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REVISION OF CATALOG

The College Catalog is printed in the Spring of each year and does not reflect new courses, new programs or other changes required by rules, regulations, policies or procedures since that time. Such changes will be documented in a mid-year Addendum that will be available each January. Updated information can be found on the CRC College Catalog website at: www.crc.osiibs.edu/catalog/
Welcome to Cosumnes River College

I am pleased to present this informative catalog as a helpful tool in supporting your decision to pursue a college education. This catalog is an essential resource for navigating and deciding on your course of study. It is a valuable road map for exploring academic and career fields, college services and program requirements here at CRC.

I think you’ll find our 2014-15 catalog offers a variety of courses in transfer, basic skills, and career and technical areas, with new classes in Art Gallery Operations, Theatre Script Analysis, Technical and Professional Communication, and Entrepreneurial Opportunity and Business Planning. In addition, eighteen new transfer degrees have been developed and are now available to students wishing to transfer to a California State University with a guaranteed maximum 60-unit requirement in various majors including Business Administration, Communication Studies, Mathematics, Physics, Psychology, Sociology and Theatre Arts. The catalog also showcases our comprehensive services including Assessment, Counseling, Admissions and Records, Financial Aid, Tutoring, and Library Services—resources that provide you with the information and support you need to succeed in the educational program of your choice.

CRC’s motto of “Seek Knowledge” is an enduring focus for our faculty and staff and a lifelong pursuit we strive to instill in all our students. We proudly serve more than 14,000 students who are enrolled in diverse courses and degree and certificate programs.

Over the past decade, there have been significant changes to the campus “footprint” as part of our ongoing effort to provide a dynamic, supportive learning environment for the students and the area we serve. South Sacramento, Elk Grove, and other surrounding communities have grown tremendously since the founding of CRC in 1970. We have matched the region’s growth with new academic programming, innovative teaching strategies, expanded services, and improved technology to help students achieve their educational goals. During the past year, the college opened new facilities including the Elk Grove Center, the Winn Center for Construction and Architecture and new athletic facilities.

Cosumnes River College offers the personalized attention of a small college setting, yet provides the rigorous, comprehensive postsecondary education FOR YOU, OUR STUDENT! Our faculty and staff care about your success and everyone on campus strives to provide the means for you to realize your dreams!

Sincerely,

President
2014–2015  Academic Calendar

SUMMER SESSION 2014
Instruction begins for 1st session......................................................................................... June 9
Instruction begins for 8-Week / 2nd Session ........................................................................ June 16
Instruction begins for 6-week / 2nd session ........................................................................... June 23
Last Day to Petition for August Graduation and Certificates .................................................. June 27
End of 4-Week / 1st Session .................................................................................................. July 3
Independence Day holiday ...................................................................................................... July 4
Instruction Begins - 4-Week / 2nd Session ............................................................................. July 7
End of 6-Week / 1st Session .................................................................................................. July 18
End of 8-Week 1st Session .................................................................................................. August 1
End of 4-Week / 2nd Session................................................................................................. August 1
End of 6-Week / 2nd Session ................................................................................................ August 1
End of 8-Week 2nd Session ................................................................................................ August 6
Grades due ............................................................................................................................... August 11

FALL SEMESTER 2014
Instructional Improvement Days for Faculty ........................................................................ August 21-22
Instruction begins .................................................................................................................. August 23
Labor Day holiday.................................................................................................................. September 1
Last Day to Petition for December Graduation and Certificates ........................................ October 3
Veterans Day holiday .............................................................................................................. November 11
Last day to drop full-semester classes .................................................................................. November 18
Thanksgiving holiday ............................................................................................................. November 27-30
Semester ends ......................................................................................................................... December 18
Winter recess .......................................................................................................................... December 19 - January 1
Grades due ............................................................................................................................... January 2
Semester Break ....................................................................................................................... January 2-14

SPRING SEMESTER 2015
Instructional Improvement Days for Faculty ........................................................................ January 15-16
Instruction begins .................................................................................................................. January 17
Dr. Martin Luther King’s Birthday holiday ............................................................................. January 19
Lincoln’s Birthday holiday ..................................................................................................... February 13
Washington’s Birthday holiday ............................................................................................. February 16
Last Day to Petition for May Graduation and Certificates .................................................. March 6
Last day to drop full-semester classes .................................................................................. April 19
Spring recess .......................................................................................................................... March 30 - April 5
Graduation / End of semester .............................................................................................. May 20
Grades due ................................................................................................................................ May 26
Memorial Day holiday ......................................................................................................... May 25

Note: Fall and summer registration take place at the same time. A complete calendar including important deadlines can be found in the class schedule. eServices is available every day, including holidays. Online services are available every day through the college website at www.crc.losrios.edu. Access to online services may be limited during Priority registration and during system maintenances.
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CRC is located near the southern edge of Sacramento, at the heart of some of the city’s fastest-paced suburban development. Partnerships with local, state and national business, industry and organizations offer our students the best in educational programs and facilities.

