequisite: Biology 50 or 51.
5 hours lecture, 12 hours laboratory
This course includes preparing the adult and pediatric patient for a complete physical examination. Patient preparation includes: taking vital signs, measuring height and weight, and obtaining a brief history and documenting the data in the patient’s medical chart.

63C CLINICAL PROCEDURES I: .5 Unit
TRAY SET-UPS AND ASSISTING WITH SPECIALTY EXAMS
(formerly MA 64C, Clinical Procedures: Tray Set-Ups and Assisting with Specialty Exams)
Prerequisite: Allied Health 54, Medical Assisting 63A.
Pre or Corequisite: Biology 50 or 51; MA 50A, 50B, 50C.
5 hours lecture, 12 hours laboratory
This course will focus on doing the tray setups and preparing the health care client for the following specialty examinations: pelvic exam and pap smear, colposcopy, sigmoidoscopy, and ligature hemorrhoidectomy.

64 CLINICAL PROCEDURES II: 3 Units
(formerly MA 64D-)
Prerequisite: Allied Health 54, Medical Assisting 63.
29 hours lecture, 72 hours laboratory
This course includes the following topics: standard precautions, medical and surgical asepsis, sterilization procedures; minor surgical set-ups, knowledge of care and use of instruments; care and ordering of clinical supplies and equipment; electrocardiography; nutrition; suture removal, wound care, application of dressings and various types of bandages; auditory screening; spirometry and breathing treatments, intramuscular, subcutaneous and intradermal injection techniques.

MODULES

64A CLINICAL PROCEDURES II: .5 Unit
STERILIZATION AND DISINFECTION
(formerly MA 64D, Clinical Procedures: Sterilization and Disinfection)
Prerequisite: Allied Health 54, Medical Assisting 63A.
5 hours lecture, 12 hours laboratory
This course will introduce the student to the principles and practices of sterile techniques. The student will sanitize, disinfect and sterilize instruments and setups for sterile procedures. The student will learn the names, uses and care of instruments used for the most common procedures.

64B CLINICAL PROCEDURES II: .5 Unit
BASIC OFFICE SURGERY
(formerly MA 64E, Clinical Procedures: Basic Office Surgery)
Prerequisite: Allied Health 54, Med Assisting 63A and 64A.
5 hours lecture, 12 hours laboratory
This course is designed to build upon previous knowledge and skills using sterile techniques. The course includes a brief review of medical and surgical asepsis and handling sterile supplies. Putting on sterile gloves and preparing a sterile field, with emphasis on the various instruments needed for the most common surgical procedures will be covered.

64C CLINICAL PROCEDURES II: .25 Unit
SUTURE REMOVAL, WOUND CARE, DRESSINGS AND BANDAGING
(formerly MA 64F, Clinical Procedures: Suture Removal, Wound Care, Dressing and Bandaging)
Prerequisite: Allied Health 54, Medical Assisting 63A and 63B.
Pre or Corequisite: Biology 50 or 51
2.5 hours lecture, 6 hours laboratory
This modularized course is designed to build on previous training and knowledge in patient care. This course includes a brief review of surgical asepsis, then covers the types of suture material, various suturing techniques and suture removal. Instruction in wound care and techniques in applying dressings and bandages will also be covered.
64D CLINICAL PROCEDURES II: .5 Unit
EAR TREATMENTS,
AUDITORY SCREENING,
SPIROMETRY AND BREATHING TREATMENTS
(formerly MA 64G, Clinical Procedures:
Ear Treatments, Auditory Screening, Spirometry
and Breathing Treatments)
Prerequisite: Allied Health 54, Medical Assisting 63A.
Pre or Corequisite: Biology 50 or 51.
5 hours lecture, 12 hours laboratory
This module will review the anatomy of the ear and procedures
for screening hearing ability using an audiometer. In addition, irrigating the external auditory canal and assisting
the client with breathing treatments, as specified in the
Scope of Practice for Medical Assistants, will be addressed.

64E CLINICAL PROCEDURES II: .5 Unit
ELECTROCARDIOGRAPHY
(formerly MA 64H, Clinical Procedures:
Electrocardiography)
Prerequisite: Allied Health 54, Medical Assisting 63A.
Pre or Corequisite: Biology 50 or 51.
2.5 hours lecture, 18 hours laboratory
This module will review basic anatomy and physiology of the
heart, cardiac cycle, and the conduction system. The student
will have practical experience on single and multi-channel
electrocardiographs.

64F CLINICAL PROCEDURES II: .25 Unit
NUTRITION AND
THERAPEUTIC DIETS
(formerly MA 64 I, Clinical Procedures:
Nutrition and Therapeutic Diets)
Prerequisite: None.
4 hours lecture.
This module will cover therapeutic diets, the food pyramid,
daily nutrient requirement, and diet modification to meet the
health care client’s needs.

64G CLINICAL PROCEDURES II: .5 Unit
INJECTIONS
(formerly MA 64J Clinical
Procedures: Injections)
Prerequisite: Allied Health 54; Medical Assisting 63A.
Pre or Corequisite: Biology 50 or 51.
5 hours lecture, 12 hours laboratory
This course will cover intramuscular, subcutaneous and
intradermal injection techniques. The course includes the
selection of syringes and needles to administer injectable
medications. Identification of the injection sites for intra-
 muscular, subcutaneous, and intradermal injections are
covered. The student will be able to demonstrate compe-
tence through demonstration of technique, observing all
aseptic and safety precautions in accordance with the
guidelines mandated by the Occupational Safety and Health
Administration.

65 ADVANCED 2.75 Units
CLINICAL PROCEDURES III
(formerly Advanced Clinical Procedures)
Prerequisite: Allied Health 54 with a grade of “C” or better;
Medical Assisting 63 or 63A with a grade of “C” or better.
40 hours lecture, 29 hours laboratory
This course covers an introduction to the following: phle-
botomy, clinical laboratory procedures, pharmacology,
diagnostic and therapeutic procedures, and medical office
emergencies.

MODULES

65A PHLEBOTOMY & INTRODUCTION 1 Unit
TO CLINICAL
LABORATORY PROCEDURES
Prerequisite: Allied Health 54 with a grade of “C” or better;
Medical Assisting 64 or 64A with a grade of “C” or better
Pre or Corequisite: Biology 50 or 51
9 hours lecture, 27 hours laboratory
This module will review the anatomy and physiology of the
cardiovascular and urinary systems to be proficient in
obtaining, handling and examining specimens for hemato-
logical and urinary examinations as specified in the Scope of
Practice for Medical Assistants.

65B INTRODUCTION TO 1 Unit
PHARMACOLOGY
Prerequisite: Allied Health 54 with a grade of “C” or better
18 hours lecture
This module covers drug therapy and the role of the medical
assistant, pharmacology references, drug classifications,
familiarization of the top 50 prescribed medications in the
United States, variables affecting drug action, dosage
calculations, abbreviations, systems of measurements, drug
forms and routes of administration, and the laws regarding
controlled substances.

65C INTRODUCTION TO DIAGNOSTIC .25 Units
& THERAPEUTIC PROCEDURES
Prerequisite: Allied Health 54 with a grade of “C” or better;
Biology 50 or 51
4 hours lecture, 2 hours laboratory
This module will cover the various physical therapy modal-
ities used for treating the common pathophysiological
conditions. Instruction will include measuring a client for
walking aids, demonstrating the various crutch walking gats,
and demonstrating the principles of proper body mechanics
in transferring a client to and from the examination table.
Instruction also includes patient preparation for diagnostic
radiological procedures and state regulations regarding x-ray
equipment and safety issues.
65D MEDICAL OFFICE EMERGENCIES .5 Unit
Prerequisite: Allied Health 54 with a grade of "C" or better; Biology 50 or 51; Health Education 14 or attainment of the CPR Certification at the Professional Responder Level
9 hours lecture
This module will cover the types of emergency situations that may occur inside or outside of the clinical setting. This includes recognition and appropriate response to situations requiring immediate care. Demonstration and instruction in the care, handling, and use of oxygen.

67 MEDICAL INSURANCE PROCEDURES 2 Units
Prerequisite: Allied Health 54 with a grade of "C" or better 36 hours lecture
Introduction to health insurance, coding for professional services using CPT, ICD-9-CM and CSN classification systems.

68 COMPUTER APPLICATIONS 1 Unit FOR THE MEDICAL OFFICE
Prerequisites: Computer Information Science 1; and Medical Assisting 50.
9 hours lecture and 27 hours laboratory
The course is designed to introduce the student to computer applications in the ambulatory health care setting. Emphasis is placed on building a patient database which can be used to maintain information necessary for billing, for patient contact, to monitor office operations and efficiency, and to generate end-of-period reports.

69 MEDICAL OFFICE ADMINISTRATION 2 Units
Prerequisites: Completion of Medical Assisting 68 with a "C" or better and enrollment in the Medical Assisting Program.
36 hours lecture
Administrative planning, management, supervision, and training of employees; state and federal laws and regulations including income and payroll taxes; principles of credit and collections, selection of collection agencies; procedure manual; personnel contracts and agreements.

70B MEDICAL ASSISTING 1 Unit
DIRECTED PRACTICE II
Prerequisite: MA 50, MA 63, and MA 70A. Completion of or concurrent enrollment in MA 64, MA 67, and MA 68. 54 hours laboratory
Practical experience, under supervision, in a physician’s office or clinic performing actual tasks and responsibilities to include: vital signs, rooming clients, take pertinent history and document findings; prepare non-sterile setups and assist provider as needed.

70C MEDICAL ASSISTING 1 Unit
DIRECTED PRACTICE III
Prerequisite: MA 70A, and MA 70B. Completion of or concurrent enrollment in MA 63, MA 64, and MA 65. 54 hours laboratory
This course consists of supervised experience in a health care setting performing the tasks and responsibilities as learned in the prerequisite and concurrent classes for this directed practice experience. The student will prepare the client and treatment room for medical and surgical procedures, and assist the providers as needed. Twenty-five hours of this directed practice will be assigned to the clinical laboratory for the student to practice phlebotomy skills to qualify for the Phlebotomy Certificate as in accordance with Section 1034 of the California Administrative Code and Section 1246 of the Business and Professions Code. (The student will be expected to spend eight hour days during the phlebotomy experience.)

98 WORK EXPERIENCE IN MEDICAL ASSISTING 1-4 Units
(See catalog p.22)
Area of Careers & Technology

**Medical Technology**

**EMERGENCY MEDICAL TECHNICIAN**

EMTs are the backbone of the Emergency Medical Services (EMS) system throughout the nation, helping to reduce injury severity and death at the scene of an accident or sudden illness and during transportation to a medical facility.

CRC's Medical Technology 50 course is designed to provide the student with the skills and knowledge to apply for certification as an Emergency Medical Technician (1) and is approved by the Sacramento County Health Department, Division of Emergency Medical Services, the certifying agency for Sacramento County. This certification is mandatory for all personnel who wish to pursue a career working on an ambulance. EMT(1) certification is also a pre-employment requirement for many fire departments. Together with varying levels of actual on-the-job experience, it is often required for admission to Paramedic training programs throughout the state.

CRC's EMT students will gain actual experience by spending eight hours off-campus in operating ambulance units and an additional eight hours in a hospital emergency department.

Career Options
- EMT(1); Fire Service
- (With additional training): Ambulance Technician; Firefighter; Rescue Worker; Paramedic; Emergency Medical Dispatcher

Highlights
- Hands-on experience provided in administering proper emergency medical care
- Recertification
- Preparation for the EMT(1) Certificate
- Hospital Emergency Room observation time and opportunities to “ride along” in ambulances
Medical Technology

13 HEALTH & SAFETY IN CHILD CARE SETTINGS 1 Unit
Prerequisite: None.
This course covers health and safety issues in child care centers and family day care homes. It includes pediatric cardiopulmonary resuscitation, pediatric first aid, and preventative health practices. To receive American Red Cross certifications, students must successfully demonstrate competency.

M O D U L E S

13A HEALTH & SAFETY IN CHILD CARE SETTINGS .5 Unit
Prerequisite: None.
8 hours lecture
This module covers health and safety issues in child care settings and family day care homes. Course content includes injury prevention, preventative health care practices such as control of infectious diseases, nutrition issues, sanitation, emergency preparedness and evacuation. This course has no renewal requirement.

13B PEDIATRIC CPR .25 Unit
(formerly Injury Prevention and Pediatric CPR)
Prerequisite: None.
6 hours lecture
This module covers pediatric cardiopulmonary resuscitation (CPR). Successful students earn CPR certification which must be renewed every year to remain current. This course may be taken four times for credit.

13C PEDIATRIC FIRST AID IN CHILD CARE SETTINGS .25 Unit
Prerequisite: None.
4 hours lecture
This module covers pediatric first aid in child care settings and family day care homes. Successful students earn Pediatric First Aid certification which must be renewed every two years to remain current (effective as of 9/1/99). This course may be taken four times for credit.

49 SPECIAL STUDIES IN MEDICAL TECHNOLOGY 1-3 Units
(See catalog p. 21)

50 BASIC EMERGENCY MEDICAL CARE 5 Units
Prerequisite:
(1) Hold a current course completion certificate for a professional-level CPR course (American Heart Association Provider C, American Red Cross BLS for the Professional, or equivalent issued by a recognized training agency) which meets the "Standards for Cardiopulmonary Resuscitation for Professional Rescuers" developed by the American Heart Association. CPR card must be valid through the end of the semester in which the student is enrolled in Medical Technology 50.
(2) Hold a current course completion certificate for a Standard First Aid course.
72 hours lecture, 72 hours laboratory
This course is designed to instruct a student to the level of Emergency Medical Technician-Basic, formerly the EMT-Ambulance, who serves as a vital link in the chain of the health care team. It is recognized that a portion of prehospital emergency medical care is provided by the EMT-Basic. This includes all skills necessary for the individual to provide emergency medical care at a basic life support level with an ambulance service, fire service, or other specialized service. Enrollees will also be required to spend ten hours off campus in a hospital emergency room and/or in an operational ambulance. The course is conducted in strict compliance with Title 22, Division 9, Chapter 2, of the California Code of Regulations. Students receiving a "C" grade or higher will be issued a course completion certificate. They may then apply for the certification exam administered by the County of Sacramento and apply for certification as an Emergency Medical Technician 1.

51 EMERGENCY MEDICAL CARE REFRESHER 1 Unit
Prerequisite: Medical Technology 50 or current/prior certification as an EMT-1
24 hours lecture, 4 hours testing
This course is designed to update the techniques and current knowledge of those persons employed in providing emergency care service. This course meets the requirements of Title 22, Division 9, Chapter 2, of the California Code of Regulations. Students receiving a "C" grade or higher will be issued a course completion certificate. This course may be taken four times for credit.
Area of Communication, Visual & Performing Arts

Music

DEGREE  A.A.—Music, General

The CRC music program includes vocal and instrumental components as well as courses on music, history and theory. The two-year program in music is designed to provide students with a foundation in music theory and history, in addition to allowing a choice of instrumental, keyboard, or vocal performance areas in which they may specialize.

Career Options
- Public and Private Teaching;
- Vocal Performance;
- Instrumental Performance;
- Music Store Employment & Management;
- Church Music Direction

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Highlights
- Various avenues for vocal performance—college chorus, choir, chamber singers, contemporary gospel choir
- Various avenues for instrumental performance—college orchestra, jazz ensemble, concert band
- Annual performance tours
- A very talented and highly motivated staff

DEGREE
A.A.—Music, General
CODE #1196

REQUIRED PROGRAM ............................................................. Units
MUFHL 3A Music Theory ....................................................... 4
MUFHL 3B Music Theory ....................................................... 4
MUFHL 4A Advanced Music Theory ....................................... 4
MUFHL 4B Advanced Music Theory ....................................... 4
MUFHL 10 Survey of Music History and Literature .................. 3
MUFHL 11 Survey of Music History and Literature .................. 3
MUIVI 30A Beginning Piano ..................................................... 2
MUIVI 30B Beginning Piano ..................................................... 2

Applied Music Study ............................................................. 8
Eight (8) units from one selected field:
Instrumental Majors: MUIVI 39, 42A, 42B
Keyboard Majors: MUIVI 30A, 30B, 31A, 31B, 32, 39
Voice Majors: MUIVI 22A, 22B, 23A, 23B

Music Performance Group * .................................................... 8
Eight (8) units from one selected field:
Instrumental Major: MUP 13, 14, 18, 19, 21, MUIVI 42A, 42B
Keyboard Major: MUP 14, 16, 18, 19
Voice Major: MUP 18, 19, 21

* NOTE: All music majors are required to enroll in at least one music performance course each semester they are enrolled.

TOTAL UNITS REQUIRED ......................................................... 42

Suggested Electives: Art 10; Humanities 1 or 2; MUFHL 6, MUSM9; any additional music courses; Philosophy 6; Theatre Arts 1, 15A.

General Education Graduation Requirements - See page 18.
Music

Musics Fundamentals/History and Literature (MUFHL)

2 BASIC MUSICIANSHIP 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture
Learning to read and understand (visually, aurally, and kinesthetically) rhythmic, melodic, and harmonic notation, texture and form through keyboard and/or other instruments including voice as a window to music literacy and creativity. Recommended for students with limited musical experience or to those wishing a basic course prior to enrollment in MUFHL 3A.

3A MUSIC THEORY 4 Units
Prerequisites: Ability to read music. Concurrent enrollment in MUIVI 30A.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
Study of scales, intervals, triads, diatonic harmonies, part writing, rhythms, sight singing, ear training, dictation, history and performance. Includes analysis and composition. Required for music majors. Students may wish to challenge the prerequisite on the basis of equivalent experience. (CAN MUS 2) (with 3B, CAN MUSIC SEQ A)

3B MUSIC THEORY 4 Units
Prerequisites: Ability to read music. Concurrent enrollment in MUIVI 30B.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
Study of scales, intervals, triads, diatonic harmonies, part writing, rhythms, sight singing, ear training, dictation, history and performance. Includes analysis and composition. Required for music majors. Students may wish to challenge the prerequisite on the basis of equivalent experience. (CAN MUS 4) (with 3A, CAN MUSIC SEQ A)

4A ADVANCED MUSIC THEORY 4 Units
Prerequisite: MUFHL 3B. MUIVI 31A is recommended to be taken concurrently with MUFHL 4A.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
Continuation of MUFHL 3A, 3B. Includes study of 16th through 18th century counterpoint, fugue, variation, altered chords, sonata allegro and rondo forms, and late 19th and 20th century writing techniques; practice in rhythmic, melodic, harmonic and contrapuntal sight singing, ear training and diction. Required for music majors. Students may wish to challenge the prerequisite on the basis of equivalent experience.

4B ADVANCED MUSIC THEORY 4 Units
Prerequisite: MUFHL 4A. MUIVI 31B is recommended to be taken concurrently with MUFHL 4B.
Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
Continuation of MUFHL 3A, 3B. Includes study of 16th through 18th century counterpoint, fugue, variation, altered chords, sonata allegro and rondo forms, and late 19th and 20th century writing techniques; practice in rhythmic, melodic, harmonic and contrapuntal sight singing, ear training and diction. Required for music majors. Students may wish to challenge the prerequisite on the basis of equivalent experience.

6 INTRODUCTION TO MUSIC 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture
Learning to listen to and understand the music of many historic periods and cultures through the features they share: sound sources, time frame, rhythm and meter, pitch, and structure. Designed for the student with no previous musical study.

8 INTRODUCTION TO MUSIC: ROCK & ROLL 3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
54 hours lecture
This course examines social, political, cultural and economic issues as they relate to the history of rock and roll music. Musical examples will develop listening skills and the ability to critique the music orally and in written form. This course is designed for students with no previous musical study.

9 WORLD MUSIC 3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
54 hours lecture
This course is a comprehensive, comparative listeners' survey of the folk ethnic, dance, and ceremonial music traditions around the world and in the United States, in which concepts of ethnicity, ethnocentrism, racism, ageism, class differences, and gender issues will be addressed. Guided listening presentations will show how traditional forms and styles have led to the urban, professional music popular in many countries today know as "World Beat." Music of the Americas, Africa, Asia, Australasia and Europe will be covered.

10 SURVEY OF MUSIC HISTORY AND LITERATURE 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
A detailed study of the development of music from antiquity to 1750, emphasizing the relation of music to the social, cultural, economic and political factors which produced it. Required for music majors and designed for those particularly interested in the humanities or the arts.
11  SURVEY OF MUSIC HISTORY AND LITERATURE
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
History of music literature from the beginning of the classical period to music of today, emphasizing the relation of music to the social, cultural, economic and political factors which produced it. Required for music majors and designed for those particularly interested in the humanities or the arts.

Music Performance (MUP)

13  ORCHESTRA
Prerequisite: Ability to play an orchestral instrument.
Acceptable for credit: CSU, UC
18 hours lecture, 54 hours laboratory
Study and performance of orchestral music. Public performances required. May be taken four times for credit. Students may wish to challenge the prerequisite on the basis of equivalent experience.

14  JAZZ ENSEMBLE
Prerequisite: Ability to play at least one instrument commonly used in jazz ensemble.
Acceptable for credit: CSU, UC
18 hours lecture, 54 hours laboratory
Study and performance in stage band and stage routine, including performance from special arrangements. Public performances required. May be taken four times for credit. Students may wish to challenge the prerequisite on the basis of equivalent experience.

16  CONCERT BAND
Prerequisite: Ability to play band instrument. Auditions may be required.
Acceptable for credit: CSU, UC
18 hours lecture, 54 hours laboratory
Open to all students who wish to continue their musical training. This course includes public performance and field trips, and meets requirements for all music majors and minors. Students study music literature composed for concert band and perform concert band music. This course is open to all students and may be taken four times for credit. Students may be required to provide their own instruments. Students may wish to challenge the prerequisite on the basis of equivalent experience.

18  COLLEGE CHORUS
Prerequisite: None.
Acceptable for credit: CSU, UC
18 hours lecture, 54 hours laboratory
Designed for the college student who is interested in a musical experience. Study and performance of standard choral literature. An all-college group. Public performances required. Musical background is not necessary. May be taken four times for credit.

19  COLLEGE CHOIR
Prerequisite: Previous choral experience and/or ability to read the music staff.
Acceptable for credit: CSU, UC
18 hours lecture, 72 hours laboratory
Study and performance of standard vocal literature from 16th century to modern period. Students are urged to enter during the freshman year. The course is not limited to music majors and is open to all qualified students. Public performances required. May be taken four times for credit. Students may wish to challenge the prerequisite on the basis of equivalent experience.

21  CHAMBER SINGERS
Prerequisite: MUP 19 or admission by audition.
Acceptable for credit: CSU, UC
18 hours lecture, 36 hours laboratory plus 36 hours TBA
Study and performance of choral literature, especially written for chamber ensemble. Prospective members should have considerable previous choral experience. Public performances required. May be taken four times for credit. Students may wish to challenge the prerequisite on the basis of equivalent experience.

22  CONTEMPORARY GOSPEL CHOIR
Prerequisite: None.
Acceptable for credit: CSU, UC
18 hours lecture, 54 hours laboratory
This course is designed for the college student who is interested in singing and performing contemporary gospel choral repertoire. No previous musical experience is necessary. The course is open to all interested singers and musicians. Public performance of the repertoire rehearsed and learned is required. This course may be taken two times for credit.

32  PIANO ENSEMBLE
Prerequisite: MUIV 30B.
Acceptable for credit: CSU, UC
36 hours laboratory
Open to students who read music. Emphasis on ensemble playing and continuing development of Comprehensive Keyboard Musicianship with emphasis on study and interpretation of piano literature from each historical and stylistic period. May be taken four times for credit. Students may wish to challenge the prerequisite on the basis of equivalent experience.

43  SPECIAL ENSEMBLE PARTICIPATION
Prerequisite: Open by audition to all students able to perform ensemble music.
27 - 108 hours laboratory
This course is open to all students who sing, or play a musical instrument. Instrumentation of groups will vary, including jazz combo, piano quintet, guitar ensemble, and related music as well as choral groups. The course may be taken four times for credit.
Music Instrumental
Voice Instruction (MUVI)

22A VOICE CLASS  2 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
36 hours lecture, 18 hours laboratory
Training in the correct use of the singing voice, vocal techniques, and repertoire. Required for vocal majors, but open to all students desiring to begin the study of voice.

22B VOICE CLASS  2 Units
Prerequisite: MUVI 22A.
Acceptable for credit: CSU, UC
36 hours lecture, 18 hours laboratory
Training in the correct use of the singing voice, vocal techniques, and repertoire. Required for vocal majors, but open to all students desiring the study of voice. Students may wish to challenge the prerequisite on the basis of equivalent experience.

23A VOICE CLASS INTERMEDIATE  2 Units
Prerequisite: MUVI 22B.
Acceptable for credit: CSU, UC
36 hours lecture, 18 hours laboratory
Vocal exercise and intellectual analysis for the development of efficient singing technique and skill in performing vocal literature. Performance in class and in recital is essential. Required for vocal majors. Students may wish to challenge the prerequisite on the basis of equivalent experience.

23B VOICE CLASS INTERMEDIATE  2 Units
Prerequisite: MUVI 23A.
Acceptable for credit: CSU, UC
36 hours lecture, 18 hours laboratory
Practical application of proper singing techniques with emphasis on English and Italian diction, and English and Italian literature. Performance in class and in recital is essential. Required for vocal majors. Students may wish to challenge the prerequisite on the basis of equivalent experience.

30A BEGINNING PIANO  2 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
36 hours lecture, 18 hours laboratory
Course is based on conceptual learning which is transferable to all areas of music study. Group activities include ear training, repertoire, sight reading and transposition, technique, improvisation, and written work. Goals are literacy and creativity in music through keyboard application. Recommended for all music majors, pre-school and elementary teachers, and required for non-keyboard music majors. May be taken two times for credit.

30B BEGINNING PIANO  2 Units
Prerequisite: MUVI 30A.
Acceptable for credit: CSU, UC
36 hours lecture, 18 hours laboratory
Course is based on conceptual learning which is transferable to all areas of music study. Group activities include ear training, repertoire, sight reading and transposition, technique, improvisation, and written work. Goals are literacy and creativity in music through keyboard application. Recommended for all music majors, pre-school and elementary teachers, and required for non-keyboard music majors. May be taken two times for credit. Students may wish to challenge the prerequisite on the basis of equivalent experience.

31A INTERMEDIATE PIANO  2 Units
Prerequisite: MUVI 31A.
Acceptable for credit: CSU, UC
36 hours lecture, 18 hours laboratory
Course is based on conceptual learning which is transferable to all areas of music study. Group activities include ear training, repertoire, sight reading and transposition, technique, improvisation, and written work. Goals are literacy and creativity in music through keyboard application. Recommended for all music majors, pre-school and elementary teachers, and required for non-keyboard music majors. May be taken two times for credit. Students may wish to challenge the prerequisite on the basis of equivalent experience.

31B INTERMEDIATE PIANO  2 Units
Prerequisite: MUVI 31A.
Acceptable for credit: CSU, UC
36 hours lecture, 18 hours laboratory
Course is based on conceptual learning which is transferable to all areas of music study. Group activities include ear training, repertoire, sight reading and transposition, technique, improvisation, and written work. Goals are literacy and creativity in music through keyboard application. Recommended for all music majors, pre-school and elementary teachers, and required for non-keyboard music majors. May be taken two times for credit. Students may wish to challenge the prerequisite on the basis of equivalent experience.

38 APPLIED MUSIC  1 Unit
Prerequisite: None
18 hours lecture
This course involves off-campus instrumental or vocal study requiring a minimum of one-half hour per week of individual study with a private instructor (at student's expense) for a minimum of 18 weeks. The course meets one hour per week on campus for instruction and performance. The course may be taken four times for credit.
INSTRUMENTAL SKILLS 1/2 - 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours laboratory equals one (1) unit of credit
Independent study designed to provide instrumental training not offered in other CRC music classes. Components of the course may include private or group instruction, solo and ensemble work, accompanying experience, and programmed learning in music fundamentals and music technology. Also for students interested in developing tutorial and/or instrumental skills. Each component may be repeated for a total of 3 units, up to a maximum of 9 units.

BEGINNING GUITAR 2 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
36 hours lecture, 18 hours laboratory
Beginning instruction on the guitar with emphasis on the fundamentals of music as well as basic guitar chord technique and accompaniment figurations.

INTERMEDIATE GUITAR 2 Units
Prerequisite: MUIVI 42A.
Acceptable for credit: CSU, UC
36 hours lecture, 18 hours laboratory
A continuation of MUIVI 42A with emphasis on increased skills in chording, arpeggiation, accompaniment, improvisation, melodic reading, and development of personal style. Students may wish to challenge the prerequisite on the basis of equivalent experience.

JAZZ STYLES AND IMPROVISATION 2 Units
Prerequisite: Ability to play a melodic instrument or ability to sight sing; ability to read music.
Acceptable for credit: CSU, UC
27 hours lecture, 27 hours laboratory
This course is the study of instrumental and vocal applications of jazz improvisation. This course may be taken two times for credit.

MUSIC FOR CHILDREN 3 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
Experiences and materials for integrating music into preschool, elementary, and recreational programs. Recommended for elementary and early childhood credential candidates, recreation leaders, and others who use music with children. Required for Teacher Assistant Program. (See Early Childhood Education)

TEACHER AIDE 1-4 Units
Prerequisite: A grade of "B" or better in the course for which the student is going to be a teacher's aide, or equivalent.
9-36 hours lecture, 27-108 hours laboratory
Acceptable for credit: CSU
This is a course for students who want to develop an in-depth understanding of the fundamentals of music and learn to work with individuals and small groups of students.

SPECIAL STUDIES IN MUSIC 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU, UC
Area of Humanities & Social Science

Philosophy

Philosophy is the logical examination of the fundamental issues people have pondered for over 2500 years. What is reality and what is beauty? What is knowledge and truth? What is good and just? Does human existence have meaning and does God exist? Philosophy courses are directed toward understanding these questions in their historical and cultural contexts and applying insights to contemporary life. Rigorous philosophical study will improve one’s critical thinking skills.

Career Options
Education; Ethics; Management; Law; Government; Publishing; Religious Service; Scientific Research; Social Work; Teaching; All Human Service Careers

Some career options may require more than two years of college study.

Highlights
Dedicated and enthusiastic instructional staff with expertise in critical thinking and ethics
Excellent transfer preparation by emphasizing critical writing and reading
Examination of traditional philosophical issues

Philosophy

2 CRITICAL REASONING AND COMPOSITION 3 Units
Prerequisite: English 1A with a grade of “C” or better. Acceptable for credit: CSU, UC 54 hours lecture
Instruction in critical thinking, including traditional logic, and in advanced composition. A series of writing assignments will focus on increasing the sophistication of argumentative essay skills. Essays shall be evaluated for their quality in both critical thinking and composition. Theoretical models of critical thinking and composition shall be applied to academic fields and textbooks, electronic and print media, advertisements, ethics, politics, and multi-cultural issues.

4 INTRODUCTION TO LOGIC 3 Units
Prerequisite: None. Acceptable for credit: CSU, UC 54 hours lecture
An introduction to basic principles and frameworks of logic and critical thinking appropriately used in argument analysis: deduction, induction, fallacy recognition. Emphasis on developing analytical skills and applying principles of good reasoning to the arguments encountered in life. Argument topics from academic fields and textbooks, the electronic and print media, advertisements, politics and ethics may be considered. The quality and quantity of the course’s required writing will reflect the standards of a second semester composition course. (CAN PHIL 6)
5  INTRODUCTION TO ETHICS  3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
The application of theories developed by traditional and con-
temporary moral philosophy to the ethical problems, dilem-
mas, and issues of today. (CAN PHIL 4)

6  INTRODUCTION TO PHILOSOPHY  3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course will focus on critical thinking techniques and apply
them to the following philosophical areas: metaphilosophy,
theory of knowledge, metaphysics, ethics, political philosophy,
and philosophy of religion. In applying critical thinking tech-
niques to philosophical problems, students are encouraged to
develop their own philosophical perspective and world view.
The quality and quantity of the course’s required writing will
reflect the standards of a second semester composition course.
(CAN PHIL 2)

7  PHILOSOPHY OF SOCIAL SCIENCE  3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
A historical, methodological, and topical survey of significant
themes of social and political philosophy from Plato to our
present times: authority, freedom, government, justice, law,
rights, society and the state.

8  CONTEMPORARY PHILOSOPHY  3 Units
Prerequisite: None. (A course in philosophy is desirable)
Acceptable for credit: CSU, UC
54 hours lecture
A comprehensive study of the basic ideas of pragmatists,
twentieth century metaphysicians, philosophers of language,
and existentialists. Special attention will be given to relevance
of their ideas to modern life.

9  INTRODUCTION TO WORLD RELIGIONS  3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course will introduce students to the major world religious
traditions, including indigenous sacred ways, Hinduism, Bud-
dhism, Taoism and Confucianism, Judaism, Christianity and
Islam. Students will study the practices and beliefs of each
tradition, and will read selected material from the sacred
writings of each tradition. Also considered is the influence of
world religions in contemporary United States society, focusing
on ethnicity, ethnocentrism, racism, ageism, class differences,
and gender issues.

10  PHILOSOPHY OF RELIGION  3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
A historical and topical survey of the questions, problems, and
theories philosophers have developed in attempts to under-
stand religion as a fundamental impulse within human experi-
ence and as a major cultural force. Rather than survey the
der different religions, this course considers the basic philosophical
beliefs and concepts that seem auxiliary to religion. Topics
explored include: the possibility of religious knowledge, faith
versus reason, theistic arguments, conceptions of God, reli-
gious language, atheism, agnosticism, mysticism, the problem
of evil, immortality, the challenge of science, and religion’s
influence on ethics and politics.

16  INTRODUCTION TO THE BIBLE  3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
54 hours lecture
This course surveys the literary, historical, ethical, theological
and philosophical themes of the Bible. Students will read
extensive passages from the Hebrew and Christian Scriptures
with special focus on text criticism, the development of Mono-
theism, the social justice tradition of the Prophets, the Gospels
and the “Jesus Problem,” and the early development of the
Christian Church.

20  HISTORY OF CLASSICAL PHILOSOPHY  3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
54 hours lecture
This course is a survey of the origin and development of
Western Philosophy from the period of the ancient Greeks and
Romans, and continuing through the Middle Ages. This course
is especially recommended for all philosophy, history and
humanities majors.

21  HISTORY OF MODERN PHILOSOPHY  3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
54 hours lecture
This course is a survey of the development of Western Philoso-
phy from the period of the Renaissance through the period of
modern Europe and America. This course is especially recom-
pended for all philosophy, history and humanities majors.

49  SPECIAL STUDIES IN PHILOSOPHY  1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU, UC
Area of Communication, Visual & Performing Arts

Photography

DEGREE
A.A.—Photography

CERTIFICATES
Photography

Portraiture and Wedding Photography
Commercial & Studio Photography
Desktop Publishing, see page 97.

CRC's program is designed to teach skills for entry-level positions in the photographic industry or for advanced students wishing more specialized skills. This program will also be of value to the student interested in photography as an avocation or an adjunct to a vocation.

Flexibility of the advanced program allows a student to concentrate upon a specific photographic career area.

Students planning to prepare for a four-year degree in Photography should consult the lower division requirements of the university to which they plan to transfer.

Career Options
   Commercial Illustration and Advertising;
   Portrait & Wedding Photography;
   Photographic Lab Technician;
   Photojournalism; Industrial Photography;
   Fashion & Glamour Photography;
   Architectural Photography

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Highlights
   Modern Lab and Studio Facilities
   Sixteen Color Enlargers
   Sixteen Black & White Enlargers
   Digital Imaging
   Black/White Paper Processor
   Digital Printer
   20" Ektaprint Rapid Access Processor
   Cibachrome Processor
   Color Film Processor
   Digital Imaging Facility

Field Trips to a variety of photographic businesses in the Sacramento, Bay Area, and Yosemite

DEGREE
A.A.—Photography
CODE #1059

REQUIRED PROGRAM ............................................................ Units
C MED 5/JOUR 10 Mass Media & Society .................................. 3
C MED 54 Basic Film/Video Camera Techniques .................... 3
PHOTO 1 Photography-Its Influence in Contemp. Society ...... 1
PHOTO 40 Beginning Photography ......................................... 3
PHOTO 41 Intermediate Photography .................................... 3
PHOTO 42 Color Photography .................................................. 3
PHOTO 43 Careers in Photography ....................................... 3
PHOTO 57 Digital Imaging ...................................................... 3
MGMT 24 Techniques in Management ................................... 3
SPEE 1 Speech Communication or SPEE 9 The Communication Experience .......................... 3

TOTAL UNITS REQUIRED .......................................................... 28

Suggested Electives: Accounting 1A, 60; Art 10, 11A, 11B, 15A;
Marketing 22; Chemistry 2A; Communications Media 60, 70, 80;
Photography 14, 45, 47, 51, 52, 53.

General Education Graduation Requirements - See page 18.

CERTIFICATE
Photography
CODE #1059

REQUIRED PROGRAM ............................................................ Units
PHOTO 1 Photography-Its Influence in Contemp. Society ...... 1
PHOTO 40 Beginning Photography ......................................... 3
PHOTO 41 Intermediate Photography .................................... 3
PHOTO 42 Color Photography .................................................. 3
PHOTO 43 Careers in Photography ....................................... 3

TOTAL UNITS REQUIRED ......................................................... 13
CERTIFICATE
Portraiture and Wedding Photography
CODE #1214

REQUIRED PROGRAM ............................................................. Units
PHOTO 1 Photography-Its Influence in Contemp. Society 1
PHOTO 40 Beginning Photography ........................................... 3
PHOTO 41 Intermediate Photography ...................................... 3
PHOTO 42 Color Photography .................................................... 3
PHOTO 43 Careers in Photography .......................................... 3
PHOTO 50 Studio Lighting Techniques ...................................... 3
PHOTO 52 Portraiture and Wedding Photography ..................... 3
PHOTO 53 Fashion-Glamour Photography ............................... 3

TOTAL UNITS REQUIRED .............................................................. 22

CERTIFICATE
Commercial and Studio Photography
(formerly Advertising & Commercial Photography)
CODE #1445

REQUIRED PROGRAM ............................................................. Units
PHOTO 1 Photography-Its Influence in Contemp. Society 1
PHOTO 40 Beginning Photography ........................................... 3
PHOTO 41 Intermediate Photography ...................................... 3
PHOTO 42 Color Photography .................................................... 3
PHOTO 43 Careers in Photography .......................................... 3
PHOTO 45 Advanced Color Photography or Digital Imaging ................ 3
PHOTO 47 Large Format Photography ....................................... 3
PHOTO 50 Studio Lighting Techniques ...................................... 3
PHOTO 51 Zone System .............................................................. 3
PHOTO 56 Commercial & Advertising Photography .................. 3

TOTAL UNITS REQUIRED .............................................................. 28

1 PHOTOGRAPHY-ITS INFLUENCE IN CONTEMPORARY SOCIETY
1 Unit
Prerequisite: None.
Acceptable for credit: CSU, UC
18 hours lecture
A survey course of important historical and contemporary photographers, designed to expose the student to various fields of photography. In our society, we are overwhelmed by visual information of all kinds. This course intends to increase visual literacy. The format of the class includes: slide presentations, discussions, written tests and a journal.
14 ART OF THE CINEMA 3 Units
Prerequisite: None. (Not open to students who have received credit for Communications Media 14.)
Acceptable for credit: CSU, UC-See Counselor
54 hours lecture
An introduction to the art of motion pictures, using both lectures and films. Students will study briefly the history of motion pictures and will view, evaluate, and critique films that are landmarks in the art of movie making.

40 BEGINNING PHOTOGRAPHY 3 Units
Prerequisite: Completion of or concurrent enrollment in Photography 1. (Not open to students who have received credit for Art 40.)
Acceptable for credit: CSU, UC-See Counselor
36 hours lecture, 54 hours laboratory
A course combining lectures and hands-on experience in black and white photography. Instruction includes camera function, exposure control, film processing, enlarging prints, low light photography, and print finishing. Creative control and elements of composition will also be stressed. The format of the class includes lectures, slide presentations, lab time, written tests and a portfolio. Students may wish to challenge the prerequisite on the basis of equivalent experience.

41 INTERMEDIATE PHOTOGRAPHY 3 Units
Prerequisite: Photography 40.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course is designed to expand on the concepts, both technical and creative, acquired in beginning photography. Topics of instruction include exposure and development control, archival printing, introduction to medium and large format photography and studio lighting techniques, print toning, high contrast photography, and several alternative methods of black and white print manipulation. The class includes lectures, slide presentations, lab time, written tests, and a portfolio. May be taken two times for credit. Students may wish to challenge the prerequisite on the basis of equivalent experience.

42 COLOR PHOTOGRAPHY 3 Units
Prerequisite: Photography 41.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course covers the fundamental principles of color photography. Topics of instruction include correct exposure for color negative films, processing color negatives, printing from color negatives, use of Image Maker and Hope color processors, techniques to determine correct color balance, and retouching color prints. The class includes lectures, slide presentations, lab time, written tests, a journal and a portfolio.
This course is designed to give students an overview of different careers available in the photographic industry. Fields of study include portraiture, wedding photography, fashion, commercial, and tabletop, photojournalism and fine-art photography. Students are encouraged to pursue their own area of interest. This course provides instruction in camera and photojournalism techniques in black and white and color photography. Exposure control and darkroom techniques are emphasized. Digital photography will be covered as well. A print portfolio or digital portfolio will be completed. Students must provide their own single lens reflex camera and related materials.

This course covers color slide processes and their practical applications. Topics of instruction include correct exposure for color slide film under a variety of lighting conditions, processing and mounting color slides, printing from color slides, use of Image Maker, Hope and Cibachrome color processors, color densitometry and process control management, and production of color display materials. The class includes lectures, lab time, written tests, a journal and a portfolio. Students may wish to challenge the prerequisite on the basis of equivalent experience.

This course is designed to allow advanced students to pursue and research their photographic interests and receive credit. Students must provide a proposal outlining their area of interest and arrange meetings with an instructor. Students may wish to challenge the prerequisite on the basis of equivalent experience.

This course is an advanced study in the zone system in black and white, designed to give the student an in-depth understanding both in theory and practice. Topics include metering exposure for appropriate zone placement, processing control for accurate negative contrast, testing of photographic materials including densitometry. Students are encouraged to use a variety of formats. The class includes lectures, slide presentations and discussions, on-location field trips, lab time, written tests, a journal, and a portfolio. Students may wish to challenge the prerequisite on the basis of equivalent experience.

This course is designed to give students a thorough knowledge of view camera operation, both in the studio and in the field. Topics of instruction include view camera movements to obtain unlimited focus and perspective, correct techniques for exposing, and processing sheet film, adjustments necessary to print large format negatives, and presentation of the large format image. Students may work in black and white, color or both. The class includes lectures, lab time, studio time, written tests, a journal, and a portfolio. Students are urged to provide their own large format camera. Students may wish to challenge the prerequisite on the basis of equivalent experience.

This course is designed to provide students with an overview of the portraiture and wedding photography business. Topics include techniques of lighting, use of appropriate films and formats, and professional practices and strategies for beginning business. Students are urged to work in color. The class includes lectures, lab time, on-location field trips, written tests, a journal and a portfolio geared toward a professional presentation. Students may wish to challenge the prerequisite on the basis of equivalent experience.
53  FASHION-GLAMOUR PHOTOGRAPHY  3 Units
Prerequisites: Photography 42.
Advisory: Photography 50
36 hours lecture, 54 hours laboratory
This course is designed to provide students with a basic understanding of the fashion photography industry. Topics include advanced studio lighting techniques, basic styling for hair and make-up, posing models, and professional practices. Students may work in both black and white and color. The class includes lectures, slide presentations, field trips, lab time, written tests, a journal and a portfolio geared toward a professional presentation. Students may wish to challenge the prerequisite on the basis of equivalent experience.

56  COMMERCIAL AND ADVERTISING PHOTOGRAPHY  3 Units
Prerequisite: Photography 42.
Advisory: Photography 50
36 hours lecture, 54 hours laboratory
This course is a concentrated study in studio lighting techniques used in the production of advertising photographs. Topics of instruction include advanced studio lighting techniques, correct exposure using strobe, appropriate choice of camera format and films, studies in composition and meaning of advertising photographs and market research. Students are encouraged to work in a variety of formats. The class includes lectures, slide presentations and discussions, on-location field trips, lab time, written tests, a journal and a portfolio geared toward a professional presentation. Students may wish to challenge the prerequisite on the basis of equivalent experience.

57  DIGITAL IMAGING  3 Units
Prerequisite: None.
36 hours lecture, 54 hours laboratory
This is an introductory course in digital imaging and electronic desktop photography. Methods currently used in publishing will be emphasized. The class includes lectures, use of computers and scanners, slide presentations, occasional off-campus class meetings, and preparation of a notebook and a digital portfolio.

59  ADVANCED DIGITAL IMAGING  3 Units
Prerequisite: Photography 57
36 hours lecture, 54 hours laboratory
This course is an advanced study of digital imaging and related software programs. Methods currently used in publishing will be emphasized. The class includes lectures, use of computers, scanners, and a variety of output devices, and preparation of a digital portfolio. This course will introduce the student to the emerging field of multi-media and visit various local businesses.

90  SPECIAL TOPICS IN PHOTOGRAPHY .5-3 Units
Prerequisite: None
One (1) unit equals 18 hours lecture or 54 hours laboratory
This course is designed to cover special topics not included in current curriculum offerings. Topics may be offered in workshop or seminar presentations on timely subjects for specific audiences.

98  WORK EXPERIENCE IN PHOTOGRAPHY  1-4 Units
(See catalog p. 22)
Acceptable for credit: CSU—See counselor
Area of Physical Education & Athletics

Physical Education & Athletics

Red Cross Certification
(see Health Education)

The Cosumnes River College Physical Education program offers a wide variety of physical education classes, including Fitness, Dance, Aquatics, Combatives, Individual Sports, Team Sports, Intercollegiate Athletics, and Physical Education Theory classes.

Career Options
Physical Education Instructor/Assistant; Coach; Athletic Trainer; Recreational Supervisor

Highlights
A wide variety of physical education options
Outstanding aquatic facilities, tennis courts and gymnasium floor
Excellent fitness opportunities, dance and weight training facilities

Physiological Education
All activity classes are open to both men and women unless noted within the course title. Students may enroll in more than one physical education class at one time. They may not enroll in more than one section of the same activity during the same semester. Some four-year colleges and universities limit the number of physical education units they will accept toward the baccalaureate degree. Students should check the appropriate catalog.