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

**Cosumnes River College Mission Statement**

**Vision Statement**
Cosumnes River College is an innovative educational and community center that prepares and empowers students to realize their unique potential to transform their lives and contribute to a just and democratic society as global citizens. CRC strengthens the cultural, social, and economic well-being of the region through its development of an educated and engaged citizenry whose decisions are informed by intellectual inquiry and scholarship, a pluralistic world view, and respect for humanity and the environment.

**Mission Statement**
Cosumnes River College is an open access, student-centered, comprehensive community college that prepares students to realize their educational and career aspirations through exemplary transfer, general, and career education in an academically rigorous and inclusive environment. CRC also offers exceptional instruction in basic skills and English for non-native speakers, as well as a broad array of life-long learning, community service, and workforce development programs.

**Values Statement**
As a community of scholars and practitioners with a deep commitment to equity and social justice, CRC values teaching and learning excellence and high academic standards sustained by academic integrity, fairness and mutual respect, and an ethic of care. The College’s core values of cultural competence and diversity, continuous learning and assessment, exceptional student services, and innovation are central to our collegial and environmentally responsible academic setting.

**Statement Concerning the Value of Cultural Competence at CRC**
Cosumnes River College is a comprehensive community college within the Los Rios Community College District with a diverse student and staff population. We strive to provide an environment where cultural competence is the norm.

**Definition of Cultural Competence**
Cultural competence is an ongoing process of increasing proficiency in the ability to assess and revise individual and organizational behavior in response to an expanded understanding of culture. Culture refers to an integrated pattern of collective behavior including habits, customs, values, beliefs, and institutions. Cultural competence is associated with attributes, knowledge and skills that enable individuals and organizations to demonstrate respect and value for each person and to manifest an understanding of the dynamics of difference.

Cosumnes River College pursues attitudes, values, and practices that promote healthy, constructive interactions in a diverse community and enable the college to work effectively with our diverse students.

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**About the College**

To promote cultural competence and create an inclusive learning environment, CRC values:

1) Diversity and pluralism
2) Continuous personal and professional development, assessment and revision
3) Awareness of the dynamics of cross-cultural interactions
4) The ongoing pursuit of teaching strategies and student services that better serve diverse populations
5) An environment of respect, equity, and justice

**Snapsots of Student Demographics (Fall 2013 Census)**

- Enrollment at CRC was approximately 14,197 students.
- CRC served a diverse community including many students of mixed heritage. The composition included: 30% Asian-American/Pacific Islander, 24.3% White/European American, 23.1% Hispanic/Latino, 14.1% African American/Black, 5.6% Multi-Race/Multi-ethnic, 1.5% Unknown, 0.9% other Non-White and 0.6% Native American.
- CRC served the younger as well as the older student with almost 61% of the student population under the age of 25 and almost 13% over the age of 39.
- The ratio of female students to male students was approximately 55% female and 44% male. One percent of our students selected unknown as their gender.
- According to the Spring 2010 UCLA Diverse Learning Environments Survey, more than 18% of our students identified they were bisexual, gay, lesbian or questioning their sexual orientation.
- Almost 43% of CRC students were first-generation college students.
- CRC students come from varied economic backgrounds with 41.6% of students reporting incomes considered below poverty and approximately 26% of students reporting incomes that are considered middle income.
- Almost 55% of CRC students attended classes only during the day and approximately 14% of students attended only at night. Slightly more than 20% of students took classes during the day and evening. Almost 11% of our students were enrolled in classes that have no regular meeting pattern, most of which were online or hybrid classes.
- Most students attended part time with approximately 25% taking fewer than 6 units and 42.6% enrolled in 6 to 11.9 units.
- Approximately 4.8% of CRC students received services through the Disabled Students Program.

**General Education**
The college is committed to the principle of providing a broad general education that includes: Natural Sciences, Social and Behavioral Sciences, Humanities and the Arts, Language, and Critical Thinking. The college continues to offer other courses that enhance lifelong learning and prepare students for the needs and demands of everyday life. All of 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 are continually developing lower division educational programs that parallel the first- and second-year courses of those institutions. (See Transfer and Career Center on page 15). Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

Career/Technical 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.