The prefix "PER" refers to courses which may be used to satisfy the physical education graduation requirement. Several activities within the PER category are separated into the beginning and intermediate levels. The beginning classes concentrate on fundamental skills, rules, scoring, equipment, dress, etiquette and basic strategy. The intermediate classes continue efforts on skill development while concentrating on strategy and competitive play.

PER activity courses may be taken up to four times in each activity area, unless otherwise identified (e.g. four Tennis, four Aerobics, four Weight Training, etc.).

Courses with the "PET" prefix are open to students interested in the theoretical aspects of sports activity, and in the physical education major field. PET courses do not meet the physical education graduation requirement; however, they are all transferable.

ATHLETICS
Academic Advising for Athletes

12 intercollegiate athletic opportunities for student participation:

For Men
Baseball
Basketball
Soccer
Tennis
Track & Field

For Women
Basketball
Soccer
Softball
Tennis
Track & Field
Volleyball
Water Polo
Cosumnes River College is a member of the Bay Valley Conference which includes 17 member community colleges located in the San Francisco Bay Area and the interior valleys of Northern California. The Bay Valley Conference is a member of the Community College League of California - Commission on Athletics (COA) and adheres to all rules and regulations governing community college athletics within the State of California.

In order to participate in intercollegiate athletics, both men and women must fulfill the requirements of the Los Rios Community College District and the Athletic Constitution of the Commission on Athletics. These requirements are very exacting and the athletes are advised to become thoroughly familiar with them in order to avoid eligibility problems. Each athletic coach and the athletic director are familiar with the eligibility requirements and would be available to answer specific questions.

Students who have not competed in intercollegiate athletics are deemed scholastically eligible for their first season of competition. In order to maintain eligibility, an athlete must participate in Cosumnes River College's Athletic Academic Advising. This Academic Advising Program requires athletes to:

- Meet with an athletic academic counselor annually and complete a Student Educational Plan (SEP).
- Maintain at least a 2.0 cumulative Grade Point Average (GPA), attend classes regularly and complete all assigned course work.
- Successfully complete 24 units between the first and second season of participation in a specific sport, of which 18 units must be in General Education or degree specific classes.
- Maintain active enrollment in a minimum of 12 units during the semester of competition. Nine of these 12 units must be General Education or degree specific.

### Physical Education

#### PER 1

Prerequisite: Beginning classes - None. Intermediate classes -- the corresponding beginning activity. Students may wish to challenge the prerequisite on the basis of equivalent experience.

Acceptable for credit: CSU, UC-See Counselor

Any physical education activity course(s) with a PER designation totaling 1 unit will meet the general education graduation requirement. However, students are permitted to take more than one activity course each semester.

#### INDIVIDUALIZED PHYSICAL FITNESS

1 Unit

54 hours laboratory

This course is a physical education class that emphasizes a personalized health-related physical fitness and recreational activities. This course deals primarily with physical activity, exercise, health physical fitness, skill learning and body mechanics. This course may be taken four times.

#### ADAPTED AQUATICS

1 Unit

9 hours lecture, 27 hours laboratory

A personal water safety and fitness class adapted for individuals with physical restrictions. This course may be taken four times.

#### ADAPTED PHYSICAL EDUCATION

1 - 2 Units

18 hours lecture, 54 hours laboratory

In adapted physical education the instructor works under the recommendations/direction of the student's physician. Class activities are adapted/modified to meet individual needs. Each student performs at an individual level of ability without pressure or competition. Both temporary and permanent disabilities are served as well as students with major health problems. Students must have a physician's statement indicating: (a) the handicap, (b) specific restrictions, and (c) recommended activities. One-half hour lecture and one and one-half hours lab equal one unit. This course may be taken four times.

#### AEROBICS

1.5 Units

18 hours lecture, 36 hours laboratory

This physical education course is an activity class designed to help students gain an understanding of how to develop overall physical fitness. This course involves calisthenics, floor exercises, aerobic activity and strength development. This course may be taken four times.

#### AQUA AEROBICS

1 Unit

54 hours laboratory

This course is a physical education class that covers basic aquatic exercises. Body alignment, heart rates, aerobic sets and resistance strength development will be included. This course may be taken four times.
AQUATIC FITNESS 1 Unit
54 hours laboratory
This course is a physical education class that covers instruction and practice in swimming with major emphasis on cardiovascular fitness. Workouts will be designed to improve individual aerobic fitness, stroke efficiency and muscular endurance. This course may be taken four times.

BADMINTON 1 Unit
54 hours laboratory
This coed course covers badminton skills for beginning, intermediate and advanced players. It is designed to cover rules, skills, strategies and sport appreciation. This course may be taken four times.

BASKETBALL, ADVANCED 1 Unit
Advisory: Intermediate Basketball skills.
54 hours laboratory
This course is a physical education course that covers a complete review of the basic fundamentals, tactics, rules, and systems of play, and will enhance the student's understanding and ability. This class may be taken four times.

BODY FITNESS 2 Units
18 hours lecture, 54 hours laboratory
This course is an activity class which emphasizes cardiovascular development through continuous aerobic activity (e.g., jogging, stationary bicycle riding, calisthenics). This course may be taken four times.

BOWLING 1 Unit
9 hours lecture, 27 hours laboratory
This course is a coed physical education bowling class at the beginning level. This course may be taken four times.

BOWLING (INTERMEDIATE) 1 Unit
Prerequisite: The corresponding beginning activity.
9 hours lecture, 27 hours laboratory
This course is a coed physical education bowling class at the intermediate level. Students may wish to challenge the prerequisite on the basis of equivalent experience. This course may be taken four times.

COUNTRY WESTERN DANCE 1 Unit
54 hours laboratory
This course provides instruction in basic country western line dances and partner swing dances such as the Texas Two Step and Country Waltz plus current dances that are in vogue.

DANCE AEROBICS 1 Unit
54 hours laboratory
This class is designed to provide aerobic exercise through group activities focusing on dance movement and rhythmic activities.

DANCE COMPOSITION AND PRODUCTION 2 Units
Prerequisite: Intermediate modern dance
18 hours lecture, 54 hours laboratory
This physical education course is the study and performance of dance composition including technique, choreography and direction. Students may wish to challenge the prerequisite on the basis of equivalent experience. This course may be taken four times.

JAZZ DANCE, BEGINNING 1 Unit
54 hours laboratory
This physical education course covers barre and center floor warm-ups, exercises, jazz techniques, isolations, walks and turns. This course explores variation of styles in ethnic, lyrical and modern given in combinations and offers students the opportunity for exploration and improvisation using jazz steps learned in class. This course may be taken four times.

GOLF 1 Unit
18 hours lecture, 27 hours laboratory
Beginning, Intermediate
This class covers basic fundamentals, techniques, rules and social courtesies of golf. This course may be taken four times.

KARATE FITNESS, BEGINNING 2 Units
27 hours lecture, 27 hours laboratory
This class is a conditioning program that shall emphasize various fitness components such as muscle strength and endurance, coordination, flexibility, timing, as well as aerobic capacity through the practice of beginning Karate skills and self-defense techniques. This course is designed for both men and women and shall include the basic Karate movements of blocks, stances, and pivots, strikes and punches, kicks, basic KATA (forms) and self-defense techniques. This is a non-contact class, no sparring. This class may be taken four times.

LAP SWIMMING 1 Unit
(formerly Swimming Fitness)
Prerequisite: Completion of intermediate swimming
54 hours laboratory
This is a swimming class stressing aerobic fitness. This is a self-paced "overload" method of training using a workout approach. Stroke efficiency and aerobic fitness will be emphasized. This course may be taken four times.

LIFEGUARD TRAINING 1 Unit
Prerequisite: Intermediate swimming skill level
9 hours lecture, 27 hours laboratory
The Red Cross Life Saving Manual is followed to give students the fundamentals and background of life saving. A Red Cross Life Saving Card can be earned. Students may wish to challenge the prerequisite on the basis of equivalent experience. This class may be taken four times.

MODERN DANCE 1.5 Units
18 hours lecture, 36 hours laboratory
Beginning, Intermediate
This class offers an introduction to basic dance movement, basic elements of music and rhythm. Creative assignments will be given in improvisation and movement communication and expression utilizing problem solving techniques. This course may be taken four times.
<table>
<thead>
<tr>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td>MOTOR DEVELOPMENT</td>
<td>1 - 2</td>
<td>Acceptable for credit: CSU, UC - see Counselor</td>
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<tr>
<td>FOR THE PHYSICALLY CHALLENGED</td>
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<td>9 - 18 hours lecture, 27 - 54 hours laboratory</td>
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<td>Student must have a doctor's recommendation on file. Individual instruction</td>
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<td>to promote and develop overall physical fitness and psychomotor skills.</td>
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<td>This activity class for the physically challenged includes exercises in</td>
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<td>flexibility, strength development, aerobic activity and relaxation. One-</td>
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<td></td>
<td>half hour lecture and one-and-one-half hours laboratory per unit. This course</td>
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<td></td>
<td>may be taken four times.</td>
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<tr>
<td>MOUNTAINEERING</td>
<td>2</td>
<td>Prerequisite: None.</td>
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<td></td>
<td>18 hours lecture, 54 hours laboratory</td>
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<td>This course is designed to provide students with the opportunity to gain</td>
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<td>the knowledge and skills of mountaineering in a safe, enjoyable manner.</td>
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<td>Topics covered will be: outdoor fundamentals; rock, snow, ice and alpine</td>
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<td>climbing; emergency prevention and response; the mountain environment. Two</td>
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<td>field trips to area crags and visits to local rock gymnasiums will</td>
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<td>comprise the laboratory portion of the course.</td>
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<tr>
<td>OFF-SEASON CONDITIONING</td>
<td>1.5</td>
<td>18 hours lecture, 36 hours laboratory</td>
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<td>This course is designed to prepare athletes for the competitive season.</td>
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<td></td>
<td>It presents a solid aerobic conditioning and weight training combination of</td>
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<td>activities to prepare the athlete both mentally and physically. This class</td>
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<td></td>
<td>may be taken four times.</td>
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<tr>
<td>OLYMPIC ROWING</td>
<td>1</td>
<td>Prerequisite: Beginning swimming</td>
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<td></td>
<td>54 hours laboratory</td>
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<td></td>
<td>This course is designed to provide an introduction to the fundamentals of</td>
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<td>Olympic rowing. Instruction in rowing will range from the modern eight-</td>
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<td>oared racing shell to the one-person rowing shell. This class may be taken</td>
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<td></td>
<td></td>
<td>four times.</td>
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<tr>
<td>POWER VOLLEYBALL</td>
<td>1</td>
<td>54 hours laboratory</td>
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<td></td>
<td>Intermediate, Advanced</td>
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<td>Instruction in passing, setting, blocking, spiking, serving and strategy.</td>
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<td>Includes drills and games. This class may be taken four times.</td>
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<tr>
<td>RACQUETBALL</td>
<td>1.5</td>
<td>18 hours lecture, 36 hours laboratory</td>
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<td></td>
<td>This physical education course introduces basic skills and strategy of</td>
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<td>racquetball. The lectures, demonstrations and participation will provide</td>
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<td>the student with sufficient knowledge to continue the sport as a lifetime</td>
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<td>fitness activity. This course may be taken four times.</td>
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<tr>
<td>RACQUETBALL (INTERMEDIATE)</td>
<td>1.5</td>
<td>Prerequisite: Corresponding beginning activity</td>
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<td></td>
<td>18 hours lecture, 36 hours laboratory</td>
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<td>Designed to develop intermediate skills in those students who have</td>
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<td>already participated at the beginning level. Lecture, demonstration and</td>
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<td>participation will provide the student with sufficient knowledge to</td>
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<td>continue the sport as a lifetime fitness activity. Students may wish to</td>
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<td>challenge the prerequisite on the basis of equivalent experience. This class</td>
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<td></td>
<td>may be taken four times.</td>
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<tr>
<td>SELF-DEFENSE FOR MEN</td>
<td>1.5</td>
<td>18 hours lecture, 36 hours laboratory</td>
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<td></td>
<td></td>
<td>This physical education class covers personal safety and defense for men.</td>
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<td>This course may be taken four times.</td>
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<tr>
<td>SELF-DEFENSE FOR WOMEN</td>
<td>1.5</td>
<td>18 hours lecture, 36 hours laboratory</td>
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<td></td>
<td>This physical education class covers personal safety and defense for women.</td>
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<td>This course may be taken four times.</td>
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<tr>
<td>SOCIAL DANCE</td>
<td>1.5</td>
<td>18 hours lecture, 36 hours laboratory</td>
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<td>This activity class is designed to provide students the opportunity to</td>
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<td>develop physical, mental and social skills through Social Dance. Dances</td>
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<td>presented will include Swing, Foxtrot, Waltz, Cha Cha, Rumba, Tango, and</td>
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<td>Country Swing. This class may be taken four times.</td>
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<tr>
<td>SOFTBALL, SLOW PITCH</td>
<td>1</td>
<td>54 hours laboratory</td>
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<td></td>
<td>This physical education class is designed to develop basic softball skills</td>
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<td>and understanding of slow pitch rules in tournament format. This course</td>
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<td></td>
<td>may be taken four times.</td>
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<tr>
<td>STEP AEROBICS</td>
<td>1.5</td>
<td>18 hours lecture, 36 hours laboratory</td>
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<td>This course is designed to develop muscular strength, endurance and</td>
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<td>coordination. This course uses a high/low impact conditioning program that</td>
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<td>greatly enhances cardio-vascular fitness. This class may be taken four times</td>
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<tr>
<td>SWIMMING</td>
<td>1</td>
<td>9 hours lecture, 27 hours laboratory</td>
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<td></td>
<td>Beginning, Intermediate</td>
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<td>This class provides the development of basic skills of swimming on the</td>
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<td>front and back. It also provides an introduction to crawl, side, and</td>
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<td>elementary back stroke. This course may be taken four times.</td>
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<tr>
<td>TEAM SPORTS</td>
<td>.5</td>
<td>27 hours laboratory</td>
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<td></td>
<td>This is an activity course designed to emphasize knowledge and skill</td>
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<td>development in team sports (basketball, soccer, baseball, softball,</td>
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<td>volleyball). This course may be taken four times.</td>
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<tr>
<td>TEAM SPORTS, INTERMEDIATE</td>
<td>1.5</td>
<td>18 hours lecture, 36 hours laboratory</td>
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<td></td>
<td></td>
<td>Intermediate</td>
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<td></td>
<td>This is an activity course designed to emphasize continued knowledge and</td>
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<td>skill development in team sports (e.g., basketball, soccer, baseball,</td>
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<td>softball, volleyball). This course may be taken four times.</td>
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<tr>
<td>TENNIS</td>
<td>.5</td>
<td>27 hours laboratory</td>
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<td></td>
<td>Beginning, Intermediate</td>
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<tr>
<td></td>
<td></td>
<td>Basic fundamentals, techniques, rules, and social courtesies of tennis.</td>
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<td></td>
<td>Instruction in intermediate skills. This class may be taken four times.</td>
</tr>
</tbody>
</table>
TENNIS 1.5 Units
18 hours lecture, 36 hours laboratory
This course provides basic fundamentals, techniques, rules and social courtesies of tennis. This course may be taken four times.

TRACK AND FIELD 2 Units
18 hours lecture, 54 hours laboratory
This physical education class provides students an opportunity to acquire knowledge with regard to Track and Field events and associated training techniques. This course may be taken four times.

VOLLEYBALL 1.5 Units
18 hours lecture, 36 hours laboratory
This is a coeducational course in the fundamentals and playing of volleyball. Lecture, demonstration and participation will provide the student with sufficient knowledge to participate in this sport recreationally. This class may be taken four times.

WATER POLO 1 Unit
54 hours laboratory
This course is a coed physical education course that covers basic skills, rules and techniques of water polo, conditioning, stroke techniques, sprints, ball handling, treading water and shooting will be included. This class may be taken four times.

WATER SAFETY INSTRUCTION 1.5 Units
18 hours lecture, 36 hours laboratory
Students who successfully complete this course will be certified (W.S.I.) instructors. This course may be taken four times.

WEIGHT TRAINING 1.5 Units
18 hours lecture, 36 hours laboratory
This physical education course is designed to develop fitness through weight training. The class is specifically aimed at muscle group development. This course may be taken four times.

WORKFORCE FITNESS 1 Unit
9 hours lecture and 27 hours laboratory
This physical education course emphasizes concepts related to health, physical fitness and recreation as they relate to the industrial worker. Exercise programs will be designed to improve specific muscle groups impacted in the occupational setting. This course may be taken four times.

BASEBALL, MEN (Spring) 2 Units
180 hours laboratory

BASKETBALL, MEN (Fall) 2 Units
180 hours laboratory

BASKETBALL, WOMEN (Fall) 2 Units
180 hours laboratory

CROSS COUNTRY, MEN/WOMEN (Fall) 2 Units
180 hours laboratory

SOCCER, MEN (Fall) 2 Units
180 hours laboratory

SOCCER, WOMEN (Fall) 2 Units
180 hours laboratory

SOFTBALL, WOMEN (Spring) 2 Units
180 hours laboratory

TENNIS, MEN/WOMEN (Spring) 2 Units
180 hours laboratory

TRACK AND FIELD, MEN/WOMEN (Spring) 2 Units
180 hours laboratory

VOLLEYBALL, WOMEN (Fall) 2 Units
180 hours laboratory

WATER POLO, WOMEN (Fall) 2 Units
180 hours laboratory

PER 3
Prerequisite: None.
Acceptable for credit: CSU, UC-See Counselor

INTRAMURAL SPORTS .5 Unit
9 hours lecture, 27 hours laboratory
This course is designed for students interested in learning new sports skills and/or increasing their own sports skills. This course is intended to provide recreational, competitive and instructional opportunities other than those currently offered. This course may be taken four times.

PER 4
Prerequisite: None.
Advisory: Adequate skill level
Acceptable for credit: CSU, UC-See Counselor

INTERCOLLEGIATE ATHLETICS
Students enrolled at Cosumnes River College may participate in intercollegiate athletics offered at the other two Los Rios Community Colleges, provided Cosumnes River College does not offer the particular intercollegiate sport. The Athletic Department should be contacted regarding eligibility requirements.

The prefix “PET” refers to physical education courses open to all students interested in the theoretical aspects of various sports activities, in adapted physical education, and in the physical education major field.
PET 12 INTRODUCTION TO PHYSICAL EDUCATION 2 Units
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
36 hours lecture
This course is designed to give the prospective Physical Education Educator, Coach, or Fitness Leader an understanding of the dynamics of physical education, including opportunities and responsibilities associated with physical education leadership. Theory, history and principles of physical education will be covered.

PET 13 SPORTS OFFICIATING 2 Units
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
36 hours lecture, 18 hours laboratory
Theory and practice are combined in study of the organization and techniques of officiating at competitive athletic activities. The student obtains comprehensive instruction on rules and officiating techniques with practical experience required in intramural, varsity programs, and leagues.

PET 14 SPORTS OFFICIATING 2 Units
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
36 hours lecture, 18 hours laboratory
In this physical education course, theory and practice are combined in study of the organization and techniques of officiating at competitive athletic activities. The student obtains comprehensive instruction on rules and officiating techniques with practical experience required in intramurals.

PET 15 THEORY AND TECHNIQUES OF ADAPTED PHYSICAL EDUCATION 3 Units
Prerequisite: Health Education 11 (CPR)
Acceptable for credit: CSU
54 hours lecture
This is a lecture course which provides knowledge and experience in rehabilitation uses of recreation and exercise programs. This class develops skills which qualify an individual to work with physically limited persons.

PET 16 LABORATORY IN ADAPTED PHYSICAL EDUCATION 1-2 Units
Prerequisite: PET 15, or concurrent enrollment
Acceptable for credit: CSU
54 hours laboratory equals one (1) unit of credit
This course is a directed laboratory experience in the basic principles of assisting the physically limited in prescribed exercise programs. This course may be taken three times for credit.

PET 17 THEORY OF BASEBALL 2 Units
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
36 hours lecture
This course is designed to develop a thorough understanding of baseball. Special emphasis on individual skills, position play, and team strategy. This course may be taken twice for credit.

PET 18 THEORY OF BASKETBALL 2 Units
Prerequisite: None.
Acceptable for credit: CSU
36 hours lecture
This course is designed to develop a thorough understanding of coaching basketball. Special emphasis on individual skills, position play, and team strategy. This course may be taken twice for credit.

PET 20 THEORY OF TENNIS, TACTICS & STRATEGY 2 Units
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
36 hours lecture
This course will examine the United States Tennis Association’s basic components of its USTA player development program. Emphasis placed upon practical application of those components to competitive and recreational tennis.

PET 24 FUNDAMENTALS OF GAMES AND RHYTHMS 2 Units
Prerequisite: None. (Not open to students who have received credit for Early Childhood Education 24.)
Acceptable for credit: CSU
18 hours lecture, 54 hours laboratory
Pre-professional course for elementary education majors, recreation majors, and recommended for physical education majors. Elementary and lead-up games for team sports, stunts, tumbling, and elementary rhythms and dances.

PET 25 THEORY OF SOFTBALL 2 Units
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
36 hours lecture
This course is designed to develop a thorough understanding of softball. Special emphasis on individual skills, position play and team strategy.

PET 26 THEORY OF VOLLEYBALL 2 Units
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
36 hours lecture
This course is designed to develop a thorough understanding of the many aspects of the game of volleyball: training/conditioning - individual techniques, offense and defense rules. A major emphasis will be placed on the importance of individual proficiency and team play. This course may be taken twice for credit.

PET 28 THEORY OF SOCCER 2 Units
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
36 hours lecture, 18 hours laboratory
This course is a detailed approach to the current problems and trends in soccer. Special emphasis will be placed on rules, techniques and tactics. This course may be taken twice for credit.

PET 49 SPECIAL STUDIES IN PHYSICAL EDUCATION 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU, UC—See Counselor
CRC's PHYSICS program consists of a three-semester calculus-based physics course and a two-semester non-calculus general physics survey course. Both sequences present physics as a dynamic, exciting field and are taught by experienced and dedicated instructors who consider teaching a primary responsibility. Laboratories are a central, not subservient, part of the courses. The sequences are designed to meet transfer requirements for majors in the physical and life sciences.

The courses in ASTRONOMY and PHYSICAL SCIENCE are offered as part of the general education program at CRC. The physical science course includes a laboratory and complies with general education transfer requirements. Both courses are an excellent way for the liberal arts student to gain an appreciation of scientific knowledge and methods.

Career Options
CALCULUS-BASED PHYSICS:
Physicist; Engineer; Meteorologist;
Oceanographer; Geologist;
Physical Scientist; Astronomer;
Chemist; Architect

NON-CALCULUS-BASED PHYSICS:
Pre-Med; Allied Health;
Life Science fields

Highlights
Modern and well-equipped laboratories
Small class size
Evening session physics sequence completion
A Mathematics, Engineering, and Science Achievement (MESA) program

Physics

4A MECHANICS OF SOLIDS AND FLUIDS 4 Units
Prerequisites: Mathematics 9A with a grade of "C" or better, and completion of or concurrent enrollment in Mathematics 9B.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture, 54 hours laboratory
The course examines the fundamentals of mechanics: vectors, kinematics, Newton’s laws, vibrations, conservation principles, fluids, and gravitation. This course is recommended for students studying engineering, physics, chemistry, architecture, and mathematics. (CAN PHYS 8)
(with 4B and 4C CAN PHYS SEQ B)

4B ELECTRICITY AND MAGNETISM 4 Units
Prerequisites: Physics 4A and Mathematics 9B both, with a grade of "C" or better.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture, 54 hours laboratory
This course examines the fundamentals of electricity and magnetism: electric and magnetic fields, capacitors, dielectrics, inductance, magnetic materials, DC and AC circuit analysis, Maxwell’s equations, electromagnetic waves, theory and operation of oscilloscopes and multimeters. This course is recommended for students studying engineering, physics, chemistry, architecture and mathematics. (CAN PHYS 12)
(with 4A and 4C CAN PHYS SEQ B)
4C HEAT AND LIGHT 4 Units
Prerequisites: Physics 4A and Mathematics 9B with a grade of "C" or better.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture, 54 hours laboratory
This course examines the fundamentals of heat, waves, and modern physics: temperature and heat, kinetic theory of gases, thermodynamics, sound, light, reflection and refraction, interference and diffraction, optics, lasers, special relativity, quantum physics, and atomic physics. This course is recommended for students studying engineering, physics, chemistry, architecture, and mathematics.
(CAN PHYS 14) (with 4A and 4B, CAN PHYS SEQ B)

5A GENERAL PHYSICS 4 Units
Prerequisite: Mathematics 20 or high school trigonometry course.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture, 54 hours laboratory
Topics and concepts in classical physics including statics, kinematics, Newton’s laws, conservation laws, rigid body motion, simple harmonic motion, mechanics of solids and fluids, waves, sound, heat and thermodynamics.
(CAN PHYS 2) (with 5B, CAN PHYS SEQ A)

5B GENERAL PHYSICS 4 Units
Prerequisite: Physics 5A.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture, 54 hours laboratory
Topics in classical physics including electrostatics, electric fields, currents, magnetic fields, electromagnetic induction, Maxwell’s equations, radiation, geometrical and physical optics, atomic and nuclear structure.
(CAN PHYS 4)
(with 5A, CAN PHYS SEQ A)

10 CONCEPTUAL PHYSICS 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture
This course provides a conceptual overview of Newtonian and modern physics for non-science and science students alike. The conceptual or non-mathematical approach to physics is tied to the student’s personal experience in the everyday world, so that the student learns to see physics not as a classroom or laboratory activity, but as a part of his or her surroundings. The course is open to all students with no previous physics course.

11 BASIC PHYSICS 3 Units
Prerequisite: None.
Advisory: Mathematics 20 (may be taken concurrently) or high school trigonometry with a grade of "C" or better.
Acceptable for credit: CSU
54 hours lecture
This course is a survey course for science, engineering, mathematics, architecture, and computer science majors who have had no previous physics courses and plan to continue with Physics 4A or 5A. The course will develop the math and science background and the problem-solving skills necessary for success in Physics 4A or 5A. Material covered will include math review, vectors, and basic mechanics (kinematics, Newton’s Laws, energy). Students who have taken Physics 10 cannot get transfer credit for Physics 11.

49 SPECIAL STUDIES IN PHYSICS 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU, UC—See Counselor

Physical Science

1 INTRODUCTION TO PHYSICAL SCIENCE 4 Units
Prerequisite: None.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture, 54 hours laboratory
This is an integrated, interdisciplinary course which introduces the non-science major student to the physical sciences. Areas covered will include astronomy, physics, chemistry and geology. The purpose of the course is to trace the development of modern scientific concepts, to analyze a number of natural phenomena, and to explore the significance of science.

49 SPECIAL STUDIES IN PHYSICAL SCIENCE 1-3 Units
(See catalog p. 21)
Acceptable for credit: UC—See Counselor

Astronomy

1 INTRODUCTION TO ASTRONOMY 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course is a descriptive course in general astronomy treating the nature and evolution of the solar system, stars, galaxies, cosmology and life in the universe.

2 ASTRONOMY LABORATORY 1 Unit
Prerequisite: Completion of or concurrent enrollment in Astronomy 1.
Acceptable for credit: CSU, UC
54 hours laboratory
This course offers practical use of a telescope for both visual observation and astrophotography; identification of constellations; and experience in the collection of scientific data.

49 SPECIAL STUDIES IN ASTRONOMY 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU, UC
Area of Careers and Technology

Plant Science

This CRC program offers courses designed for students in the Agriculture Business and Horticulture programs.

Career Options
See career options in Agriculture Business and Horticulture

Highlights
Courses included in two degree programs and a variety of certificates

Plant Science

1 INTRODUCTION TO PLANT SCIENCE 3 Units
(formerly Plant Science 51, Introduction to Plant Science)
Prerequisite: None.
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course is designed to provide the students with a working knowledge of the fundamental structures and processes of plants. Principles to be applied cover plant structures, physiology, heredity, environmental relationship to growth, adaptation, and management of crops. Techniques of research, exploration of plant growth, and identification of economical crops will be included.

2 SOILS AND PLANT NUTRITION 3 Units
(formerly Plant Science 64, Soils & Plant Nutrition)
Prerequisite: None. (Not open to students who have received credit for Horticulture 2)
Advisory: Horticulture 1
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course provides a basic knowledge of the physical, chemical, and biological properties of soils and their characteristics. The course includes factors of: fundamental soil properties, soil and plant relationships, principles of soil formation, fertilizers and soil management, salinity, pH, erosion management, and non-agricultural uses. (CAN REC 8)

49 SPECIAL STUDIES IN PLANT SCIENCE 1-3 Units
(See catalog p. 21)
Acceptable for credit: UC

54 NURSERY PRACTICE AND MANAGEMENT 3 Units
Prerequisite: None
Advisory: Completion of or concurrent enrollment in Horticulture 1
54 hours lecture, 18 hours laboratory
The practices and management of both wholesale and retail nurseries. This course covers marketing, propagation and cultural practices of herbaceous and woody plants, and business management practices required in establishing and operating a nursery.

53 VEGETABLE AND FIELD CROPS 3 Units
Prerequisite: None
Advisory: Completion of or concurrent enrollment in Plant Science 1 or Horticulture 1
36 hours lecture, 54 hours laboratory
This class involves the study of both the theoretical and practical aspects of vegetable and field crops that are grown in the Sacramento area. An emphasis will be placed on production practices in growing a crop from seed through marketing of the final crop. Laboratory activities and field trips will provide actual experience in crops studied.
67 AGRICULTURE CHEMICALS/ SAFETY AND CALIBRATION  3 Units
Prerequisite: None
Advisory: Plant Science 1
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
The purpose of this study is to train individuals in techniques of chemical application, and to provide for the proper, safe, and efficient use of pesticides essential for production of food and fiber and for the protection of public health and environment, pesticide clarification, laws and regulations, foundations, calibration of and types of equipment for ground application and effective pesticide placement. A must for students preparing for state licensing as a pest control applicator.

71 VITICULTURE (GRAPE AND WINE PRODUCTION)  3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
Production of grapes, current status of grape and wine industry; classification of grapes and wines, history and development of wine industry. Principles and practices of vineyard selection, development, establishment and other cultural practices, including training and pruning. Principles of vine physiology and morphology as related to responses of cultural practices. Wine quality will also be explored.
Vineyard management, health and economics will be included. Technological study of winery equipment, location, and operation; techniques in analyzing and evaluating grapes and wine will be made.

73 LANDSCAPE IRRIGATION  3 Units
Prerequisite: None
Advisory: Plant Science 1 or Horticulture 51
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
Practical design and installation of sprinkler and trickle irrigation systems for commercial and residential landscapes.

74 WEEDS AND WEED CONTROL  3 Units
Prerequisite: None
Advisory: Plant Science 1
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This course deals with the identification, life histories, and control of common, noxious and poisonous California weeds. The study will emphasize areas not included in the licensing procedures of agriculture pest control advisors and applicators. Fundamentals of chemical, biological, and physical control of weeds will be discussed.

82 PASTURE MANAGEMENT  1 Unit
Prerequisites: None.
Acceptable for credit: CSU
18 hours lecture
Identification of pasture plants important in livestock and horse feeding. Management practices commonly employed to produce pastures and forages, including land preparation, irrigation, grazing, fencing, fertilization and reseeding.

83 PLANT DISEASE AND PEST CONTROL  3 Units
Prerequisite: None
Advisory: Plant Science 1
Acceptable for credit: CSU
54 hours lecture
This course deals with the study of common agricultural pests, their identification, life cycles and the type of damage caused by pests, identification of diseases and damage they inflict on local crops. The student is presented with a working knowledge of cultural, physical, biological, and chemical methods used to prevent and control agricultural pest damage. Emphasis will be placed on licensing information required of agriculture pest advisors and applicators.

87 INTEGRATED PEST MANAGEMENT  3 Units
Prerequisite: None
Advisory: Plant Science 74 and 83
Acceptable for credit: CSU
54 hours lecture
This study of integrated pest management includes principles of controlling pests by biological, cultural, physical, mechanical, radiation phenomena, genetic resistance and chemical control methods. Cost and effects as related to ecosystem, society and economics will be included. Pest monitoring and examples of integrated pest management in local areas and California will be reviewed. As this is the trend for the future, students and growers, as well as pest control advisors, will find this study valuable, as well as an aid in preparing for state licensing as pest control advisors.
Area of Humanities & Social Science

**Political Science**

The study of political science involves not only the examination of the structure of government and political systems but the examination of the interaction of individuals and institutions within those systems. These courses offer valuable insight into events on the local, state, national and international levels and they also encourage involvement of the citizenry.

Career Options
- Administrator; Attorney; Budget Analyst;
- Businessperson; Campaign Aide/Elected Official; City Planner; Foreign Service Officer; Government Worker; Legislative Aide/Lobbyist; Military Officer; Occupational Analyst;
- Personnel Manager; Political Economist;
- Political Scientist; Public Information Officer;
- Public Relations Specialist;
- Public Opinion Surveyor;
- Researcher/Research Analyst

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Highlights
- Courses in both American and foreign political structures
- Widely traveled and internationally astute instructional staff
- Insightful analysis of international events
- Suggestions/contacts for student involvement in the political process

**Pre-Law Education**

Pre-law, contrary to common belief, is not a major but rather a term that describes a student interested in applying for admission to a law school.

Because overall GPA is important in applying for admission to a law school, a pre-law student should consider a major which he/she enjoys and can do well. It is advisable to consider the major as an alternative to law school or one which can be used in conjunction with the law degree. Law schools are looking for individuals who have a high level of writing competence; good analytical skills; intellectual discipline; breadth in humanities, sciences and social sciences; and a general understanding of the business world. Most law schools require a baccalaureate degree. The Law School Admission Test (LSAT) is required. A pre-law student needs to plan a course of study in cooperation with a counselor in the Counseling Center.
1 INTRODUCTION TO GOVERNMENT: UNITED STATES
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
An introduction to Political Science, American government and politics. Structured to promote political and analytical understanding and thinking regarding American politics and government. Areas of concentration include principles, institutions, problems, processes, theory, philosophy, and ideology. Satisfies the State requirement regarding the Constitution, American Institutions, and State and Local Government.
(CAN GOVT 2)

2 INTRODUCTION TO GOVERNMENT: FOREIGN
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
Comparative study of political systems, ideologies, institutions, cultures, and development of selected foreign governments. Special emphasis placed on the cultural and social dimensions of political behavior and attitudes in connection with governmental and political practices. The governments and political systems selected generally include Great Britain, France, the Federal Republic of Germany, the former Soviet Union, and representative Third World nation states.

10 INTERNATIONAL RELATIONS 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
Introduction to international relations and a survey of the nation-state system, techniques of interaction, the issue of war, nationalism, power alignments, international actors, transnational movements, diplomacy, political economy, and perceptions in world politics. Particular emphasis is placed on an analysis of the world outlook of the former Soviet Union, the United States, the major Western Allies, China, and the Third World.

49 SPECIAL STUDIES IN POLITICAL SCIENCE 1-3 Units
Acceptable for credit: CSU, UC
(See catalog p. 21)
Area of Humanities & Social Science

Psychology

Psychology concerns itself with the study of behavior of humans and other animals. Part of its appeal and fascination is the fact that it involves both pure science and the practical application of science to matters of everyday life. Those pursuing psychology as a field of study will find many career options centering around helping others understand, predict and control their own behavior and the behavior of others. Training in psychology also provides a valuable foundation for other professions that deal with people.

Career Options
Administration; Behavior Analyst; Childcare Worker; College Professor; College Counselor; Social Services Counselor; Human Services Specialist; Marketing Specialist; Personnel Analyst; Probation Officer; Psychiatric Tech/Aide; Psychologist; Psychometrist; Public Survey; Research Therapist; Training/Development; Specialist; Ward Attendant; Youth Supervisor

Some career options may require more than two years of college study.

Highlights
Exemplary instructional staff that includes authors and researchers
A wide range of course offerings including psychology of women and human sexuality
Psychology courses complement AA degrees and/or certifications in many other fields: communications media, early childhood education, human services, interdisciplinary studies, marketing, medical assisting, teacher assisting, etc.

Psychology

1 GENERAL PRINCIPLES 3 Units
Prerequisite: None. Acceptable for credit: CSU, UC
54 hours lecture
An introduction to the scientific study of human behavior. Topics include Personality, Abnormal Psychology, Psychotherapy, Social Psychology, Intelligence, Lifespan Development Psychology, Cognition and Memory, Conditioning and Learning Motivation, Emotion, Biological Determinants, Consciousness, and Applied Psychology. Designed for psychology majors, behavioral science majors, and other students who desire a comprehensive overview of general principles of contemporary psychology. (CAN PSY 2)

2 BIOLOGICAL PSYCHOLOGY 4 Units
Prerequisite: None. Acceptable for credit: CSU, UC
54 hours lecture, 54 hours laboratory
This course offers a survey of the physiological determinants of behavior. The course content focuses on brain and nervous system interactions, central nervous system pathologies, endocrine function, and the biochemistry of mental disorders. Psychology 2 is appropriate for students majoring in psychology, medicine and the biological sciences. The laboratory experience complements and amplifies the lectures.
3 SOCIAL PSYCHOLOGY 3 Units
Prerequisite: None. Acceptable for credit: CSU, UC
54 hours lecture
An introduction to the study of human interaction. The focus is on the individual within a social context. Such topics as social perception, interpersonal attraction, prejudice and discrimination, attitude change, prosocial behavior, aggression, social influence, power and leadership, exchange and strategy, interaction in groups, and the physical and social environment will be explored.

4 RESEARCH METHODS IN PSYCHOLOGY 3 Units
Prerequisite: None Acceptable for credit: CSU, UC
54 hours lecture
This course provides an overview of the methodologies used in experimental and quasi-experimental research in psychology. Students will learn how to design and conduct research, including formulating hypotheses, reviewing the literature, evaluating ethical issues, selecting methodologies, organizing data, applying statistics and writing reports.

5 INTRODUCTORY STATISTICS FOR THE BEHAVIORAL SCIENCES 3 Units
Prerequisite: Mathematics 53 with a grade of "C" or better, or eligibility as determined by the assessment process. Acceptable for credit: CSU, UC—See Counselor
54 hours lecture
This course covers the application of descriptive and inferential statistics to experimental findings in psychology and other behavioral sciences from an applied rather than a theoretical perspective.

7 HUMAN BEHAVIOR 3 Units
Prerequisite: None. Acceptable for credit: CSU, UC
54 hours lecture
An introduction to the study of human behavior. The course provides a comprehensive overview of the subject matter of psychology while emphasizing the application of psychological thought and research to personal and social issues. Particular attention is paid to the individual's development through the lifespan and his or her interaction with such "social arenas" as family, friends, work, school, and community.

11 LABORATORY FOR PSYCHOLOGY 1 Unit
Prerequisite: None
Acceptable for credit: CSU, UC
54 hours laboratory
This course complements and amplifies the lectures from both Psychology 1 (General Principles) and Psychology 7 (Human Behavior) by providing laboratory activities correlated with each topic area presented in class. These activities provide opportunities for active data gathering, hypothesis testing and further investigation of psychological topics and principles. While the course is intended to amplify topics in Psychology 1 and 7, the course is open to everyone. Concurrent enrollment in Psychology 1 or Psychology 7 is not required.

24 MARRIAGE, THE FAMILY AND ALTERNATIVES 3 Units
Prerequisite: None. (Not open to students who have received credit for Family and Consumer Science 33.) Acceptable for credit: CSU
54 hours lecture
Overview of the elements involved in building, maintaining and surviving paired relationships, both traditional and newer partnerships and relationship styles. Includes choosing each other, types of commitment (love, romance, sex and security), dealing with conflict, parenting, crisis and family disorganization, such as starting over, and changes confronting the individual throughout life's stages.

25 HUMAN SEXUALITY 3 Units
Prerequisite: None. Acceptable for credit: CSU, UC
54 hours lecture
A survey of the biological, psychological and social aspects of human sexual behavior. The course provides factual, up-to-date nonjudgmental information designed to dispel myths and facilitate problem identification and problem-solving. Topics include sexual anatomy and physiology, conception and childbirth, contraception, sexual development, variations and deviations, sex research, sexually transmitted diseases, sex therapy, intimacy and relationships, and sexual victimization.

28 PSYCHOLOGY OF WOMEN 3 Units
Prerequisite: None. Acceptable for credit: CSU, UC
54 hours lecture
A course for men and women that highlights the psychological, biological and social influences on the behavior of women.

34 CHILD DEVELOPMENT 3 Units
Prerequisite: None. Acceptable for credit: CSU, UC—See Counselor
54 hours lecture
A survey of human, social, physical and intellectual development from conception through adolescence.

40 PRINCIPLES OF INTERPERSONAL RELATIONS 3 Units
Prerequisite: None. Acceptable for credit: CSU
54 hours lecture
The study of principles involved in effective interpersonal relationships. Includes such topics as interpersonal feedback, self-disclosure, the role of emotions in relationships, the act of listening and the ability to challenge others toward growth and productivity. The focus is on concepts useful to the student in his/her face-to-face relationships at home, school, or work.

49 SPECIAL STUDIES IN PSYCHOLOGY 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU, UC
Area of Communication, Visual & Performing Arts

Radio Production

DEGREE A.A.—Communications Media: Radio Production

Concentration on the audio portion of broadcasting, with emphasis on performing, production and knowledge of music. Students will learn to prepare both professional live radio programs for the campus station, and tapes to be played over local commercial stations. This option can lead to an entry-level position with a radio station.

Career Options
Disc Jockey; Announcer; Sportscaster; Studio Technician; Newscaster; Audio Technician

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Highlights
Internship opportunities in local radio stations
Practical experience in the newly equipped and remodeled campus radio station, KCOS

DEGREE
A.A.—Communications Media, Radio Production
CODE #1062

REQUIRED PROGRAM ................................. Units
CMED 5  Mass Media and Society .......................... 3
CMED 26 History of American Radio ...................... 1
CMED 56 Radio Studio Operations ...................... 3
CMED 62 Introduction to Telecommunications .......... 3
CMED 63 Broadcast Writing and Announcing........... 3
CMED 73 Broadcast Journalism ........................ 3
CMED 66 Intro to Radio Workshop (May be taken twice) .... 3
CMED 76 Radio Workshop (Must be taken twice) ........ 2/2
CMED 86 Automated Radio ................................ 3
CIS 1 / JOUR 1 Computer Familiarization ............... 1
SPEE 7 Voice and Diction ................................ 3

Plus three (3) units selected from: Comm Media 54, 60, 64, 65, 86, 98; Journalism 20A, 54;
Marketing 22; Speech 1, 8 .................................. 3
TOTAL UNITS REQUIRED ................................. 30

Suggested Electives: None.

General Education Graduation Requirements - see page 18.

See Communications Media section for class offerings in this program.
Area of Business & Family Science

Real Estate

DEGREE A.A.—Real Estate
CERTIFICATES Real Estate Broker
Real Estate Sales
Applications of Desktop G.I.S. (Business/Marketing emphasis)
(see page 259)

CRC offers, in addition to a Real Estate A.A. degree, a variety of courses available which satisfy State of California prerequisites for Real Estate Salesperson and Real Estate Broker examinations.

Career Options
Real Estate Agent; Real Estate Broker; Real Estate Appraiser

Some career options may require more than two years of college study.

Highlights
Instruction by trained, working real estate professionals
Preparation for State of California real estate license examinations
Training in one of the most lucrative careers in today's world
A lab with tutorial assistance

APPLICANTS FOR THE REAL ESTATE SALESPERSON EXAM
To qualify to take an examination for a Real Estate Salesperson License, an applicant must submit evidence (transcripts) of having completed a college-level course in Real Estate Principles.

In addition to Real Estate Principles the applicant must also (either when qualifying for the examination, when applying for the original license or within eighteen months after license issuance) submit evidence of having completed TWO additional basic real estate courses from the following CRC course offerings. (It is recommended that Real Estate Practice be one of the courses selected.)

- Accounting 1A
- Business Law 18A
- Introduction to Escrow Procedures
- Legal Aspects of Real Estate
- Real Property Management
- Real Estate Appraisal
- Real Estate Economics
- Real Estate Finance
- Real Estate Practice

APPLICANTS FOR THE REAL ESTATE BROKER EXAMINATION
An applicant for the Broker examination must have completed eight college-level courses, in addition to the experience/educational requirements. These eight courses should include the following CRC course offerings:

- Real Estate Principles
- Real Estate Practice
- Legal Aspects of Real Estate
- Real Estate Finance
- Real Estate Appraisal
- Real Estate Economics or Accounting 1A
- and two courses from the following group: *
  - Business Law 18A
  - Real Property Management
  - Introduction to Escrow Procedures
  - Advanced Appraisal

* If applicant completes both Accounting and Real Estate Economics, only one additional course is required.
DEGREE
A.A.—Real Estate
CODE #1223

REQUIRED PROGRAM ................................................. Units
Business Core:
ACC 1A Financial Accounting ................................................. 4
BUS 8 Business Communications ................................................. 3
BUS 15 Managing Diversity in the Workplace ........................................... 3
BUS 18A Business Law ......................................................... 3
BUS 20 Introduction to Business ................................................. 3
BUS 41 Introductory Keyboarding ................................................. 1.5
BUS 61 Principles of Marketing ................................................. 3
CIS 3 Introduction to Computer Information Science or
Three (3) units to include
CIS 1/JOUR 1 Computer Familiarization - 1 unit and
Two (2) additional units selected from:
CIS 11A, 12A, 13A, 14A, 15A, 16A, 17A, 18A
ECON 1A Principles of Economics or
ECON 14/BUS 14 Concepts of Personal Finance or
ECON 55 Introduction to Economics ........................................... 3

Real Estate Option:
RE 19 Principles of Real Estate ................................................. 3
RE 81 Legal Aspects of Real Estate ................................................. 3
RE 82 Real Estate Practice ......................................................... 3
RE 83 Real Estate Finance ......................................................... 3
RE 84 Real Estate Appraisal ......................................................... 3
RE 95 Real Property Management ................................................. 3
TOTAL UNITS REQUIRED .................................................. 44.5

Suggested Electives:
Marketing 22; Management 1, 50; Real Estate 85, 86, 87, 94.

General Education Graduation Requirements - See page 18.