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 Community College District’s Center for Business and Economic Development. For more information about these offerings, see page 5.

Professional 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 and professional development opportunities 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 8-10).

Counseling
A variety of counseling services are available to help students realize their academic, career and personal goals. Seeing a counselor is important for clarifying course requirements of programs of study and to explore program and career options. (See page 12).

Career Services
Career services are available in the “one stop” Transfer and Career Center. Students may research careers or educational programs and receive assistance with career-related activities. (See page 16).

ACCREDITATION
Cosumnes River College is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, 10 Commercial Blvd., Ste 204, Novato, CA 94949, phone (415) 506-0234, 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 Medical Assisting Education Review Board (MAERB) of the American Association of Medical Assistants (AAMA), on recommendation of the Medical Assisting Educational Review Board (MAERB) of the AAMA. The Health Information Technology Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAHCAP) in cooperation with the Council on Accreditation for Health Informatics and Information Management Education (CAHIIME) of the American Health Information Management Association. The Pharmacy Technology program is accredited by the American Society of Health-System Pharmacists. 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.

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 who are high school graduates or the equivalent who are 18 years of age or older and capable of benefiting from the education that is offered without regard to ethnic background, race, color, marital status, religion, national origin, age, age over forty, gender, sexual orientation, physical or mental disability or veteran status. These programs and services are open to all persons.

Equal Opportunity
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 ensure equal 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.
HISTORY AND FACILITIES

Cosumnes River College is one of four 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. At that time, facilities included the Library, Science, Physical Education, Swimming Pool, Technology and Automotive buildings. In September 1975, the Business/Social Science classroom and office building was dedicated, the first since the college opened. The computer laboratories, located there, are equipped with state-of-the-art computer equipment that supports many areas of the college curriculum.

In 1982, the Animal Health Technology buildings were opened. The College Center opened in Fall 1990 with a cafeteria to serve students/staff and facilities for the instructional foodservice program. Phase II of the College Center opened in June 1991 with facilities for Administration, Admissions/Records, College Store, Business Services, and Financial Aid, which has since moved to the Library building. A Visual and Performing Arts complex was opened in October of 1995, completing the college’s original facilities master plan. The Community and Athletic Center was completed in 1999 and a permanent Child Development Center was completed in March 2002. In December 2003, faculty and staff moved into the new Southeast Office Complex (SOC), which met a growing need for additional offices.

In Fall 2005, the Learning Resource Center building was dedicated, providing additional classrooms, learning laboratories and offices. The Operations and Public Safety Building was opened for Fall 2007, housing College Police, Health Services, Operations and Printing Services. In 2011, a new Greenhouse was completed followed by the Northeast Technical Building in 2012 which houses instructional space and laboratories for the Construction, Horticulture, and Welding programs. Also in 2012, new athletic fields were completed, including a synthetic turf field in the Stadium and new competition baseball, softball and soccer fields. Most recently, the campus opened a new Parking Structure and the Winn Center on the main campus and Elk Grove Center in the City of Elk Grove to expand its instructional and office facilities. Currently, construction is in progress for a new Light Rail and Bus Transfer Station on campus as Regional Transit expands its South Line to the CRC campus by the end of 2015.

Planning is underway for additional instructional facilities to be completed over the next few years. 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 (916) 691-7251.

OUTREACH PROGRAMS

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

Learning sites are primarily tied to the main campus through the instructional television system and online classes. These systems enable 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 interactive television and online 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.

Greater Sacramento Small Business Development Center (SBDC)
The Sacramento Small Business Development Center offers personalized business counseling in:

- Business Management
- Finance Resource
- Marketing Strategy

To make a confidential appointment, call the SBDC at (916) 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 Business and Economic Development Center
Customized training and education for employers and their employees in the Sacramento area is offered by CRC in collaboration with the Los Rios OOC 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 Center 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 Center has provided training to more than 58,000 Sacramento area employees, including Intel, Bank of America, Aerojet General, SMUD, among others, and many state and local public agencies and school districts. For more information, call (916) 563-3230.
HOW AND WHY YOU SHOULD USE THIS CATALOG

Would you start out on a road trip to a new place without first obtaining a map of where you’re going for the easiest route to get there? Probably not! It makes sense that before you invest time and money in your college education, you should take some time to plan your route. The College Catalog has “a great deal” of valuable information on how to map out your educational pathway. Reviewing the College Catalog is similar to logging onto the Internet for MapQuest, or other mapping directions; it can tell you the best way to get from Point A to Point Z.