CERTIFICATE
Real Estate Broker
CODE #1224

REQUIRED PROGRAM .................................................. Units
RE 19 Principles of Real Estate ................................................. 3
RE 81 Legal Aspects ......................................................... 3
RE 82 Real Estate Practice ......................................................... 3
RE 83 Real Estate Finance ......................................................... 3
RE 84 Real Estate Appraisal ......................................................... 3
RE 85 Real Estate Economics or
ACC 1A Financial Accounting ................................................. 3-4
RE 95 Real Property Management ................................................. 3
Plus Three (3) units selected from the following ........................................... 3
Real Estate 86, 87, 94; Business 18A
TOTAL UNITS REQUIRED .................................................. 24-25

CERTIFICATE
Real Estate Sales
CODE #1225

REQUIRED PROGRAM .................................................. Units
RE 19 Principles of Real Estate ................................................. 3
RE 82 Real Estate Practice ......................................................... 3
Plus Three (3) units selected from ........................................... 3
Real Estate 81, 83, 84 or 95
TOTAL UNITS REQUIRED .................................................. 9

Real Estate

49 SPECIAL STUDIES IN REAL ESTATE 1-3 Units
(See catalog p. 21)

19 PRINCIPLES OF REAL ESTATE 3 Units
Prerequisite: None.
Acceptable for credit: CSU
54 hours lecture
This fundamental real estate course covers the basic laws and
principles of California real estate, giving understanding,
background, and terminology necessary for advanced study in
specialized courses. This course is required by the California
Department of Real Estate prior to taking the real estate
salesperson’s examination.

81 LEGAL ASPECTS OF REAL ESTATE 3 Units
Prerequisite: None.
Advisory: Real Estate 19
54 hours lecture
This course is a study of California real estate law. Topics
covered include rights incident to property ownership and
management agency; contracts, and application to real estate
transfer; conveyance; probate proceedings; trust deeds and
foreclosures; as well as recent legislation governing real estate
transactions. Completion of the course applies toward the
educational requirements for the broker’s examination.

82 REAL ESTATE PRACTICE 3 Units
Prerequisite: None.
Advisory: Real Estate 19
54 hours lecture
This course covers practices and techniques of the broker and
salesperson, including listing, prospecting, advertising, selling,
escrow procedures, financing, exchanges, property manage-
ment and leases, land utilization and development, public
relations and professional ethics in real estate business. Course
applies toward California Department of Real Estate education
requirement for the Broker’s Examination.

83 REAL ESTATE FINANCE 3 Units
Prerequisite: None.
Advisory: Real Estate 19
54 hours lecture
This course is an 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.
The course applies toward the educational requirements for the
Broker’s Examination.
84 REAL ESTATE APPRAISAL  3 Units
Prerequisite:  None.
Advisory:  Real Estate 19
54 hours lecture
This course covers the purposes of appraisals; the appraisal process; and the different approaches, methods and techniques used to determine the value of various types of property. The course emphasizes residential single family properties and applies toward the educational requirement for the Real Estate Broker's License, and Licensed and General Appraiser's License.

85 REAL ESTATE ECONOMICS  3 Units
Prerequisite:  None.
Advisory:  Real Estate 19
54 hours lecture
This course covers nature and classification of real estate and real estate investments, economic development of real property, real estate cycles and market trends. Governmental and private sector influence on the economics of real estate is covered. It is recommended that this course be taken last in the real estate course series.

86 INTRODUCTION TO ESCROW PROCEDURES  3 Units
Prerequisite:  None.
Advisory:  Real Estate 19
54 hours lecture
This course covers the functions and responsibilities of the escrow holder, including actual preparation of escrow instructions and documents in a typical real estate transaction. Audit, disbursement, the issuance of closing statements and analysis of title insurance policies are covered.

87 ADVANCED ESCROW PROCEDURES  3 Units
Prerequisite:  Real Estate 86.
54 hours lecture
This course covers unusual and difficult types of escrow, including the evaluation of possible solutions with emphasis on real estate loans, financing instruments and exchanges.

94 ADVANCED APPRAISAL  3 Units
Prerequisite:  Real Estate 84.
54 hours lecture
This course discusses advanced appraisal concepts with an emphasis on market and income analysis, capitalization techniques, rate derivation, compound interest tables, cost and sales comparison approaches; and the appraisal of specific income properties such as apartments, office buildings, shopping centers and industrial properties.

95 REAL PROPERTY MANAGEMENT  3 Units
Prerequisite:  None.
54 hours lecture
This course covers the day-to-day operation and management of real property including: marketing procedures, leases, maintenance, insurance, accounting, records, public and human relations, employer responsibilities, selection of personnel and agreements.
Area of Science, Mathematics & Engineering

Science

DEGREE A.A.—Science & Mathematics, General

CERTIFICATE Applications of Desktop GIS

Areas of Study:
• Biology . . page 67
• Chemistry . . page 83
• Engineering . . page 132
• Environmental Technology . . page 147
• Geography . . page 169
• Geology . . page 173
• Physics, Physical Science, Astronomy . . page 246

CRC students may choose courses in the various disciplines of science to meet any of several objectives. Courses are designed to:

• Prepare students for transfer and continuation of studies at other colleges or universities (chemistry, biology, medicine, etc.)
• Meet general education requirements for non-science majors
• Prepare students for immediate entry into a science-based technology career
• Provide for career advancement and continuing education

Many courses include hands-on practical experience and/or opportunities for work experience in local industry and business.

The student, in consultation with a counselor, should choose science courses to meet his or her program, transfer, or general education requirements. The Counseling Center also has information regarding science requirements for transfer to other four-year institutions.

DEGREE
A.A.—Science & Mathematics, General
CODE #1230

REQUIRED PROGRAM ............................................................. Units
Twenty (20) Units of Science & Mathematics:
Math 53 or higher level math course,
One course in Physical Science*
One course in Biological Science*

Plus courses selected from:
Anthropology (physical), Astronomy, Biology, Chemistry, Engineering, Environmental Technology (1 or 4), Geography (physical), Geology, Mathematics (Mathematics 53 or higher), Physical Science, Physics, and Statistics.

TOTAL UNITS REQUIRED ............................................................. 20

General Education Graduation Requirements - See page 18.

This science program provides the lower division work necessary for transfer to a university to complete a bachelor's degree in several pre-professional programs.
CERTIFICATE

Applications of Desktop GIS

CODE #1432

A geographic information system (GIS) is a database management system that facilitates the collection and the analysis of geographic data from both the physical and cultural environments. This interdisciplinary certificate program is designed to equip students to use this powerful new technology to display, model and analyze spatial data of all types to assist with problem solving and decision making processes.

REQUIRED PROGRAM .......................................................... Units

Geographic Information Systems courses:
Six to seven (6-7) units selected from: ........................................ 6-7
GEDG 19A Fundamentals of Geographic Info. Systems (1)
GEDG 18B Introduction to Using Desktop GIS (1)
GEDG 19C Projects Using Desktop GIS (1)
GEDG 9 Intro. to Geography Information Systems (4)
GEDG 14 Intro. to the Global Positioning Systems (1)
GEDG 27A Introduction to GIS Programming (2)

Spatial courses:
Three (3) units selected from ....................................................... 3
GEDG 1 Elements of Physical Geography (3)
GEDG 2 Elements of Cultural Geography (3)
GEDG 3 Intro. to Computer Information Science .................. 3

Spatially related courses:
Six (6) units selected from one of the following concentrations: ....6
Anthropology:
ANTH 1 Physical Anthropology (3)
ANTH 2 Cultural Anthropology (3)
SOC 1A Introduction to Sociology (3)
SOC 1B Social Problems (3)

Biological Sciences:
BIOL 1A Principles of Biology (5)
BIOL 12 Foundations of Biology (3)
BIOL 14 Environmental Biology (3)

Computer Science:
CIS 13A Database Management (1)
CIS 13B Intermediate Database Management (1)
CIS 32A Introduction to Structured Programming (4)
CIS 37 Database Programming (3)
CIS 39 Object Oriented Programming (4)
CIS 41 Algorithm Design/Program Solving

Environmental Technology:
ENVT 1 Introduction to Environmental Technology (3)
ENVT 4 Environmental Biology (3)
ENVT 15C Air Quality Issues (1)
ENVT 20A Pollution Prevention (1)
ENVT 20B Pollution Control (1)
ENVT 25 Water Resources (4)

Earth Science:
GEDG 5 Economic Geography (3)
GEDG 6 Weather and Climate (3)
GEDG 10 World Regional Geography (3)
GEDG 21 Geography of California (3)
GEDL 1 Physical Geology (3)
GEDL 2 Physical Geology Laboratory (1)
GEDL 8 Earth Science (3)
PHY SCI 1 Introduction to Physical Science (4)

Plant Science:
HORT 1 Introduction to Horticulture (3)
HORT 2 Soils and Plant Nutrition (3)
PLT SCI 1 Introduction to Plant Science (3)

Business/Marketing:
MKT 20 Principles of Marketing (3)
MKT 26 Advertising (3)
MKT 51 International Marketing (3)
RE 19 Principles of Real Estate (3)
RE 84 Real Estate Appraisal (3)

TOTAL UNITS REQUIRED .................................................................... 18-19

PRE-PROFESSIONAL

HEALTH SCIENCE EDUCATION

Students planning to attend a dental, medical, veterinary or optometry school are not required to complete a prescribed undergraduate major. Many students have the misconception that "predental," "pre-med," etc., are academic majors. They are not. A student's undergraduate degree might be achieved in anything, as long as appropriate courses required for dental/medical/veterinary/optometry school admission are completed. Professional schools are looking for well-rounded students who have taken courses in the humanities and social sciences and who have participated in school activities and community work. Generally, admission criteria include: completion of required courses; cumulative GPA; science courses GPA only; extracurricular activities, including work experience related to the health science specialization; test scores; application, which includes a personal statement; letters of recommendation; and an interview.

In addition to a good GPA, a student must be self-motivated, have social concern, communication skills and maturity. An applicant, however, does not need a 4.0 GPA for admission, as a GPA is an impersonal reflection of a student's ability to handle university work.

Students planning to enroll in a professional health science school may complete at Cosumnes River College: (1) transfer general education courses, (2) transfer courses for the student's chosen major, (3) a basic core of courses which is required for all health science students, and (4) other courses required for the chosen specialty, i.e., dental, medical, optometry, and/or veterinary.

The basic core courses are:

Biology 1A, 3
Chemistry 1A, 1B
English 1A, 1B
Physics 5A, 5B
Math 20 (or high school equivalent)

Pre-dental

Although a student may be admitted to a dental school upon completion of 90 units, a baccalaureate degree is recommended. A student should have at least a 3.0 GPA. The Dental Aptitude Test (DAT) is a requirement.

In addition to the basic core courses, the required Psychology 1 and 3 and a minimum of 12 units of social sciences, humanities, and foreign languages may be completed at Cosumnes River College.

Pre-medical

Although a student may be admitted to a medical school upon completion of 90 units, a baccalaureate degree is recommended. The usual stated minimum GPA is 2.5. In reality, a student with a GPA below 3.0 is almost never accepted, and it is rare to be admitted with a GPA below 3.4. The Medical College Admission Test (MCAT) is a requirement.

In addition to the basic core courses, the required Mathematics 16A and 16B and a full year of organic chemistry (Chem 12A & B) may be completed at Cosumnes River College.
Pre-optometry

Although a student may be admitted to an optometry school upon completion of 90 units, a baccalaureate degree is recommended. The usual stated minimum GPA is 2.0; however, a more realistic minimum is a 3.0 GPA. The Optometry College Admission Test (OCAT) is a requirement.

In addition to the basic core courses, other courses such as Biology 6, 25, 26; Mathematics 16A, 16B; Psychology 1; Statistics 1; humanities courses and social science classes may be required. Please check with your counselor.

Pre-physical therapy

Students may take general education and a basic core of prerequisite courses at Cosumnes River College and transfer to California State University, Fresno, Long Beach or Northridge. Admission into a physical therapy program is very competitive with great weight given to relevant work experience and grade point average earned in the prerequisite courses. Because admission requirements vary among the programs, students are advised to work closely with a counselor to plan for the completion of work experience, general education and a core of basic program courses. Many Physical Therapy programs will be offered at the Master's Degree level only. Check with the counseling department.

The core courses may include:
- Biology 1A, 3, 25, 26
- Chemistry 1A, 1B or Chemistry 2A, 2B
- Physics 5A, 5B
- Psychology 1

Pre-veterinary

It is extremely difficult to gain admission to a veterinary school without being a resident of the state in which the school is located. A California resident, therefore, is virtually restricted to attending the University of California School of Veterinary Medicine at Davis.

Although a student may be admitted to the School of Veterinary Medicine upon completion of 90 units, a baccalaureate degree is recommended. A student with a 2.5 GPA may be considered for admission; however, rarely is a student admitted with a GPA below 3.0. Experience with animals is given heavy consideration. The Graduate Record Examination General Aptitude Section and Advanced Test in Biology are requirements.

In addition to the basic core courses, the required Statistics 1 may be completed at Cosumnes River College.

Science Honors

47C  HONORS SEMINAR IN SCIENCE 1 Unit
Prerequisite: Admission to Honors Program
Acceptable for credit: CSU, UC
18 hours lecture
Honors students will study advanced topics from the area of science and will be expected to do independent investigation into the subject of the particular seminar. (See Honors on catalog pages 20-21).
Area of Humanities & Social Science

**Sign Language Studies**

**CRCo**ffers courses in Sign Language Studies designed to introduce students to American Sign Language. Students learn basic skills to enable them to communicate with members of the deaf community.

Career Options
- Interpreter; Instructor; Human Services Worker; Rehabilitation Counselor

Some career options may require more than two years of college study.

**Sign Language Studies**

1. **AMERICAN SIGN LANGUAGE 1** 3 Units
   - Prerequisite: None.
   - Acceptable for credit: CSU, UC
   - 54 hours lecture.
   - This course is an introduction to American Sign Language (ASL) and the field of deafness. Students will develop basic language skills necessary to communicate with deaf adults in typical day-to-day situations. Emphasis will be placed on receptive ASL skills; however, students will demonstrate expressive ability to complete the course. In-class discussion and demonstration will guide students toward understanding psycho-social and cultural aspects of deafness as well as educational approaches used with deaf children.

2. **AMERICAN SIGN LANGUAGE 2** 3 Units
   - Prerequisite: Sign Language Studies 1.
   - Acceptable for credit: CSU, UC
   - 54 hours lecture.
   - This is an intermediate course in American Sign Language (ASL) designed to further develop students' basic skills. Emphasis is placed on grammatical structures of ASL, topics in the field of deafness, and participation in community-based interaction with deaf people. Students may wish to challenge the prerequisite on the basis of equivalent experience.

3. **AMERICAN SIGN LANGUAGE 3** 3 Units
   - Prerequisite: Sign Language Studies 2.
   - Acceptable for credit: CSU, UC
   - 54 hours lecture.
   - This is an advanced course in American Sign with emphasis on extending signers' abilities to interact in interpersonal contact with deaf people through further development of lexical, syntactical and non-verbal aspects of the language. Students will continue study and discussion of deaf cultural processes through research and community contact assignment.

4. **SPECIAL STUDIES IN SIGN LANGUAGE** 1-3 Units
   - Prerequisite: Concurrent enrollment in Sign Language Studies 1.
   - Acceptable for credit: CSU
   - 54 hours lecture, 9 hours laboratory.
   - A basic course in use of the manual alphabet designed to augment expressive and receptive fingerspelling skills introduced in American Sign Language (ASL) courses. Perceptual strategies of use to hearing adults stressed. Emphasis on recognition of fingerspelling in context. Basic knowledge of American Sign Language required.
Area of Humanities & Social Science

Social Science

DEGREE A.A.—Social Science

The Social Science department offers classes in law and society and special studies in the areas of Mexican-American, Asian, and Native American experiences. These classes provide an excellent background for further study.

In addition to the American Institution (C2) graduation requirement, this program includes 21 units of course work in the following areas: anthropology, economics, geography, history, philosophy, political science, psychology, social science, or sociology. Students who wish to transfer to a four-year college or university should plan their programs to meet general education and lower division major requirements. All students are encouraged to consult with a counselor.

Career Options
Instructor; Social Worker; Researcher

Highlights
Opportunities to build a foundation for interdisciplinary studies

Overview of theoretical and cultural principles

DEGREE
A.A.—Social Science
CODE #1236

Classes used to complete this degree must be in addition to that class used to fulfill the American Institution (C2) graduation requirement.

REQUIRED PROGRAM ............................................................. Units
Twelve (12) units selected from Groups A, B, and C with at least one course from each group:

Group A:
  Anthropology, Geography 2, Philosophy

Group B:
  History, Political Science;

Group C:
  Psychology, Social Science, Sociology ............................ 12

Plus nine (9) units selected from at least two other subject areas in Social Science not used to satisfy Groups A, B, and C above:

Anthropology, Economics, Geography 2, History, Philosophy, Political Science, Psychology, Social Science, and Sociology ........... 9

TOTAL UNITS REQUIRED .................................................... 21

General Education Graduation Requirements - See page 18.
**Social Science**

16  **LAW AND SOCIETY**  3 Units
Prerequisite: None.
(Not open to students who have received credit for Business 16.)
Acceptable for credit: CSU, UC
54 hours lecture
An introduction to the American legal system emphasizing the nature, purpose, sources and functioning of American law but including some comparative analysis of other historical and contemporary legal systems. Emphasis is placed on the evolution of legal concepts as a reflection of the social environment and the role of the judiciary. A theoretical rather than practical viewpoint is used—through analysis of selected cases and legislation in the areas of individualism, socioeconomic groups, the family, the economy, crime, criminal procedure and punishment, church and state separation, the environment, and torts. Not to be taken in place of Business Law 18A when required.

42  **MEXICAN-AMERICANS**  3 Units
IN THE UNITED STATES
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course is a socio-historical examination of Mexican-Americans as a minority group with an emphasis on the impact of political and geographic factors.

44  **ASIAN EXPERIENCE IN AMERICA**  3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This class is an exploration of the rich diversity of Asian-American groups within the United States, with an emphasis on the historical and cultural contributions of both immigrant and refugee populations, including an investigation of socioeconomic, educational, legal and political issues. The students will analyze, compare and contrast, the Asian-American assimilation experience with Latinos, African-Americans, and Native Americans. They will gain an understanding of American ethnocentrism, ethnicity, and racism to help develop a personal foundation of cultural tolerance.

45  **NATIVE PEOPLES OF NORTH AMERICA**  3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course is an introduction to the histories and cultures of various Native American groups. It is comparative in nature and examines the dynamics among Native Peoples, Anglos, Latinos, African Americans, and Asian Americans. Data is presented from both a historical and sociological context focusing on ethnocentrism, forced assimilation, and racism, as applied to America's forgotten minority, and to help the student develop a personal foundation of cultural tolerance.

47B  **HONORS SEMINARS**  1 Unit
IN SOCIAL SCIENCE
Prerequisite: Admission to Honors Program
Acceptable for credit: CSU, UC
18 hours lecture
Honors students will study the movements, trends and philosophies found in the social and behavioral sciences. (See Honors - catalog pages 20-21).

49  **SPECIAL STUDIES**  1-3 Units
IN SOCIAL SCIENCE
(See catalog p. 21)
Acceptable for credit: CSU, UC
Area of Humanities & Social Science

Sociology

CR offers courses in the study of human behavior in society. The discipline is concerned with the study of systems and how individuals live, work and interact within them.

Career Options
Sociologist; Social Worker; Instructor; Probation Officer; Employment Counselor; Urban Planner

Some career choices may require courses beyond the Associate Degree.

Highlights
Practical courses valuable to all students
Well-trained and interesting instructional staff

Sociology

1A INTRODUCTORY SOCIOLOGY 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course is a study of human behavior in society, including social groups, culture, personality, social stratification, social change, collective behavior and social institutions. (CAN SOC 2)

1B SOCIAL PROBLEMS 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course is a survey of social problems in American society. It will examine their causes and evaluate proposed solutions. A special emphasis will be placed on local issues. (CAN SOC 4)

3 MARRIAGE AND THE FAMILY 3 Units
Prerequisite: None
Advisory: Eligibility for English 57 or 71
Acceptable for credit: CSU
54 hours lecture
This course will examine the social, psychological, historical and economic factors relating to the changing family, marriage, remarriage and significant relationships. Exploration of the changing gender roles, the meaning of love and sexuality, dating, communication skills and parenting will also be included.

5 MINORITIES IN AMERICA 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course is a social profile of major American minority groups. It examines the problems of minority assimilation into an “open” society and culture.

7 DRUGS AND SOCIETY 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
A survey course designed for anyone interested in understanding the nature of legal and illegal drug use in our society. Included is an analysis of how drug use affects individuals and families, the economy and society as a whole.

49 SPECIAL STUDIES IN SOCIOLOGY 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU, UC
Area of Communication, Visual & Performing Arts

Speech Communication

DEGREE  A.A.—Organizational Communication
CERTIFICATE  Applied Communication Skills

The role of speech communication in the workplace today has grown in importance, and workplace communication competencies are increasingly in demand. The number one skill identified by employers is the ability to communicate clearly in both oral and written form. The number two skill identified by employers as necessary is the ability to work effectively as a member of a team.

A competitive workplace requires employees to exercise competence in interview skills, professional presentations, written communication, group problem solving, intercultural interactions, conflict management, and analytical reasoning. These skills give students a foundation that can be used in any career path, increasing one's preparation for employment, retention, and promotion.

Career Options
- Public Information; Human Resources Development; Corporate Training;
- Motivational Speaking; Political Speech Writing; Radio & Television; Advertising;
- Public Relations; College & University Instruction; Organizational Administration;
- Negotiation & Mediation Services; Writing for Publication; Personnel Management;
- Customer Service; Social Science Research;
- Corporate Imaging; Campaign Management;
- Marketing; Community Relations; Grant Writing

Highlights
- New Degree and Certificate program
- Transfer requirements simultaneously met while pursuing degree

For additional program information, contact any of our full time faculty:
- Ellen Arden-Ogle  691-7381
- Dan DuBray  691-7493
- Georgine Hodgkinson  691-7172
- Chris Wagner  691-7336

A student who earns a degree in Organizational Communication meets all general education requirements for transfer to the CSU system. And while the name of the department is Speech Communication, it is important to realize that not all courses require students to give speeches. While three of our 13 courses meet the oral communication requirement for general education, the multidisciplinary nature of communication studies offers students an opportunity to explore coursework in critical thinking, social sciences, multicultural studies, and personal development.

Students will find this background helpful and applicable to their everyday pursuits. Students intending to transfer to a university will have a solid base of courses that will interface with further, focused study in a major. For those wishing to pursue a university degree in the field of communication, degrees can be earned with emphasis in the following areas:
- Mass Media Studies
- Broadcast Electronic Communication Arts
- Organizational Communication
- Intercultural Communication
- Visual Communication
- Rhetoric
- Group Dynamics and Communication
- Interpersonal Communication
# DEGREE
A.A.—Organizational Communication

**CODE #1348**

## REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Core Courses:</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPEE 1 Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPEE 13 Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPEE 14 Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPEE 15 Group Discussion</td>
<td>3</td>
</tr>
</tbody>
</table>

### Emphasis 1: Relational Communication
One (1) of the following courses: 3
- SPEE 9 The Communication Experience (3)
- SPEE 10 Interpersonal Communication (3)

### Emphasis 2: Persuasive Messages
One (1) of the following courses: 3
- SPEE 2 Persuasive Speech (3)
- CMED 5/ JOUR 10 Mass Media and Society (3)
- SPEE 3 Argumentation and Debate (3)

### Emphasis 3: Computers in Organizations
CIS 3 Intro. to Computer Information Science (3)
Plus two (2) additional CIS units

### Emphasis 4: Written Communication
- ENGL 1A College Composition (3)
One (1) of the following courses: 3
- ENGL 1C Advanced Composition and Critical Thinking (3)
- BUS 8 Business Communications (3)
- JOUR 20A Newswriting and Reporting (3)
- JOUR 20B Advanced Newswriting and Reporting (3)
- PHIL 2 Critical Reasoning and Composition (3)

### Emphasis 5: Business Practices
One (1) of the following courses: 3
- BUS 18A Business Law (3)
- BUS 16/ SOC SCI 16 Law and Society (3)
- BUS 20 Introduction to Business (3)

### Emphasis 6: Language
Language other than English at 1A or higher level or American Sign Language 1 (3) 3-4

**TOTAL UNITS REQUIRED**: 35-36

## Suggested Electives:
- BUS 41, 42; ECON 1A or 1B; HIST 28; PHIL 5; SPEE 7.

General Education Graduation Requirements - See page 18.

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# CERTIFICATE
Applied Communication Skills

**CODE #1356**

## REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>SPEE 1 Speech Communication</td>
</tr>
<tr>
<td>SPEE 13 Organizational Communication</td>
</tr>
<tr>
<td>SPEE 14 Intercultural Communication</td>
</tr>
<tr>
<td>SPEE 15 Group Discussion</td>
</tr>
</tbody>
</table>

Plus one (1) additional course selected from: 3
- SPEE 2 Persuasive Speech (3)
- SPEE 3 Argumentation and Debate (3)
- SPEE 7 Voice and Diction (3)
- SPEE 9 The Communication Experience (3)
- SPEE 10 Interpersonal Communication (3)

**TOTAL UNITS REQUIRED**: 15

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**Speech Communication**

1. **SPEECH COMMUNICATION** 3 Units
   - Prerequisite: Eligibility for English 57.
   - Acceptable for credit: CSU, UC
   - 54 hours lecture
   - Explore the theory and technique of effective public speaking. Learn ways to research, organize and present clear messages to audiences. Examine and develop good listening habits as you and other classmates give informative and persuasive presentations. (CAN SPCH 4)

2. **PERSUASIVE SPEECH** 3 Units
   - Prerequisite: Eligibility for English 1A.
   - Acceptable for credit: CSU, UC
   - 54 hours lecture
   - This course presents fundamental theories and techniques of persuasion as they occur in various communication contexts. Students develop critical thinking skills by examining message production, analyzing messages and exploring the social impact of persuasion.

3. **ARGUMENTATION AND DEBATE** 3 Units
   - Prerequisite: Eligibility for English 1A.
   - Acceptable for credit: CSU, UC
   - 54 hours lecture
   - This course introduces students to argumentation, critical evaluation of evidence, and reasoning in the context of debate. Intended as a practical course, the fundamentals of proposition analysis, case building and dissent are discussed and applied. (CAN SPCH 6)

4. **FORENSICS LABORATORY** 2 Units
   - Prerequisite: None.
   - Acceptable for credit: CSU
   - 108 hours laboratory
   - A laboratory course for students who wish to participate in intercollegiate forensics competition. Areas of interest include debate, persuasion, oral interpretation, expository speech, impromptu speaking and readers’ theatre. May be taken four times for credit.

5. **VOICE AND DICTION** 3 Units
   - Prerequisite: None.
   - Acceptable for credit: CSU, UC
   - 54 hours lecture
   - Individual speech improvement practice in correct breathing, voice control, and diction. Study of correct pronunciation, enunciation, and voice production. Interpretation of selections chosen by students and instructor. Intended for public speaking, drama and media majors. (CAN DRAM 6)
8 INTRODUCTION TO COMMUNICATION THEORY 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course will introduce the student to the symbolic process of human communication through the study of basic communication models, fundamental theory, and relevant research findings. Emphasis will be placed on achieving an understanding of the communication process, and the process through which researchers in the field add to their existing body of knowledge.

9 THE COMMUNICATION EXPERIENCE 3 Units
Prerequisite: Eligibility for English 57.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture
This course introduces students to basic skills and the fundamental concepts necessary for effective communication in a variety of settings. Special emphasis is placed on practical experiences within groups, facilitation of interpersonal relationships, and methods of conflict resolution.

10 INTERPERSONAL COMMUNICATION 3 Units
Prerequisite: Eligibility for English 57.
Acceptable for credit: CSU, UC
54 hours lecture
Explore communication skills associated with satisfying relationships. Using simulations and structured exercises, students experiment with various approaches to successful communication in person-to-person situations. This course strives to increase an individual's personal communication effectiveness through heightened awareness and greater skill as both a sender and receiver of shared messages.

12 CONTEMPORARY COMMUNICATION TOPICS 1 Unit
Prerequisite: None.
Acceptable for credit: CSU
18 hours lecture
A survey of contemporary communication topics that allows students to choose a particular option from several. Possible options may include, but are not limited to: extemporaneous speaking, intercultural communication in the workplace, communication in the classroom, conflict, principles of visual communication, readers' theatre, parliamentary procedure and decision making techniques. Students may receive one unit of credit in each topic area. Consult class schedule for specific topics offered.

13 ORGANIZATIONAL COMMUNICATION 3 Units
Prerequisite: Eligibility for English 57.
Acceptable for credit: CSU
54 hours lecture
This course is designed to allow students to examine both theoretical and pragmatic essentials of effective organizational messages from preparation and presentation to effective observation and analysis. Students will explore the dynamics of organizational communications in various situations including focus groups, quality control groups, ad hoc committees, conflict negotiation teams and problem solving/decision making groups. The roles of internal and external messages on the communication process and organizational effectiveness will be examined and analyzed.

14 INTERCULTURAL COMMUNICATION 3 Units
Prerequisite: Eligibility for English 57.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture
This course introduces students to the challenges and promises of intercultural communications in the United States. Variations and commonalities in communication patterns across cultures are examined as well as processes and outcomes among persons of different group-based experiential backgrounds. Practical application of factors which influence communication among individuals of different cultures is emphasized.

15 GROUP DISCUSSION 3 Units
Prerequisite: Eligibility for English 57.
Acceptable for credit: CSU, UC—See Counselor
54 hours lecture
Increase your understanding of how communication in small groups is uniquely different from other communication. Enhance your effectiveness in small groups by learning about roles, functions, leadership, and norms. Conflict-solving and decision-making skills are emphasized through simulations and discussion. (CAN SPCH 10)

20H HONORS SEMINAR: POLITICAL CAMPAIGN COMMUNICATION 3 Units
Prerequisite: None
54 hours lecture
What do pundits, politicians and the public have in common? The ability to impact political campaign communication. This seminar-style course will introduce students to the effects of political campaign communication on public opinion and election results. Using timely data, students will evaluate news media, debate presidential debates, and analyze campaign messages using qualitative and quantitative approaches. This course is intended for the honor student interested in learning about political communication, rhetorical criticism, and techniques for writing for academic audiences. Permission of instructor needed for enrollment in this honors course.

49 SPECIAL STUDIES IN SPEECH 1-3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
(See page 21)
Area of Student Services

Student Government

These courses are designed for those students elected to student government positions.
The Associated Student Government is recognized as the voice of students. Those enrolled in
this program have a variety of opportunities to serve on the Student Senate, and/or any
college committees.

Highlights
- Work with the Associated Student Government constitution
- Participation in developing and determining college policy as it relates to student issues
- Opportunities to serve on college committees

1 INTRODUCTION TO STUDENT GOVERNMENT
(formerly Student Government)
Prerequisite: None.
Acceptable for credit: CSU
18 hours lecture, 54 hours laboratory
This class provides a study of the legal, educational and philosophical basis of student government. May include
travel to other campuses, area conferences and state conferences. Will include the opportunity to participate on
faculty and administrative committees. Designed to teach leadership skills and to give practical experience in the field
of student government. May be taken three times for credit.

49 SPECIAL STUDIES IN STUDENT GOVERNMENT
(See catalog page 21)
Acceptable for credit: CSU
Area of Communication, Visual & Performing Arts

Telecommunications Technology

DEGREE A.A.—Communications Media: Telecommunications Technology
CERTIFICATE Communications Media: Telecommunications Technology

This instructional program is designed to provide skills for industry and for degree or transfer. This option will allow students to enter and exit at many points within any semester and may be tailored for specific business training needs.

Career Options
Teleconferencing; Network Operations; Telephone Communication Systems; Satellite Communications; Multi-Media; Communication Systems; Voice, Video, and Data Businesses

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Highlights
Practical experience working on a variety of telecommunication systems, including satellite uplinking
Opportunities for businesses to take advantage of training on an "as needed" basis
Designed for the integration of education, work, and lifelong skills acquisition

DEGREE
A.A.—Communications Media, Telecommunications Technology
CODE #1289

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMED 62* Introduction to Telecommunications or CMED 50A-F Perspectives in Telecommunications</td>
<td>3</td>
</tr>
<tr>
<td>HUM/CAR DEV 4A and 4B Career Realignment and HUM/CAR DEV 5 Job Search Portfolio Development</td>
<td>3</td>
</tr>
<tr>
<td>CMED 85 Corporate Video or CMED 51A-F Telecommuni. Management &amp; Marketing</td>
<td>3</td>
</tr>
<tr>
<td>CIS 63 Networking Technologies and CMED 62* Introduction to Telecommunications or CMED 52A-F Telecommunications Networks</td>
<td>3</td>
</tr>
<tr>
<td>CMED 53 Telecommunications Technology or CMED 53A-F</td>
<td>3</td>
</tr>
<tr>
<td>CMED 55 Advanced Telecommunications Networks or CMED 55A-C</td>
<td>3</td>
</tr>
<tr>
<td>CMED 87 Introduction to Teleconferencing and CMED 70/CIS 70 Introduction to Multimedia or CMED 57 Telecommunications Integration or CMED 57A-F</td>
<td>3-6</td>
</tr>
<tr>
<td>CMED 58 Telecommunications Network Management or CMED 58A-F</td>
<td>3</td>
</tr>
<tr>
<td>SPEE 13 Organizational Communications</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 60 Practical Communication</td>
<td>3</td>
</tr>
<tr>
<td>CIS 3 Introduction to Computer Information Science</td>
<td>3</td>
</tr>
<tr>
<td>MATH 51 Elementary Algebra</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL UNITS REQUIRED</td>
<td>38-41</td>
</tr>
</tbody>
</table>

Suggested General Education and Elective Courses:
Speech 9; Physical Education 1; Business 8; Communications Media 98; English 75; Management 1, 50; Computer Information Science 60.

* Note: CMED 62 may only be taken once for credit

General Education Graduation Requirements - See page 18.
CERTIFICATE
Communications Media,
Telecommunications Technology
CODE #1289

REQUIRED PROGRAM ........................................................... Units
CMED 62* Introduction to Telecommunications or
CMED 50A-F Perspectives in Telecommunication ........... 3
HUM/CAR DEV 4A and 4B Career Realignment and
HUM/CAR DEV 5 Job Search Portfolio Development ............ 3
CMED 85 Corporate Video or
CMED 51A-F Telecommunications Management
& Marketing .............................................................. 3
CIS 63 Networking Technologies and
CMED 62* Introduction to Telecommunications or
CMED 52A-F Telecommunications Networks ................. 3
CMED 53 Telecommunications Technology or
CMED 53A-F ............................................................... 3
CMED 55 Advanced Telecommunications Networks or
CMED 55A-C ............................................................. 3
CMED 87 Introduction to Teleconferencing and
CMED 70/CIS 70 Introduction to Multimedia or
CMED 57 Telecommunications Integration or
CMED 57A-E .............................................................. 3-6
CMED 58 Telecommunications Network Management or
CMED 58A-F ............................................................... 3
SPEE 13 Organizational Communication ........................ 3
ENGL 60 Practical Communication ................................. 3
CIS 3 Introduction to Computer Information Science .......... 3
MATH 51 Elementary Algebra ...................................... 5
TOTAL UNITS REQUIRED .............................................. 38-41

*Note: CMED 62 may only be taken once for credit.
Area of Communication, Visual & Performing Arts

Television Production

DEGREE
A.A.—Communications Media, Television Production

CERTIFICATE
Cable Access Production
Television Production

Designed to provide skills in television production through the preparation of videotapes for campus viewing and Cable TV. This option can lead to entry-level jobs in television, Cable TV, business and industry or for preparation for transfer to a four-year institution.

Career Options
Camera Operator; Computer Graphic Artist;
Tape or Non-Linear Video Editors;
Technical Director; Broadcast Technician;
Production Assistant; Producer/Director;
Personal or Corporate Video

Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.

Highlights
Practical experience working in the campus television studio or at Comcast Cable

Internship opportunities working in local television stations and production facilities

Complete TV studio with three cameras, switcher, character generator and teleprompter

State-of-the-art 20-station computer lab for graphics and non-linear editing, including Photoshop, Illustrator, Premiere, After Effects, and Media 100

DEGREE
A.A.—Communications Media, Television Production
CODE #1063

REQUIRED PROGRAM ............................................................. Units
CMED 5 Mass Media & Society ............................................. 3
CMED 54 Basic Film/Video Camera Techniques ..................... 3
CMED 56 Radio Studio Operations .......................................... 3
CMED 62 Introduction to Telecommunications ......................... 3
CMED 63 Broadcast Writing and Announcing or
CMED 73 Broadcast Journalism ............................................. 3
CMED 64 Television Production ............................................. 3
CMED 74 Adv. Television Production (must be taken twice) .... 2, 2
CMED 80 Introduction to Desktop Video ................................. 3
CIS 1/JOUR 1 Computer Familiarization ................................. 1
Plus six (6) units selected from ............................................. 6
Communications Media 60, 65, 70, 82,84, 85,98;
Journalism 20A, 54; Marketing 22,
Photography 1, 40; Speech 7

TOTAL UNITS REQUIRED ......................................................... 32

General Education Graduation Requirements - See page 18.

CERTIFICATE
Cable Access Production
CODE #1061

Short-term courses designed to enable students to gain skills in the operation and use of video/audio equipment and techniques.

REQUIRED PROGRAM ............................................................. Units
CMED 91 Producing Your Cable TV Program ............................ 1
CMED 92A Single Camera TV Production ............................... 1
CMED 92B Lighting for Video ............................................... 1
CMED 93 Videotape Edit for Cable TV .................................... 1
CMED 94A Multiple-Camera for Studio Production ................. 1
CMED 94B Television Performance Techniques .................... 1
Plus six (6) units selected from ............................................. 6
Communications Media 5, 56, 62, 65, 73, 80 81,
94C, 94D, 95A, 95B, 95C, 96

TOTAL UNITS REQUIRED ......................................................... 12

See Communications Media section for most class offerings.
CERTIFICATE
Television Production
CODE #1063

REQUIRED PROGRAM ............................................................ Units
CMED 54 Basic Film/Video Camera Techniques ......................... 3
CMED 64 Television Production ............................................. 3
CMED 74 Advanced Television Production ................................ 2
CMED 80 Introduction to Desktop Video .................................. 3

Plus six (6) units selected from:
Communications Media 56, 57, 63, 70, 73, 82, 85 .................... 6

TOTAL UNITS REQUIRED ......................................................... 17
Area of Communication, Visual & Performing Arts

Theatre Arts

DEGREE A.A.—Theatre Arts

CERTIFICATES Theatre Arts, Acting
Theatre Arts, Technical Production

The two-year program in Theatre Arts is designed to provide students with a broad spectrum of activities in all phases of play production. The basic program also provides an opportunity for specialization in acting or one of the technical areas of theatre work.

Career Options
Acting; Theatre Arts Management; Design for the Theatre; Publicity and Public Relations; Teaching; Theatre Technician/Stage Management; Box Office Management

Some career choices may require courses beyond the Associate Degree.

Highlights
Distinguished faculty with nationally renown professional experience in directing, playwriting and design, as well as considerable teaching experience on both the graduate and undergraduate levels in the UC system

New Visual and Performing Arts Complex which includes a 320-seat proscenium theatre and a 150-seat flexible space

CRC's Theatre Department includes River Stage, Sacramento's critically acclaimed professionally-oriented theatre company

Professional Acting Studio presently being developed in conjunction with River Stage, eventually to become a three-year program

Work side-by-side with seasoned professional theatre artists

Opportunity for advanced students to gain access to the finest four-year college and university theatre programs as well as internships in major regional theatres throughout the country

DEGREE A.A.—Theatre Arts

CODE #1239

REQUIRED PROGRAM ............................................................. Units
TA 1 Introduction to Theatre ................................................. 3
TA 7 Fundamentals of Repertory Production (1,3,6) and/or
   TA 47 Rehearsal and Performance (.5-3) ......................... 6
TA 13 Beginning Acting ...................................................... 3
TA 15A Theory and Techniques of Acting or
   viable substitute ............................................................. 3
TA 26 Theatre Arts Management .......................................... 3
TA 30A Stagecraft .............................................................. 3
TA 31 Stage Lighting ......................................................... 3
Plus three (3) units selected from ................................................. 3
ART 5 Modern Art (3)
ART 10 Introduction to Art (3)
ENGL 31 American Literature (3)
MUSIC 6 Introduction to Music (3)
PSYCH 7 Human Behavior (3)
SPEE 7 Voice and Diction (3)
TOTAL UNITS REQUIRED ......................................................... 27

General Education Graduation Requirements - See page 18.
CERTIFICATE
Theatre Arts, Acting
CODE #1240

REQUIRED PROGRAM ............................................................ Units
TA 13  Beginning Acting .......................................................... 3
TA 15A  Theory and Techniques of Acting .................................. 3
TA 15B  Theory and Techniques of Acting .................................. 3
TA 16  Styles of Acting ............................................................ 3
TA 7  Fundamentals of Repertory Production and/or
TA 47  Rehearsal and Performance ......................................... 6
TA 1  Introduction to Theatre .................................................. 3
TA 30A  Stagecraft ................................................................. 3
Plus three (3) units selected from ............................................ 3
PSYCH 7  Human Behavior (3)
SPEE 7  Voice and Diction (3)
ENGL 31  American Literature (3)
ART 10  Introduction to Art (3)
ART 5  Modern Art (3)
TOTAL UNITS REQUIRED ....................................................... 27

CERTIFICATE
Theatre Arts, Technical Production
CODE #1243

REQUIRED PROGRAM ............................................................ Units
TA 1  Introduction to Theatre .................................................. 3
TA 30A  Stagecraft ................................................................. 3
TA 31  Stage Lighting ............................................................. 3
TA 32  Adv. Technical Theatre (3) (must be taken twice) .............. 6
Plus six (6) units selected from ................................................ 6
TA 7  Fundamentals of Repertory Production (1,3,6)
TA 47  Rehearsal and Performance (.5-3)
TA 17  Theatre Movement (2) or
TA 26  Theatre Arts Management (2)
Plus three (3) units selected from ............................................ 3
ART 10  Introduction to Art (3)
ART 14  Design Fundamentals (3)
ART 5  Modern Art (3)
ART 15B  Color Theory (3)
Welding (any course) (3)
Figure Drawing or Rendering (any course) (3)
TOTAL UNITS REQUIRED ....................................................... 24

Theatre Arts

1  INTRODUCTION TO THE THEATRE 3 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course is designed to acquaint the student with the general area of theatre arts. It includes lectures with field trips, guest speakers and movies.

2  HISTORY AND THEORY 3 Units
OF THE THEATRE
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course is a study of the masterpieces of world theatre from the Greeks to modern time. Lectures include the historical background in which the plays were written, discussions of the playwright's meaning, and comments on a variety of staging possibilities.

3  HISTORY AND THEORY 3 Units
OF THE THEATRE
Prerequisite: None.
Acceptable for credit: CSU, UC
54 hours lecture
This course is a study of the principal types of twentieth century theatre. Lectures include the background in which the plays were written, discussions of the playwright's meaning, and comments on a variety of staging possibilities.

7  FUNDAMENTALS OF 1, 3 or 6 Units
REPERTORY PRODUCTION
Prerequisite: Those students who fulfill Theatre Arts 7 by acting in the production, will be required to audition.
Acceptable for credit: CSU
36 hours lecture, 216 hours laboratory
This course provides for participation in one or more productions and includes work in all areas of theatre, including acting, scene construction, costumes, makeup, and business management. It culminates in concurrent performances at the end of the session. The course may be repeated for a total of 12 units. Students may opt for a one-unit workshop which will survey the production process.

8  DIVERSITY IN AMERICAN DRAMA 3 Units
(1960 TO PRESENT)
Prerequisite: None
Acceptable for credit: CSU
54 hours lecture
This multicultural course surveys the theatrical expression of Native-American, African-American, Chicana/Chicano, and Asian-American theatre from 1960 to the present, including the social, political, cultural, and economic climate in which the theatre was created.
13 BEGINNING ACTING 3 Units
(formerly Theatre Arts 27, Beginning Acting)
Prerequisite: None.
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course introduces the student to the basic art and craft of acting. Basic exercises in voice and diction, movement, and character will be utilized.

15A THEORY AND TECHNIQUES OF ACTING 3 Units
Prerequisite: Theatre Arts 13
Acceptable for credit: CSU, UC - See Counselor
54 hours lecture
This course follows the Beginning Acting class and enables the student to utilize the simple learned skills and apply them to scene work on American realistic scenes and monologues. The emphasis will be placed on broadening the understanding of the acting process by exploring at least four characters during the semester, as well as observing the progress of other actors in the class. This course may be taken twice for credit.
(CAN DRAM 8)

15B THEORY AND TECHNIQUES OF ACTING 3 Units
Prerequisite: Theatre Arts 15A
Acceptable for credit: CSU, UC - See Counselor
54 hours lecture
This course follows Theatre Arts 15A and will enable the serious acting student to expand skills that have been learned and apply them to an ongoing study of the craft of acting. The emphasis is placed on encouraging the actor to explore and expand the range and flexibility of their personal acting process, including acting for the camera. Students will explore at least four characters during the semester, as well as observe progress of the other actors in the class. This course may be taken twice for credit.

16 STYLES OF ACTING 3 Units
Prerequisite: Theatre Arts 15A.
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
Students will study and practice different styles of acting from the ancient to modern times. The instructor may concentrate on selected periods. This course may be repeated twice for credit. Students may wish to challenge the prerequisite on the basis of equivalent experience.

17 THEATRE MOVEMENT 2 Units
Prerequisite: None.
Acceptable for credit: CSU, UC
18 hours lecture, 54 hours laboratory
This course is an active participation and performance experience designed to give students opportunities in discovering and solving movement tasks of the actor. The course incorporates exercises to expand the individual’s movement for characters and scenes, as well as training in specific movement areas such as combat, period style, and dance. The course may be repeated for a maximum of 8 units of credit.

19 ACTING FOR THE CAMERA 3 Units
Prerequisite: Theatre Arts 15A or Communications Media 63. (Not open to students who have received credit for Communications Media 83.)
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
Introductory course in the theory and techniques of acting for film and video, comparing the differences between stage acting and acting for the camera. Scenes and commercials enacted and played back on video tape for class critiquing. Students may wish to challenge the prerequisite on the basis of equivalent experience.