A quick overview of the College Catalog can help you to better understand the following topics:

- The Academic Calendar for the summer, fall and spring semesters, outlining major deadlines and school holidays
- Admissions requirements and procedures
- A list of major programs of study, as well as degrees and certificates that are offered
- Graduation requirements
- Availability of student support services, such as tutoring, counseling, library services, financial assistance, just to name a few – to help you with career decision-making, problem resolution and goal achievement
- Detailed descriptions of courses, including prerequisites
- Lists of courses transferable to the major university systems in California
- And many other helpful tips

The best place to start when looking up information is the Index, which is located at the back of the catalog. Topics are listed in alphabetical order, making whatever you’re looking for easy to find – everything from Academic Regulations to Work Experience (Internship) opportunities. Spend some time perusing your College Catalog and keep it close to your work area, as you will want to consult it routinely throughout your college career.
**DIRECTIONS TO CRC MAIN CAMPUS:**

**NORTHBOUND - HWY 99**
Exit at Cosumnes River Boulevard/Calvine Road. Turn left onto overpass, turn left at Bruceville Road light, and enter at East CRC entrance; OR after left onto overpass, turn left at the Center Parkway light and enter at the West CRC entrance.

**SOUTHBOUND - HWY 99**
Exit at Cosumnes River Boulevard/Calvine Road, Turn right, then turn left at the Bruceville Road light, and enter at the East CRC campus entrance; OR after turning right onto CRC Blvd., turn left at Center Parkway light and enter at the West CRC entrance.

**DIRECTIONS TO ELK GROVE CENTER:**

**NORTHBOUND - HWY 99**
Exit at Elk Grove Boulevard. Turn left onto overpass, turn left at Big Horn and continue to center entrance.

**SOUTHBOUND - HWY 99**
Exit at Elk Grove Boulevard, turn right, turn left at Big Horn Blvd and continue to center entrance.
Admission Requirements & 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.

Matriculation services are designed to ensure that community college students receive every opportunity to achieve their educational goals.

WHO IS ELIGIBLE TO APPLY FOR ENROLLMENT?

Cosumnes River College is open to all residents who are high school graduates or who are at least 18 years of age and able to benefit from the instruction offered. Questions regarding eligibility should be directed to the Admissions and Records Office. A completed application with declared residency and signature page must be on file prior to enrolling (registering) in classes. Others may be admitted upon approval by the college. If you are a permanent resident, verification of your residency may be required.

COURSES OPEN TO ALL

Every course, course section, or class offered within the Los Rios Community College District that receives state support is open to all students who have been admitted to the colleges and meet the course requirements (prerequisites), unless specifically exempted by law, and as may be established according to Chapter II, Division 2, Part VI, Title 5 of the California Administrative Code, commencing with Section 51006.

Limited English Proficiency

Career/Technical education classes are open to all students. Although the lack of proficiency in English is no barrier to enrollment in vocational education courses, it is suggested the students deficient in English utilize the services of the college that are provided for persons who are limited in English proficiency or take courses in English as a Second Language.

Contamos con Clases de Educacion

Vocacional para distintas ramas del trabajo abiertas a todos los estudiantes y, aun para aquellos que todavía no dominan el idioma inglés. Aunque la falta de conocimiento del idioma inglés no es un impedimento para registrarse endichos cursos, sugerimos a los estudiantes deficientes en el idioma ingles o para aquelos que estudian ingles v como segunda lengua.

Advanced Education for High School Students

The college may allow currently enrolled high school students, who are age 16 or older and have completed the 10th grade with a 2.7 GPA, to enroll for advanced educational enrichment with the approval of their school principal /counselor and parent/guardian. These advanced education students (taking no more than 2 courses) 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 (916) 691-7316.

Determination of Residency

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 and Records 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 and Records 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.

Under Assembly Bill 540, some non-resident students may be eligible for a waiver of non-resident tuition fees. Interested students should contact the Admissions and Records Office to discuss eligibility. Qualified students are still responsible for the per unit general enrollment fee.

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

Residency Reclassification Requests

Students may apply for reclassification to California resident by completing a reclassification application and providing sufficient documentation to support California residency. State requirements to become a California Code of Regulations (Title 5).

Under California law, to be reclassified from a non-resident to a California resident, a student must clearly demonstrate:

1. Physical presence in California,
2. Intent to reside in California permanently, and
3. Financial independence, if the student was classified as a non-resident in a preceding term.

Please see the Admissions and Records Office for the reclassification application and instructions.

Undocumented Students

Under Assembly Bill 540, a student (non-U.S. citizen) who is residing in the United States without official authorization from the U.S. Immigration and Naturalization Service (INS) may be eligible for a waiver of non-resident tuition fees. Interested students should contact the Admissions and Records Office to discuss eligibility. Qualified students are still responsible for the per unit general enrollment fee. All inquiries are strictly confidential, and the student’s information is not reported to any outside agencies.

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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
Persons interested in enrolling must file an application by going to the college Website at www.crc.losrios.edu.

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 the section on Academic Dismissal in this catalog)

Admission for Veterans and/or Dependents
Students should contact Veterans Services, located in the Admissions and Records 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 Veterans Services 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 (member copy 4) separation paper must be submitted to Veterans Services in the Admissions and Records Office.

For more information, veterans or dependents should contact Veterans Services in the Admissions and Records Office or call (916) 691-7422.

Admission for International Students
International students who wish to enter Cosumnes River College must contact the Admissions and Records Office and the International Student Office (located in the Vice President of Student Services 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 intend to enroll.

If accepted, international students will complete the admission process. A Certificate of Eligibility, Form I-20, is issued to indicate final acceptance. To be certified as full-time students with the USCIS (U.S. Citizenship and Immigration Service), international students must enroll in a minimum of 12 units and must maintain a 2.0 ("C") average at all times. Students must report any reduction in course/unit load to the International Student Office of as soon as possible.

International students must pay the International Student Tuition Fee (Check Class Schedule for Current Fees) in addition to the per unit fee and capital outlay fee.

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 located in the Operations and Public Safety building. (No appointment necessary except for TB skin testing)

Beginning each semester, students on F visas are required to show evidence of approved health insurance coverage. Health coverage must be maintained throughout the duration of their studies.

ORIENTATION AND ASSESSMENT
All new students are required to complete online orientation and assessment. Completing the online orientation is the best way to begin your college experience. The orientation provides student with important information that aids in the transition to college. The online orientation can be found on our website at www.crc.losrios.edu/onlineorientation.

Reading, writing, and math skills are essential for learning and understanding all subjects. It is helpful for students to know their level of performance in these areas. Assessment in these subjects will show educational strengths and challenges. This is helpful for planning a course of study. Assessment results, along with high school records, educational and employment experiences, current work schedule and motivational levels are used by counselors to create Student Educational Plans. (See page 12 for more details on Assessment Services.)

COUNSELING
All students should meet with a CRC Counselor to develop an individualized Student Educational Plan (ISEP). New students may participate in a group counseling (with other new students that may be in our classes) and have an opportunity to discuss academic expectations, student success programs, and select classes for registration. Students who complete orientation, assessment, and counseling are eligible for priority registration. To schedule an appointment contact the Counseling Office at (916) 691-7316.

REGISTRATION
Complete registration instructions are in the schedule of classes each semester. Online and in-person registration is available during registration periods. Check 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 and Records (A & R) Office. Students with degrees earned outside of the U.S. must have their transcripts evaluated and/or translated by an accredited agency providing this service. The A & R Office must receive official transcripts of 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 Educational Plan. Students are encouraged to make an appointment early in the semester to ensure preparation for the following semester’s registration. The best months to make an appointment are September, October, November and February, March and April.

BUSINESS SERVICES FEE REQUIREMENTS

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

General Enrollment Fees
All students must pay a per unit general enrollment fee. (Check Class Schedule for current enrollment fees.) The California Community College Board of Governors provides a waiver of fees for qualified students (see page 19 of this catalog for financial assistance information).

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

Non-Resident/International Tuition
Students classified as non-residents (see “Determination of Residency,” page 9 of this Catalog) are required to pay a per unit non-resident tuition fee, plus the per unit general enrollment fee. (Check Class Schedule for current enrollment fees.)

Capital Outlay Fee
Non-resident and international students will be assessed a per unit fee for capital outlay purposes in addition to the per unit general enrollment fee and per unit non-resident/international tuition. (Check the Class Schedule for Current Fees.)

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

Student Access Card/Universal Transit Pass
A mandatory fee was imposed by students in the Los Rios District in order to provide affordable public transit options for all students. This fee is determined by the number of enrolled units in a semester. Visit the college website for more information on the various uses for the Student Access Card/UT Pass. (www.crc.losrios.edu) (Check the Class Schedule for current fee.)

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. (Check the Class Schedule for current fees.)