26 ARTS MANAGEMENT 3 Units
Prerequisite: None.
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This is a general survey class in arts management with emphasis on organization, marketing/development, and financial management. Field work will include projects with an existing arts organization.

27A INTRODUCTORY ACTORS STUDIO 3 Units
Prerequisite: None.
Advisory: Audition/demonstrated acting skills
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
A practical, performance-oriented course designed to introduce the career-oriented drama student to an integrated program of skills in actor training. Studies will include basic principles of acting, improvisation, voice and movement dynamics, and beginning scene study.

27B BEGINNING ACTING STUDIO 3 Units
Prerequisite: Theatre Arts 27A
Advisory: Audition/demonstrated acting skills
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course is a continuation of Theatre Arts 27A offering a further examination of an integrated program of beginning skills in actor training for the career-oriented acting student. Studies will include audition techniques, beginning scene study, speech for the stage and dialects.

27C INTERMEDIATE ACTING STUDIO 3 Units
Prerequisite: Theatre Arts 27B
Advisory: Audition/demonstrated acting skills
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
A practical, performance-oriented course designed to introduce the career-oriented drama student to an integrated program of intermediate skills in actor training. Studies will include intermediate audition techniques and Shakespeare scene study, intermediate scene study and project work in one or more classic styles.
27D ADVANCED ACTING STUDIO 3 Units
Prerequisite: Theatre Arts 27C
Advisory: Audition/demonstrated acting skills
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course is a continuation of Theatre Arts 27C offering a further examination of an integrated program of advanced skills in actor training for the career-oriented acting student. Studies will include advanced scene study and project work, advanced audition techniques, and acting for the camera.

27E ADVANCED SCENE STUDY WORKSHOP 3 Units
Prerequisite: Theatre Arts 27D
Advisory: Audition/demonstrated acting skills
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
This advanced skills course for the experienced actor which concentrates on developing and expanding the range and power of the actor’s work. Actors will be individually directed through a series of scenes and audition monologues.

28 CHILDREN’S LITERATURE AND CREATIVE DRAMA 3 Units
Prerequisite: None.
Acceptable for credit: CSU
45 hours lecture, 27 hours laboratory
This course examines teaching strategies and techniques for introducing children to theatre. This is not a class for children, rather a class for educators service providers for children, and recreation majors. This course will introduce the student to children’s theatre. This will be accomplished both through the study of contemporary children’s theatre scripts as well as hands on exercises dealing with the methodology of presenting theatre for children (including mask making, puppetry, and creative drama techniques).

30A STAGECRAFT 3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course covers the basic materials used in the construction of scenery and properties. Also included are construction and painting techniques; kinds of scenery and backstage organization are explored through a combination of lecture and practical experience gained by working on department productions.

31 STAGE LIGHTING 3 Units
Prerequisite: None
Acceptable for credit: CSU, UC
36 hours lecture, 54 hours laboratory
This course includes the design and function of stage lighting; classification of modern equipment and methods of control; the psychology of using color in light; and operation of sound and recording equipment. Students learn to utilize equipment needed for the dramatic productions at the college.

32 ADVANCED TECHNICAL THEATRE 3 Units
Prerequisite: Theatre Arts 30A and 31
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
Advanced study dealing with technical theatre production techniques and design in the areas of scenery, props, lighting, sound, scenic painting, rigging, costumes or stage management and costumes, through individual projects and participation in major productions. This course may be taken two times for credit.

36 COSTUME CONSTRUCTION 3 Units
Prerequisite: None
Acceptable for credit: CSU
36 hours lecture, 54 hours laboratory
In addition to constructing costumes for the Theatre Arts productions, students will learn techniques of pattern drafting and sewing for stage use. Basic elements of color, design, and if applicable, period styles will be explored. This course may be taken twice for credit.

42 SPECIAL TOPICS IN THEATRE 1 - 3 Units
Prerequisite: None
Acceptable for credit: CSU
36-108 hours lecture, 36-108 hours laboratory
This course is designed to give students an opportunity to study a variety of topics dealing with performance and/or production aspects of theatre not included in current course offerings. This course may be repeated for credit, providing there is no duplication of topics.

47 REHEARSAL AND PERFORMANCE .5 - 3 Units
Prerequisite: Ability to perform in current production as determined by audition, or to work backstage as determined by the requirements of the production.
Acceptable for credit: CSU, UC
54 hours laboratory equals one (1) unit credit
This course is a workshop experience for students in theatre. All students performing or working backstage in productions may enroll in this class for one-half to three units at the discretion of the instructor. The course may be repeated for a maximum of twelve (12) units. Students may enroll in this class after the close of late registration at the discretion of the instructor.

48 WORK EXPERIENCE IN THEATRE ARTS 1-4 Units
(See catalog p. 22)
Acceptable for credit: CSU — See Counselor

49 SPECIAL STUDIES IN THEATRE ARTS 1-3 Units
(See catalog p. 21)
Acceptable for credit: CSU, UC—See Counselor
Area of Careers and Technology

**Vétérinaire Technology**

**DEGREE**  A.S.—Veterinary Technology  
**CERTIFICATE**  Veterinary Technology  

CRC's **Vétérinaire Technology** program is designed to provide the student with the skills and knowledge necessary to pursue a career as a Registered Veterinary Technician. The program offers a rigorous yet rewarding academic curriculum while simultaneously providing ample hands-on experience. The student will gain a working knowledge of animal behavior, restraint, nutrition and nursing. The curriculum will include, but not be restricted to, the performance of emergency care, anesthesia, dental care, surgical assistance and laboratory procedures.

Registered Veterinary Technicians (RVTs) (previously known as Animal Health Technicians) are trained professionals who work as highly skilled assistants to veterinarians and researchers. Their knowledge and skills have led to their being desirable employees in a variety of related fields.

Most states (including California) require official licensing or certification of RVTs. In California certification is accomplished by:

- completion of an educational curriculum
- achievement of a passing score on a state board exam

**Career Options**
- Private Veterinary Practice; Zoos/Wild Animal Parks; Pharmaceutical Industry; Veterinary Supplies Sales; Diagnostic Laboratories; Military Service; Education; Biomedical Research; Humane Societies/Animal Control; Regulatory Veterinary Medicine; Livestock Health Management

**Highlights**
- One of only six programs in California that has earned accreditation by the American Veterinary Medical Association
- Acceptance of degree by examining boards in states other than California
- High-quality training recognized by local employers
- Excellent record of students passing state board exams
- On-the-job training and future job placement opportunities
DEGREE
A.S.—Veterinary Technology
CODE #1017

Upon completion of an A.S. degree in this field, the student will be fully eligible to take the State Board examination to receive a certificate in Veterinary Technology.

REQUIRED PROGRAM .................................................... Units
FIRST YEAR
BIO 1A Principles of Biology ........................................... 5
CHEM 2A Introduction to Chemistry .................................. 4
VT 50 Introduction to Veterinary Technology ....................... 3
VT 60 Veterinary Office Practice ..................................... 3
VT 61 Anatomy & Physiology of Domestic Animals ............... 3.5
VT 63 Clinical Laboratory Techniques for Veterinary Technicians ........................................... 4
BIO 6 General Microbiology ........................................... 4
CIS 1 Computer Familiarization (Any Semester) .................... 1

SECOND YEAR
VT 70 Pharmacology & Anesthesiology for the Veterinary Technician ........................................... 4
VT 72 Animal Disease: Pathology ..................................... 3
VT 74 Large Animal Nursing ............................................. 1.5
VT 80 Advanced Veterinary Technology ............................... 4
VT 81 Introduction to Diagnostic Imaging ........................... 3
VT 98 Work Experience in Veterinary Technology ............... 2

TOTAL UNITS REQUIRED ........................................... 45

* 150 work experience hours required in addition to time spent in the care and feeding of CRC colony animals.

Suggested Electives:
VT 92 Introduction to Laboratory Animals and Caged Birds

Additional Suggested Electives:
FCS 10; Allied Health 54; Psychology 1

NOTE: Biology 1A is a prerequisite for VT 61.

General Education Graduation Requirements - See page 18.

IMPORTANT NOTICE TO STUDENTS
In order to insure that prerequisites for subsequent courses are met and to allow completion of course work in 4 semesters, the student must adhere to the following schedule. NOTE: VT courses are offered only once per year—spring or fall semester.

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>SEMESTER 2</th>
<th>SEMESTER 3</th>
<th>SEMESTER 4</th>
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<tbody>
<tr>
<td>(Fall)</td>
<td>(Spring)</td>
<td>(Fall)</td>
<td>(Spring)</td>
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<tr>
<td>Biology 1A</td>
<td>VT 60</td>
<td>VT 70</td>
<td>VT 80</td>
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<tr>
<td>Chemistry 2A</td>
<td>VT 50</td>
<td>VT 72</td>
<td>VT 81</td>
</tr>
<tr>
<td>VT 60</td>
<td>VT 61</td>
<td>VT 74</td>
<td>VT 83</td>
</tr>
</tbody>
</table>

With the exception of VT 60, all courses are pre- or co-requisites for the subsequent semester’s courses. Failure to complete a course successfully will therefore delay progress through the program.

** VT 60 has no prerequisites and may be taken prior to the first semester courses if you want to take a five semester program, but may not be taken during the last semester due to scheduling conflicts with required 2nd year courses.

VT 98 (Work Experience) can be taken any semester after completion of VT 61 and VT 63. A minimum of 150 hours is required.

VT 92, an elective, when offered, may be taken during the first or third semester.

Biology 6 should be taken prior to or concurrently with VT 72.

CERTIFICATE
Veterinary Technology
CODE #1017

REQUIRED PROGRAM .................................................... Units
BIO 1A Principles of Biology ........................................... 5
CHEM 2A Introduction to Chemistry .................................. 4
VT 50 Introduction to Veterinary Technology ....................... 3
VT 61 Anatomy & Physiology of Domestic Animals ............... 3.5
VT 63 Clinical Laboratory Techniques for Veterinary Technicians ........................................... 4
VT 70 Pharmacology & Anesthesiology for the Veterinary Technician ........................................... 4
VT 72 Animal Disease: Pathology ..................................... 3
VT 74 Large Animal Nursing ............................................. 1.5
VT 80 Advanced Veterinary Technology ............................... 4
VT 81 Introduction to Diagnostic Imaging ........................... 3

TOTAL UNITS REQUIRED ........................................... 35

(This program is offered to unregistered veterinary assistants currently working in the field having three years of experience)

NOTE: Students may become eligible to sit for the California Veterinary Technician examination for VT certification with successful completion of an AS degree in Veterinary Technology (Category 2). A new eligibility category (Category 5) can be met by completion of the certificate program and three (3) years of clinical experience.

FOR ADDITIONAL INFORMATION, CALL:
Kathryn Graham, DVM
Director, Veterinary Technology, CRC
(916) 691-7355

(See next page for beginning of class descriptions)
Veterinary Technology

49 SPECIAL STUDIES IN VETERINARY TECHNOLOGY 1-3 Units

(See catalog p. 21)

50 INTRODUCTION TO VETERINARY TECHNOLOGY 3 Units

Prerequisite: Completion of or concurrent enrollment in Chemistry 2A and Biology 1A with grade of "C" or better.

This is an orientation course which reviews the history, training and career opportunities pertaining to Registered Veterinary Technicians. Animal behavior, handling, training and restraint will be thoroughly presented and discussed in the lecture periods. Laboratories will provide opportunities for students to gain hands-on experience with domestic, farm, laboratory and non-domestic animal species (when they are available). Students will be introduced to the medical terminology common to the animal health care field.

60 VETERINARY OFFICE PRACTICE 3 Units

Prerequisite: None. Completion of or concurrent enrollment in Computer Information Science 1. (Recommended completion of or concurrent enrollment in VT 50.)

This course will cover the basic clinical laboratory skills needed by Registered Veterinary Technicians. Subjects included will be parasitology, cytology, urinalysis, bacteriology and an introduction to hematology. Both normal and abnormal values for various species of animals will be covered. Students will gain additional hands-on experience as they learn to restrain the animals for specimen collection procedures. Office procedures as they pertain to clinical laboratory work will be included—filing, recordkeeping, telephone reports, etc.

61 ANATOMY-PHYSIOLOGY OF ANIMALS 3.5 Units

Prerequisite: Veterinary Technology 50, Biology 1A

This course is a study of the basic anatomy and physiology of common domestic animals, specifically dogs, cats, horses, swine and ruminants. The information will be organized according to body systems. Within each system, the variation between species will be explored. Whenever possible, topics will be related to pertinent veterinary situations. (Note: Laboratory periods will include dissection of cadavers.)

63 CLINICAL LABORATORY TECHNIQUES FOR VETERINARY TECHNICIANS 4 Units

Prerequisite: Admission to the Veterinary Technology program. Completion of or concurrent enrollment in Veterinary Technology 61.

This course will cover the basic clinical laboratory skills needed by Registered Veterinary Technicians. Subjects included will be parasitology, cytology, urinalysis, bacteriology and an introduction to hematology. Both normal and abnormal values for various species of animals will be covered. Students will gain additional hands-on experience as they learn to restrain the animals for specimen collection procedures. Office procedures as they pertain to clinical laboratory work will be included—filing, recordkeeping, telephone reports, etc.

70 PHARMACOLOGY AND ANESTHESIOLOGY FOR THE VETERINARY TECHNICIAN 4 Units

Prerequisites: Completion of Veterinary Technology 61 and 63 with a grade of "C" or better.

This course will lay the foundation for the student’s understanding of pharmacological agents. Drugs will be discussed according to classification, action, method of administration and dispensing (including procedures for scheduled drugs). Injectable and inhalation anesthetic agents will be discussed and demonstrated during surgical laboratory exercises. Students will have an opportunity to work with two inhalation anesthetic agents. All students will rotate through various surgical positions where they will enhance their knowledge of equipment and job tasks required of the surgical assistant and anesthesia monitor. Students will learn intravenous catheterization and fluid therapy.

72 ANIMAL DISEASE PATHOLOGY 3 Units

Prerequisites: Veterinary Technology 61 and 63 with grades of "C" or better. Completion of or concurrent enrollment in Biology 6.

This course is a study of the basic anatomy and physiology of common domestic animals, specifically dogs, cats, horses, swine and ruminants. The information will be organized according to body systems. Within each system, the variation between species will be explored. Whenever possible, topics will be related to pertinent veterinary situations. (Note: Laboratory periods will include dissection of cadavers.)

COSUMNES RIVER COLLEGE 2000 - 2001 Veterinary Technology 279
74 LARGE ANIMAL NURSING 1.5 Units
Prerequisite: Veterinary Technology 61, 63, and concurrent enrollment in Veterinary Technology 70.
18 hours lecture, 27 hours laboratory (9 weeks)
A course in restraint, behavior, anesthesia and nursing care of ruminant and equine animals, including hands-on experience with these species. Some routine medically-oriented management procedures, such as ruminant dehorning, will also be covered. In addition to lecture presentations, students will train at off-campus sites in procedures such as venipuncture, tail and leg wrapping, administration of injectable and oral medication and intravenous catheterization. The student will also receive instruction in the use of restraint equipment and techniques in the use of equipment for obstetrical examination, and in the administration of anesthesia.

92 INTRODUCTION TO 2 Units
LABORATORY ANIMALS AND CAGED BIRDS
Prerequisite: Completion of or concurrent enrollment in Veterinary Technology 50.
27 hours lecture, 27 hours laboratory
This course is designed to expand upon the brief introduction the veterinary technology student has had to caged birds and laboratory animals. The student will have more hands-on exposure to laboratory animals and caged birds (e.g. specimen collection, anesthesia, etc.) thereby increasing their understanding of laboratory animal care maintenance requirements. Greater emphasis will be placed on obtaining handling skills. This course will provide information and handling skills which will help the student prepare for AALAS certification.

80 ADVANCED VETERINARY TECHNOLOGY 4 Units
Prerequisite: Completion of Veterinary Technology 70 and 72 with grades of "C" or better.
54 hours lecture, 72 hours laboratory
This course is designed to be a continuation of instruction in hematology and an introduction to bone marrow evaluation. Instruction also includes veterinary nutrition, dentistry, emergency patient care and small animal, laboratory animal, and non-domestic animal nursing techniques.

81 INTRODUCTION TO 3 Units
DIAGNOSTIC IMAGING
Prerequisite: Veterinary Technology 70 and 72 with grades of "C" or better.
36 hours lecture, 54 hours laboratory
This course is designed to meet the needs of the Registered Veterinary Technician who will be working for veterinarians in private practice, animal research laboratories, private and state industrial or educational institutions. The course covers safety procedures, rules, regulations, x-ray production and theory and specific techniques associated with the use of x-ray equipment. It includes positioning techniques for various animal species as well as radiograph developing techniques and basic x-ray theory. Alternate imaging modalities are introduced and their use in veterinary medicine described. Emphasis is placed on the theory of diagnostic ultrasound and its use in veterinary medicine.

98 WORK EXPERIENCE IN 1-4 Units
VETERINARY TECHNOLOGY
Prerequisite: Veterinary Technology 61 and 63 with a grade of "C" or better. (See catalog p. 21)
18 hours lecture equal one (1) unit of credit
As a part of the Veterinary Technology degree program, students are required to work a minimum of 150 hours in an active veterinary environment to provide practical work experience which coordinates with their academic training. This work experience is to be obtained after completion of the first year of the veterinary technology program. Work experience must be completed under the supervision of a California licensed veterinarian.
Area of Careers and Technology

**Welding**

**CERTIFICATE** Welding

This certificate can be used in conjunction with other technology areas such as:
- Automotive Mechanics Technology
- Building Inspection Technology
- Construction Management Technology

The CRC welding program is designed for students interested in seeking employment or advancing employment in welding fabrication and industrial repairs.

Current job statistics show a long-term and growing industry demand for skilled welders with very good pay for those with experience.

Welding encompasses study in electrical, metallurgy, chemistry, physics, design, and mechanical engineering.

**Career Options**
- Welding Technician; Sales; Inspection;
  - Supervision & Management;
  - Welding Engineering; Sculpting;
  - Home/Handicraft & Hobby;
  - Construction; Trucking & Automotives

**Highlights**
- Classes for beginning and advanced welders
- Certification from the American Welding Society
- Hands-on experience and opportunities for participation in student projects

**CERTIFICATE**

Welding

CODE #1245

**REQUARED PROGRAM** ............................................................ Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>WELD 51</td>
<td>Introduction to Welding</td>
<td>3</td>
</tr>
<tr>
<td>WELD 52</td>
<td>Advanced SMAW and Semi-Automatic Process</td>
<td>&quot;6</td>
</tr>
<tr>
<td>WELD 55</td>
<td>Preparation For Welding Certification</td>
<td>2</td>
</tr>
<tr>
<td>WELD 83</td>
<td>Advanced Student Projects</td>
<td>2</td>
</tr>
</tbody>
</table>

Plus three (3) units selected from:
- Math 200,
- Welding 53,
- Construction Management Technology 50, or any Automotive Mechanics Technology class .............. 3

**TOTAL UNITS REQUIRED** ........................................................... 16

( * 3 Unit course to be taken twice for credit).
49 SPECIAL STUDIES IN WELDING 1-3 Units
(See catalog p. 21)

51 INTRODUCTION TO WELDING 3 Units
Prerequisite: None.
36 hours lecture, 54 hours laboratory
An introductory course that covers the theory and techniques
of operating electric arc welding machines, stick electrode
Shielded Metal Arc Welding (SMAW), oxy-acetylene burning
and welding, brazing and heat treating. The course also
includes a review of power sources, joint design, metals,
welding symbols and welding techniques.

52 ADVANCED SMAW AND SEMI-AUTOMATIC PROCESS 3 Units
Prerequisite: None.
Advisory: Welding 51
36 hours lecture, 54 hours laboratory
Specialized training for welding technicians emphasizing
proficiency in out-of-position in Shielded Metal Arc Welding
(SMAW). In addition, the student will be trained for welding
in the Gas Metallic Arc Welding (GMAW) and Flux-Cored
Arc Welding (FCAW) on heavy plate. Shielding gases, wire
classification, setting up the equipment and metallurgy will
also be covered. Course may be taken twice for credit.

53 TIG, OTHER FERROUS AND NON-FERROUS WELDING 3 Units
Prerequisite: None.
Advisory: Welding 51
36 hours lecture, 54 hours laboratory
This course covers tungsten inert gas welding of aluminum,
stainless and other metals used in industry. Course covers
equipment set-up, electrode selection, joint design and
aluminum wire feed. Other welding techniques covered are
welding cast irons, hardfacing, air arc and welding non-
ferrous metals.

55 PREPARATION FOR WELDING CERTIFICATION 2 Units
Prerequisite: None.
Advisory: Welding 51 with grade of “C” or better and
completion of or concurrent enrollment in Welding 52 or 53
18 hours lecture, 54 hours laboratory
This course covers groove and fillet welds encountered in
general fabrication. Both of these are included in the
welding procedure qualification test. Qualification with
groove welds qualifies for both groove and fillet welds. The
processes covered are Shielded Metal Arc Welding (SMAW),
Gas Metallic Arc Welding (GMAW) and Flux-Cored Arc
Welding (FCAW). All positions of welding will be performed
in these processes. Prepares students for American Welding
Society (AWS) certification tests. Course may be taken twice
for credit.

83 ADVANCED STUDENT PROJECTS 2 Units
Prerequisite: None.
Advisory: Welding 51 with a grade of “C” or better
108 hours laboratory
Opportunity for students to pursue advanced projects which
are selected by the department. May be taken twice for credit.

93 TOPICS IN WELDING - NEW AND EMERGING OCCUPATIONS 1-5 Units
Prerequisite: To be determined for each topic.
18 - 54 hours lecture, 18 - 108 hours laboratory
Individualized course developed in cooperation with
industry to meet specialized training needs. May be taken
two times for credit.
COLLEGE ADMINISTRATION

President ............................................................................................................................................. Merrilee R. Lewis
Vice President for Instruction and Student Learning .................................................................................. William V. Karns
Vice President for Administrative Services and Student Support ............................................................... Christopher R. Brown
Vice President for Student Services and Student Development ................................................................. Claudia J. Hansson
Dean, Instruction, Economic & Resource Development ........................................................................... Nicholas J. Kremer
Dean, Business & Family Science ............................................................................................................. Janis J. Caston
Dean, Counselors and Student Services ..................................................................................................... Richard F. Wallace
Dean, Communication, Visual & Performing Arts ...................................................................................... Judith C. Rinehimer
Dean, Learning Resources & Campus Technology .................................................................................... Stephen McGloughlin
Dean, Physical Education & Athletics ......................................................................................................... Travis L. Parker, Jr.
Dean, Science, Mathematics and Engineering ............................................................................................ Katherine F. McLain

EDUCATIONAL CENTERS
(Folsom Lake and El Dorado)

Provost, Folsom Lake/El Dorado Centers ............................................................................................... Marlin H. Davies
Vice President for Instruction and Student Development ......................................................................... Thelma Scott-Skillman
Dean, Administrative Services .................................................................................................................. Kathleen Kirkin
Dean, Student Development & Enrollment Management ............................................................................. Victoria C. Rosario

FACULTY STATEMENT OF PROFESSIONAL ETHICS

1. Faculty members, guided by a deep conviction of the worth and dignity of the advancement of knowledge, recognize the special responsibilities placed upon them. Their primary responsibility to their disciplines is to seek and to state the truth as they see it. To this end they devote their energies to developing and improving their scholarly and teaching competence. They accept the obligation to exercise critical self-discipline and judgment in using, extending and transmitting knowledge. They practice intellectual honesty. Although they may follow subsidiary interests, these interests must never seriously hamper or compromise their freedom of inquiry.