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 a discount. (Check the Class Schedule for details.) 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 or online. 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 a small fee if the proof of sale or repair of vehicle and the old decal (decal number intact) are submitted to the Business Services (Cashier) Office.

Field Trip Fees
Some classes may include a field trip. Fees, if any, for a field trip will be included in the course section information of the class schedule. Students who do not have sufficient funds for field trips may qualify to have their fees waived or may be given an alternate assignment, as appropriate.

FEE REFUNDS

For all semester lengths, fees for enrollment, tuition, international capital outlay, parking and the UTP Pass are refundable. Application and installment payment plan fees are not refundable.

For all semester length courses, enrollment, tuition, and capital outlay fees are refundable through the Friday of the second week of instruction. Short-term courses are refundable through the Friday of the first week of instruction.

It is the responsibility of the student to apply for fee refunds. To be eligible for processing, the student must:

- Drop classes online or in person at the Admissions and Records Office. Check Class Schedule for the current semester’s deadlines to drop for a refund.
- Submit a refund request form to the Business Services (Cashier) Office or online no later than the last day of the semester or session currently being completed, or the refund will be disallowed. Credit balances will be forfeited and do not carry over to the next semester/term.
- Prorated refunds are not available under current legislative law. A check will be mailed to eligible students approximately eight weeks after the refund application is submitted.

FEDERAL EDUCATION TAX CREDITS
(American Opportunity Credit and Lifetime Learning Credit)

Students (or parents of dependent students) may be able to obtain federal tax credits for enrollment fees if the student is enrolled in at least 6 units during any semester or summer session, and the student meets the other conditions prescribed by federal law. Students who consent to online access can view and print the IRS Form 1098-T through eServices by January 31 of each year. For eligible students who do not consent to online access, the IRS Form 1098-T will be mailed by January 31. More information on the American Opportunity Credit or Lifetime Learning Credit is available on IRS Form 8863 at the following web address: http://www.irs.gov/newsroom/article/0,,id=205674,00.html OR http://www.losrios.edu/lrc/1098T.php
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 (Room L106C), provides testing services for initial placement into English, Math and English as a Second Language (ESL) classes. Other services include the Ability to Benefit exam for students who do not have a high school diploma or equivalency and are applying for Financial Aid assistance, as well as assessing graduation competency for Reading and Math. There is no charge for assessment services. For assessment dates, please log onto www.crc.losrios.edu, then link to Support Services and then link to Assessment. You may also call (916) 691-7332 for more information. Students with special testing needs should call the Disability Support Programs and Services Office at (916) 691-7275.

CAMPUS POLICE

The Campus Police Office is located in the Operations and Public Safety 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 students. In addition to assisting and handling cases of emergencies, this office handles all parking enforcement and appeal processing, the lost and found, vehicle jumpstarts and lockouts, and police escorts. You can reach the campus police at (916) 588-2221 (24 hours) or (916) 691-7594 (Fax number).

CAREER SERVICES

See Transfer and Career Center, page 17.

CHILD DEVELOPMENT CENTER

The Child Development Center, located on the eastside of the campus, provides education and child care for children of Cosumnes River College students. The Center gives priority to low income parents who meet income eligibility and demonstrated need guidelines. Other children are admitted on a sliding fee scale as space permits.

The Preschool programs serve children 3 years through 5 years. The School Age program serves children Kindergarten through 10 years before and after school and during “off track days”.

The CRC Child Development Center programs offer developmentally appropriate and stimulating environments with a variety of planned activities. The Center also serves as lab school for students of Early Childhood Education.

For more information about your child care needs and hours of operation, call the Center at (916) 691-7380.

COLLEGE CAFETERIA

The college cafeteria serves a two-fold purpose. The state-of-the-art cafeteria facility provides a safe working environment for students in the instructional Culinary Arts Management program. Open for breakfast, lunch, and dinner, Monday through Thursday, and breakfast and lunch on Friday, the cafeteria provides balanced meals and snacks for the campus community during the Fall and Spring semesters. The cafeteria is open during the summer session for breakfast and lunch only. Vending machines are also available at various locations throughout the campus.

COLLEGE STORE (Hawks Nest)

The College Store, located beside the College Center building, carries a complete stock of new and used textbooks, rental textbooks, digital textbooks, paper supplies needed for classes, CRC souvenir sweatshirts, T-shirts and binders. Textbooks may also be ordered online for in-store pickup or shipping. Please allow 24 hours for store pickup.

Payment Policy

• Checks are accepted with valid driver’s license, student ID number, and current phone number.
• Checks must be made out to the CRC College Store for the exact amount.
• All returned checks will incur a $25 service charge.
• All major credit cards (VISA, MC, Discover, American Express) are accepted. The card must be signed by the card bearer.

Refund Policy

AN ORIGINAL, DATED SALES RECEIPT and a current student I.D. or Driver’s License IS REQUIRED FOR ALL RETURNS.

COURSE BOOKS:

• A refund will be given in your original form of payment if textbooks and rental textbooks are returned no later than the Friday of the first week of Instruction. Books can be returned no later than Friday of the second week of Instruction with Proof of Drop.
• Short-term classes: Last day for a refund will be no later than the Friday of the first week of instruction. (You may be asked for proof of schedule.)
• Books purchased NEW must be returned in the same condition in which the book was originally purchased. The Books purchased MUST be free from writing, marks, bent corners and completely intact. If not, the USED purchase price may be refunded.
• Books purchased in shrink-wrap, that may be opened, must be returned with all accompanying components (example: CD, study guides, etc.).
• Access codes must be unused and/or not scratched off. CD envelopes must be unopened and any access codes must be unused and/or not scratched off.
• Without exception, when a used book is exchanged for a new book, the price difference must be paid.
• Digital textbooks are not refundable if activated or “scratched”.

GENERAL INFORMATION:

• Merchandise with a manufacturer’s defect will be replaced with like merchandise.
• Supplies not in original packaging, in opened packaging, or not in new condition may not be returned.
• Sale merchandise is NOT refundable.

SOFTWARE:

• Software must be in original, unopened packaging.
• If software CD is defective, it can be exchanged for a replacement as long as all of the original contents, packaging and the damage CD has been returned.

RENTAL AGREEMENT POLICY

• The student must be at least 18 years of age.

• The student agrees to enter the “Textbook Rental Agreement” with the Hawks Nest College Store of their own free will and agrees to return the rented materials to the Hawks Nest College Store. All rental books must be returned to the college store no later than Friday during the last week of finals.

Refund Policy

AN ORIGINAL, DATED SALES RECEIPT and a current student I.D. or Driver’s License IS REQUIRED FOR ALL RETURNS.

COURSE BOOKS:

• A refund will be given in your original form of payment if textbooks and rental textbooks are returned no later than the Friday of the first week of Instruction. Books can be returned no later than Friday of the second week of Instruction with Proof of Drop.
• Short-term classes: Last day for a refund will be no later than the Friday of the first week of instruction. (You may be asked for proof of schedule.)
• Books purchased NEW must be returned in the same condition in which the book was originally purchased. The Books purchased MUST be free from writing, marks, bent corners and completely intact. If not, the USED purchase price may be refunded.
• Books purchased in shrink-wrap, that may be opened, must be returned with all accompanying components (example: CD, study guides, etc.).
• Access codes must be unused and/or not scratched off. CD envelopes must be unopened and any access codes must be unused and/or not scratched off.
• Without exception, when a used book is exchanged for a new book, the price difference must be paid.
• Digital textbooks are not refundable if activated or “scratched”.

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• Merchandise with a manufacturer’s defect will be replaced with like merchandise.
• Supplies not in original packaging, in opened packaging, or not in new condition may not be returned.
• Sale merchandise is NOT refundable.

SOFTWARE:

• Software must be in original, unopened packaging.
• If software CD is defective, it can be exchanged for a replacement as long as all of the original contents, packaging and the damage CD has been returned.

RENTAL AGREEMENT POLICY

• The student must be at least 18 years of age.

• The student agrees to enter the “Textbook Rental Agreement” with the Hawks Nest College Store of their own free will and agrees to return the rented materials to the Hawks Nest College Store. All rental books must be returned to the college store no later than Friday during the last week of finals.
**COLLEGE STORE - continued**

- **Rental Fee Refund.** Rental Fee refunds will be granted up to the first Friday of Instruction or the second Friday with drop. The book needs to be in the same condition as it was when it was rented along with the original, dated sales receipt.

- **Failure to Return.** Failure to return the rented materials by the “Rental Return Due Date” or returning them in unsalable condition will cause the college store to put the student's records on hold and charge the Failure to Return Fee to the credit or debit card on file. (1) replacement fee (retail book price less rental fee paid), PLUS (2) a processing fee of 20% of the retail book price. The Hawks Nest College Store is not responsible for reminding the student of the “Rental Return Due Date.” Returns will not be accepted after the “Rental Return Due Date” and once the Failure to Return Fees are paid, the book is yours to keep. The Failure to Return Fee is in addition to the original Rental Fee.