2. As teachers, faculty members encourage the free pursuit of learning in their students. They hold before them the best scholarly standards of their discipline. They demonstrate respect for the student as an individual and adhere to their proper role as intellectual guides and counselors. They make every reasonable effort to foster honest academic conduct and to assure that their evaluation of students reflects their true merit. They respect the confidential nature of the relationship between faculty member and student. They avoid any exploitation of students for their private advantage and acknowledge significant assistance from them. They protect their academic freedom.

3. As colleagues, faculty members have obligations that derive from common membership in the community of scholars. They respect and defend the free inquiry of their associates. In the exchange of criticism and ideas they show due respect for the opinions of others. They acknowledge their academic debts and strive to be objective in their professional judgment of colleagues. They accept their share of faculty responsibilities for the governance of their institution.

4. As members of their institution, faculty members seek above all to be effective teachers and scholars. Although they observe the stated regulations of the institution, provided they do not contravene academic freedom, they maintain their right to criticize and seek revision. They determine the amount and character of the work they do outside their institution with due regard to their paramount responsibilities within it. When considering the interruption or termination of their service, they recognize the effect of their decision upon the programs of the institution and give due notice of their intentions.

5. As members of their community, faculty members have the rights and obligations of any citizen. They measure the urgency of these obligations in the light of their responsibilities to their disciplines, to their students, to their profession and to their institution. When they speak or act as private persons, they avoid creating the impression that they speak or act for their college or university. As citizens engaged in a profession that depends upon freedom for its health and integrity, faculty members have a particular obligation to promote conditions of free inquiry and to public understanding of academic freedom.
FACULTY CODE OF ETHICS

1. Recognizing that, at times, students will offer us gifts or favors, we must be aware of potential implications. Acceptance of such offerings should be avoided.

2. Recognizing that student sensitivities must be respected, we must appreciate that remarks based on gender, race, religious or ethnic group, physical handicap or sexual orientation are inappropriate in the classroom environment.

3. Recognizing that instructors are concerned with the welfare of students and that students will, at times, wish to share information of a personal nature, it is appropriate for faculty to listen sympathetically to students but not to elicit, reveal or exploit confidential information.

4. Recognizing that while amorous relationships are appropriate in other circumstances, we accept that such relationships are always inappropriate when they occur between any faculty member and his or her student. Further, such relationships may have the effect of undermining the atmosphere of trust on which the educational process depends. Implicit in the idea of professionalism is the recognition by those in positions of authority that in their relationships with students there is always an element of power. It is incumbent upon those with authority not to abuse, nor appear to abuse, the power with which they are entrusted.

5. Recognizing that under certain circumstances touching students may be appropriate, we acknowledge that sexual touching of a student by an instructor is never appropriate.

6. Professional interaction between students and instructors should always take place in an academic setting.

7. Instructors should never engage in nor condone sexual harassment. In the academic context, the term “sexual harassment” may be used to describe a wide range of behavior. The fundamental element is the unwelcome personal attention by an instructor who is in a position to determine a student’s grade or student employment or otherwise affect the student’s academic performance or professional future.
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<th>Degree(s)</th>
<th>Field</th>
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<td>B.S., Ball State University; Ph.D., UC, Davis</td>
<td>BUECHNER, Marybeth (1991)</td>
<td>Physical Education</td>
<td>物理教育学院</td>
</tr>
<tr>
<td>B.A., CSU, Chico</td>
<td>CHADERIAN, Balbina (1997)</td>
<td>EOP&amp;S Coordinator</td>
<td>EOP&amp;S协调员</td>
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<tr>
<td>M.S.W., CSU, Sacramento</td>
<td>CLARK, James L. (1972)</td>
<td>Physical Education</td>
<td>物理教育学院</td>
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<tr>
<td>B.S., Chico State College; M.E.D., UC, Davis</td>
<td>CONANT, Coit H. (1962)</td>
<td>Physical Education</td>
<td>物理教育学院</td>
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<td>B.S., Springfield College; M.S., University of Wisconsin</td>
<td>CONDON, Frank (1994)</td>
<td>Theatre Arts</td>
<td>戏剧艺术学院</td>
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<td>B.S., Chico State College; M.E.D., UC, Davis</td>
<td>CRANSTON, Monica L. (1982)</td>
<td>Counselor</td>
<td>顾问</td>
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<td>B.A., UC, Santa Barbara; M.A., San Jose State University</td>
<td>CRANSTON, Monica L. (1982)</td>
<td>Counselor</td>
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<td>B.A., Gonzaaga University; M.A, Sacramento State College</td>
<td>CROWLEY, Michael J. (1970)</td>
<td>English/Humanities</td>
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<tr>
<td>B.S., Sacramento State College; J.D., McGeorge School of Law</td>
<td>DAVENPORT, Lon D. (1976)</td>
<td>Business</td>
<td>商业学院</td>
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<tr>
<td>B.A., Eastern New Mexico University; M.A., Eastern New Mexico University</td>
<td>ELLIS, John D. (1983)</td>
<td>Architecture</td>
<td>建筑学院</td>
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<td>B.A., United States Air Force Academy; M.A., University of Washington</td>
<td>ERICKSON, Cindy Lee (1990)</td>
<td>Mathematics</td>
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<tr>
<td>B.S., California Polytechnic State University; M.S., UC, Davis</td>
<td>EVANS, James M. (1970)</td>
<td>English</td>
<td>英语学院</td>
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<td>B.A., Duke University; M.A., Ph.D., University of Southern California</td>
<td>FIEBREY, Rhonda J. (1990)</td>
<td>English As A Second Language</td>
<td>英语作为第二语言学院</td>
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<tr>
<td>B.A., San Francisco State College; R.N., C.M.A., Sacramento City College; S.D.S. Teaching Credential, UC, Berkeley; M.A., CSU, Sacramento</td>
<td>GOSHERON, Patricia G. (1970)</td>
<td>Medical Assisting</td>
<td>医学助理学院</td>
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<td>B.A., UC, Santa Barbara; D.V.M., UC, Davis</td>
<td>GRAHAM, Kathryn D. (1989)</td>
<td>Veterinary Technology</td>
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GUNTHER, Minet D. (1997) ................................................................................................................. Physical Education
  B.S., Oregon State University; M.A., St. Mary's College

HAMOUDI, Hamid (1999) ......................................................................................................................... Chemistry
  C.P.E., University of Cambridge; B.S., M.S., University of Algeria; Ph.D., University of Glasgow

HANNAN, Everett J. (1971) ......................................................................................................................... Psychology
  B.A., M.A., Chico State College; Ed.D., University of Southern California

HANSSON, Claudia (1987) ............................................................................................................................. Vice President for Student Services & Student Development
  B.A., M.A., CSU, Sacramento

HARRIS, A. Christine (1988) ......................................................................................................................... Psychology/Womens Studies
  B.A., M.A., Ph.D., University of Kansas

  B.S., Arizona State College; M.A., Northern Arizona University

HENDRIX, Leo Ralph (1990) ......................................................................................................................... Counselor
  A.A., Yuba College; A.B., CSU, Humboldt; M.S., LaVerne University

HERTZBERG, Alanson L. (1985) ..................................................................................................................... Computer Information Science
  B.A., M.A., CSU, Sacramento

  B.M., M.A., University of Pacific

HOCK, Dennis J. (1984) ............................................................................................................................... English
  B.A., M.A., CSU, Sacramento; Ph.D., Indiana University of Pennsylvania

HODAPP, David M. (1998) ............................................................................................................................ Environmental Technology
  B.S., M.S., Cal Poly; Ph.D., UC, Davis

HODGKINSON, Georgine R. (1997) ............................................................................................................... Speech
  A.A., CSU, Sacramento

HOEY, Michael D. (1976) .............................................................................................................................. Real Estate/Horticulture
  B.S., M.S., California Polytechnic State University

HOOPER, A. Catherine (1992) ...................................................................................................................... English
  B.A., University of Bristol; M.A., San Jose State, University

HOSKINS, N. Estella (1998) ......................................................................................................................... Counselor
  B.B.A., M.S., National University

HUANG, Chao-Jen (2000) ............................................................................................................................. Computer Information Science
  B.S., Chinese Culture University, Taiwan; M.B.A., M.S., Syracuse University, New York

HUNTER, Mark A. (1999) ............................................................................................................................... Mathematics
  A.A., Cosumnes River College; B.A., St. Martin's College; M.S., W.W.U.

  B.S., M.A., UC, Davis

JAMES, Reona L. (1980) .............................................................................................................................. College Nurse
  B.S., CSU, Sacramento; R.N., P.H.N., M.S., University of LaVerne

JOHNSON, Jack C. (1976) ............................................................................................................................ Business/Marketing
  B.B.A., University of Cincinnati; M.A., Indiana University

JONES, Melvina F. (1989) ............................................................................................................................. History
  B.A., M.A., CSU, Los Angeles; Ph.D., UC, Santa Barbara

KANEFIELD, Teri A. (1996) .......................................................................................................................... English
  B.A., University of Pennsylvania; M.A., UC, Davis

KARNS, William V. (1981) ............................................................................................................................ Vice President for Instruction and Student Learning
  B.A., M.A., CSU, Sacramento

KIRKHAM, William T. (1994) ...................................................................................................................... Drafting
  A.S., Laney College; B.A., CSU, Chico; M.A., San Jose State University

KNOTT, George A. (1990) ........................................................................................................................... Physics/Physical Science
  B.A., UC, Berkeley; M.S., Naval Postgraduate School, Monterey

KREMER, Nicholas J. (1998) ........................................................................................................................ Dean, Instruction, Economic & Resource Development
  B.A., Stanford University, M.A., Claremont Graduate University

KRIJSLAK, Stephen A. (1971) ....................................................................................................................... Counselor
  B.A., Fresno State College; M.A., Sacramento State College

LaDUE, Cheri L. (1989) ............................................................................................................................... Physical Education
  B.S., M.S., Baylor University

LAMMLEIN, Tamrya R. (1999) ....................................................................................................................... Biology
  B.S., CSU, Sacramento; M.S. University of Southern California

  A.A., Cosumnes River College; B.A., M.A., CSU, Sacramento

LAWLOR, Michael J. (1992) ......................................................................................................................... Physics/MESA Coordinator
  A.S., Antelope Valley Community College; B.S., UC, Irvine; M.S., CSU, Long Beach
RAILEY, George A., Jr. (2000) .......................................................... Dean, Humanities and Social Sciences
LEAKE, Steven J. (1975) .......................................................... Counselor/Assessment/Career
LEWIS, Melanie A. (1999) .......................................................... English
LEWIS, Merrilee R. (1995) .......................................................... President
A.B., M.A., Ph.D., University of Illinois, Urbana
MARCHAND, Lisa P. (1991) .......................................................... English As A Second Language
AA., American River College; B.A., CSU, Sacramento; M.A., UC, Davis
MARSH, Beverly S. (1991) .......................................................... Librarian
AA., Sacramento City College; B.A., CSU, Sacramento; M.L.S., San Jose State University
MARTELLA, Richard G. (1972) ..................................................... Welding/Horticulture
B.S., Fresno State College; M.Ed, UC, Davis
MARTIN, Gary B. (1993) ............................................................. Communications Media
B.S., California State Polytechnic College, San Luis Obispo; M.M.C., Arizona State University
MARTIN, Mary S. (1990) ............................................................. Mathematics
AA., Allan Hancock Jr. College; B.S., California State Polytechnic College; M.S., Carnegie-Mellon University
MARTINEZ, Marina Y. (1986) ...................................................... Work Experience Coordinator
AA., Mr. San Antonio College; B.S., Arizona State University; M.S., CSU, Sacramento
MATHIAS, Darlene D. (1987) ....................................................... Engineering
A.S., Modesto Jr. College; B.S., UC, Berkeley; M.S., Rutgers, State University of New Jersey;
MS, CSU, Sacramento
McCLURE-MACKINNON, Marlo K. (1987) ..................................... English As A Second Language
B.A., M.A., San Francisco State University
McCORMICK, Paul E. (1976) ...................................................... Anthropology/Sociology
B.S., M.A., University of Missouri
McCULLOUGH, Crisco S. (1999) .................................................. Dean, Careers and Technology
B.S., UC, Berkeley; M.A., CSU, San Jose
McGLOUGHLIN, Stephen (1999) ................................................ Dean, Learning Resources & College Technology
B.A., M.A., Trinity College, Dublin
McLAIN, Katherine E. (1986) ...................................................... Dean, Science, Mathematics & Engineering
AA., College of the Siskiyou; B.A., M.S., San Jose State University
McLAURIN, Freddie L. (1989) ...................................................... Mathematics
AA., American River College; B.A., CSU, Sacramento; M.A., Webster University, MO;
MS, University of Colorado; Ed.D., University of San Francisco
MILLER-COOPER, Billie (1972) .................................................. Business
B.S., M.A., Sacramento State College; Ph.D., University of New Mexico, Albuquerque
MONTANEZ, Robert L. (1995) ..................................................... Chemistry/MESA Coordinator
B.S., CSU, Stanislaus. Ph.D., UC, Santa Cruz
MUKANTABANA, Mathilde (1994) ............................................... History
B.A., University of Burundi; M.A., M.S.W., CSU, Sacramento
NEMERGUT, Ruth A. (1994) ....................................................... Biology
B.S., University of Bridgeport; M.S., Arizona State University; Ph.D., UC, Davis
OBERTH, Christine H. (1998) .................................................... Chemistry
B.S., UC, Davis; M.S., CSU, Sacramento; Ph.D., UC, Davis
Olsen, Carol A. (1990) ............................................................. Business Computer Applications
A.A.S., Suffolk County Community College; B.S., SUNY, Albany; M.S., SUNY, Stony Brook
PALM, Susan L. (1996) ............................................................. Computer Information Science
A.A., Vuba College; B.S., M.S., National University
PARKER, Travis L., Jr. (1972) ...................................................... Dean, Physical Education & Athletics
B.A., Sacramento State College; M.S., Western Illinois University
PATCHING, Roger S. (1977) ...................................................... History/Political Science
B.A., UC, Davis; M.A., Sacramento State College
PEREIRA, Michael J. (1999) ...................................................... Automotive Mechanics Technology
AA., Cosumnes River College; B.S. California Polytechnic State University
PICO, Glenn (1994) .............................................................. Mathematics
A.A., Diablo Valley College; B.A., M.A., CSU, Sacramento; M.S., University of Minnesota
PRATT, K. John (1990) .............................................................. English
B.A., UC, Berkeley; M.A., University of the Pacific
RAILEY, George A., Jr. (2000) ................................................... Dean, Humanities and Social Sciences
B.M.E., M.M.E., Eastern Kentucky University
REES, Elaine J. (1970) ................................................................. Spanish
   B.A., M.A., Pacific Union College
REICHEL, Sonya J. (1999) .......................................................... Mathematics
   B.A., M.A., CSU, Sacramento
REYES, J. Arturo (1998) .............................................................. Spanish
   B.A., M.A., CSU, Sacramento
RINEHIMER, Judith C. (1973) ..................................................... Dean, Communication, Visual & Performing Arts
   A.A., American River College; B.A., San Jose State University; MHROD, University of San Francisco
ROGERS, Kevin M. (1990) ........................................................... Automotive Mechanics Technology
   A.A., Butte College; B.S., CSU, Fresno
SALMI, Andrea K. (1997) ............................................................ Biology
   A.A., Pasadena City College; B.A., Humboldt State University; M.S., UC, San Diego
   B.A., M.A., University of Connecticut; Ph.D., UC, Davis
SCOTT, Susan M. (1988) ............................................................. Biology
   B.S., University of Western Ontario; Ph.D., Carleton University
SHARKEY, Debra A. (1997) .......................................................... Geography
   A.A., Central Oregon Community College; B.S., Southern Oregon State College; M.A., UC, Davis
SILVA, Evelyn D. (1989) ............................................................. Early Childhood Education
   A.A., Sacramento City College; B.A., M.A., CSU, Sacramento
SMITH, Carolyn (1987) ............................................................ Senior Learning Advisor II
   Sacramento City College
SOMADHI, KaKwasi (1999) ......................................................... Student Leadership/Tutoring Coordinator
   B.A., UC, Los Angeles; M.A. Goddard College
SONODA, Thomas T. (1971) ....................................................... Mathematics
   B.S., M.S., California State College at Hayward
   B.A., M.A., CSU Sacramento
SYMES, James L. (1989) .......................................................... Chemistry
   A.A., Hartnell College; B.A., M.S., CSU, Sacramento; Ph.D., University of Rhode Island
TAYLOR, Yoshio (1994) .............................................................. Art
   A.A., Sacramento City College; B.A., M.A., CSU, Sacramento; M.F.A., UC, Berkeley
THOMAS, Jim Don (1970) .......................................................... Accounting
   B.S., Sacramento State College; M.B.A., Oregon State University
TORRES, Cynthia I. (1991) .......................................................... Culinary Arts Management
   B.S., California State Polytechnic University; Pomona, M.B.A., Golden Gate
TURNER, Clinton W. (1975) ....................................................... Automotive Mechanics Technology/Ford ASSET Program
   B.V.E., CSU, Sacramento
VAN PATTER, Charles R. (1988) .................................................. Philosophy
   B.A., M.A., CSU, Long Beach; M.T.S., Gordon-Conwell Seminary
VIOLETT, Linnell G. (1990) ....................................................... Early Childhood Education/Family and Consumer Science
   A.A., Cosumnes River College; B.A., California State Polytechnic College; M.A., CSU, Sacramento
WAGNER, Christine R. (1987) ................................................... Speech
   B.A., State University of New York at Buffalo; M.A., CSU, Sacramento
WALL, I. Patricia (1991) ............................................................ Dean, Counseling and Student Services
   B.A., UC, Davis; M.A., San Francisco State University
WALLACE, Richard F. (1999) ..................................................... Art
   M.A., CSU, Hayward
   B.S., M.S., Michigan State University
WELLSFRY, Norval (1980) ........................................................ Accounting/Computer Information Science
   B.A., University of Wisconsin; M.B.A., Old Dominion University; Ed.D., Virginia Polytechnic Institute & State University
WENGERT, Daniel O. (1999) ....................................................... English
   B.A., UC, Davis; M.A., University of Virginia
WEST, Jim D. (1989) .............................................................. Photography
   A.A., Sacramento City College; B.A., UC, Davis
WOODMANSEE, Rick D. (1996) .................................................. Mathematics
   B.S., UC, Davis; M.S., Central Washington University
ZISK, Paul (1997) ................................................................. Sociology/Social Science/Anthropology
   M.A. Northern Arizona University
<table>
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<tr>
<th>Name</th>
<th>Degree Details</th>
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<td>FUSON, Joy A.</td>
<td>B.S., UC, Davis; M.A., CSU, Sacramento</td>
<td>Mathematics</td>
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<td>MALLOY, Linda W.</td>
<td>B.A., UC, Berkeley; M.A., CSU, San Francisco</td>
<td>English/Reading/Writing</td>
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<td>ALEXANDER, John E.</td>
<td>M.S., CSU, Sacramento</td>
<td>English</td>
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<td>BAKER, James B.</td>
<td>A.A., Santa Rosa Junior College; B.A., CSU, Sonoma; M.Ed., University of Nevada/Reno</td>
<td>Communications Media</td>
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<td>BECKMAN, Karen L.</td>
<td>B.A., M.A., CSU, Sacramento</td>
<td>Physical Education</td>
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<td>EITEL, Joseph E.</td>
<td>M.A., Fresno Pacific University</td>
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<td>FOSTER, Ted F.</td>
<td>Ph.D., UC, San Diego</td>
<td>Chemistry</td>
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<td>GERMANY, Talver J.</td>
<td>B.A., M.S., CSU, Sacramento</td>
<td>Counselor</td>
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<td>GORE, Edith</td>
<td>B.A., M.A., Chapman College</td>
<td>Early Childhood Education</td>
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<td>LEWIS, John</td>
<td>B.A., M.A., Stanford University</td>
<td>Librarian</td>
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<td>JONES, Janis Cox (1983)</td>
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<td>KIRKJIN, Kathleen</td>
<td>M.B.A., Golden Gate University</td>
<td>Dean, Administrative Services</td>
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<td>KROENCKE, Mikael</td>
<td>M.A., San Francisco State University; M.S., B.S., UC, Davis</td>
<td>Mathematics/Physics</td>
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<td>LEISAND, Kathryn Ann</td>
<td>A.A., Yuba Community College; B.A., M.A., CSU, Sacramento</td>
<td>English/Reading/Basic Skills</td>
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<td>MACIAS-PEREZ, Elvia</td>
<td>B.A., M.A., CSU, Sacramento</td>
<td>Spanish</td>
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<td>MALLOYS, Sarah</td>
<td>B.A., UC, Riverside; M.A., CSU, Chico; Ed.D., University of Pacific</td>
<td>Human Services/Anthropology</td>
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<td>MORENO, Deborah D.</td>
<td>B.A., M.A., CSU, Sacramento</td>
<td>History</td>
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<td>OLTS, H. Wayne</td>
<td>B.A., M.A., UC, Santa Barbara</td>
<td>Anthropology</td>
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<td>PENDER, Sarah</td>
<td>B.A., UC, Riverside; M.A., CSU, Chico; Ed.D., University of Pacific</td>
<td>Human Services/Anthropology</td>
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<td>PETERS, Barbara H.</td>
<td>A.A., Pasadena City College; B.A., M.A., Los Angeles State College</td>
<td>Physical Education</td>
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<td>PETRIE, Ron</td>
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<td>REPETTO, Deanne R.</td>
<td>Student Life Coordinator/Political Science</td>
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<td>RITZI-MAROUF, Viviane</td>
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<td>ROBINSON, Brian</td>
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<td>ROGERS, Sherry M.</td>
<td>Biology</td>
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- Veri, Ronald  
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  - Custodial Services  
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- Bellis, Kathy  
  - Instructional Services  
- Beretta-Small, Kim  
  - Computer Lab Services  
- Blair, Laurel  
  - Business Services  
- Clayton, Calvin  
  - Child Development  
- Hansen, Joyce  
  - Outreach / Tutoring  
- Ivery, Jim  
  - CalifWORKs / EOR&S  
- Johnson, Colleen  
  - Administrative / Student Services  
- Neklason, Judy  
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- Olson, Michael  
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- Roesser, Sally  
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  - Student Services  
- Vannoy, Millie  
  - Microcomputer Specialist  
- Williams, Angie  
  - Computer Lab Services  
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- Beatty, Heather  
  - Outreach/Tutorial  
- Bolton, Carol  
  - Business Office  
- Bozarth, Mary  
  - ITFS / LRC  
- Clem, Renata  
  - Assessment / Matriculation  
- Cruz, Maria  
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- Davis, Janet  
  - Center Supervisor  
- Falls, Beverly  
  - Admissions  
- Franco, Rochelle  
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- Jackson, Don  
  - Campus Police  
- Jennings, Gina  
  - English Lab  
- Langford, Rebecca  
  - Bookstore  
- Lewis, Jeff  
  - Micro-Computer Specialist  
- List, Gayle  
  - Library  
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