- **Credit Card Declined.** If the student fails to return the rental book by the Rental Return due date and the credit card provided is declined, the college store will send the overdue account to the collection agency and the college store will charge, in addition to the Failure to Return Fees, a $39.00 processing fee for each book rented. Plus, the collection agency may charge additional fees. The student's records will not be released until all outstanding fees are paid.

- **Conditions upon Return.** Highlighting and writing in rented textbooks is permitted and acceptable. However, rented materials must be returned in complete and salable condition. This means the spine of the book is intact, there is no damage to the book, and all component parts of the book must be presented. **WATER DAMAGE IS NOT ACCEPTABLE.** The student should be responsible for any loss or theft of the rented materials. CD's included in a rental book must be returned with the rental book, in undamaged condition.

- **Card as Security.** The student agrees not to cancel or exceed the purchasing limits of the credit or debit card provided until the rented textbooks are either returned to the Hawks Nest College Store or the Failure to Return Fees are paid.

- **Tax.** The normal tax rates will apply

**BUYBACK POLICY**

- The college store cannot guarantee the buyback of any book at any time.

- Best time to sell books is during FINALS WEEK

- Student I.D. or Driver's License is required

- Buyback is a privilege

- During the end of the semester (during final exams) the college store will pay up to 50% of the RETAIL PRICE for textbooks that will be used at CRC the following semester. Market value will be paid for most textbooks in good resalable condition that are NOT needed at CRC in the following semester but are current elsewhere. All textbooks must be in good, resalable condition.

**SERVICES PROVIDED**

- The college store sells postage stamps, gift cards, pay-to-print cards, parking pass holders and software at educational prices... proof of current enrollment is required to purchase software.

The college store is responsible for all college store operating costs. College store profits are used to support instructionally related programs and projects on campus. The Board of Trustees of the Los Rios College District governs the store.

For more information on buyback dates and times, hours of operation and days open, please call (916) 691-7319 and/or search online at www.crc.losrios.edu/CollegeStore.

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**COOPERATIVE WORK EXPERIENCE EDUCATION & INTERNSHIPS (Co-op)**

Cooperative Work Experience Education and Internships (Co-op) is an academic program that allows students to apply what they have learned in the classroom to their job or internship site while 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 50-minute weekly class is required which focuses on workforce and career transition. Internship and job assistance are 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 (916) 691-7372 or visit https://wexp.losrios.edu

**COUNSELING**

Counselors are available throughout the year on appointment or drop-in basis. Counselors are located in the Counseling Center on the 2nd floor of the Library Building, L-200 (691-7316).

The counseling faculty 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 in College Success, Study Skills, Career Exploration, and Human Services courses.

- 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.


**DISABILITY SUPPORT PROGRAMS & SERVICES (DSP&S)**

Disability Support 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. The Disability Support Programs & Services Center is located in Portable 57/58. For more information, call (916) 691-7275 (voice) or (916) 691-7273 (TDD).

**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) and scribes.
- 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.

Students with verified disabilities who do not wish to avail themselves of the services of the Disability Support Programs and Services may still be eligible for reasonable accommodation and service. Contact the Dean at (916) 691-7350.

**Alternate Formats**

Students with verified disabilities who require alternate formats of college publications and resources should check with Disability Support Programs & Services office. Materials available include, but are not limited to, Braille, large print, books on tape, and electronic text. These formats help accommodate our students’ specific needs and are created in a timely fashion. Contact the Disability Support Programs & Services Office at (916) 691-7275 (voice) or 691-7273 (TDD).

**Programas y Servicios Para Estudiantes Incapacitados**

La Oficina de Programas y Servicios para Estudiantes Incapacitados ofrece servicios de apoyo a estudiantes que tengan incapacidades físicas, psicológicas, lingüísticas y de aprendizaje. Algunos de los servicios que se ofrecen son: ayuda con la inscripción y con la selección de clases, asesoramiento académico y vocacional, tutorías, intérpretes, facilidades para tomar exámenes, ayuda para tomar apuntes, y el dictado de textos a audio. Para más información, comuníquese con el decano de servicios para estudiantes, al (916) 691-7275 o (916) 691-7273 (TDD).

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 Student Services/Counseling for consideration. The student has a right to appeal any decision regarding academic accommodations. See the DSP&S Coordinator for more information.

**EXTENDED OPPORTUNITY PROGRAMS AND SERVICES (EOP&S)**

(See Student Support Center, page 16-17).

**FINANCIAL AID SERVICES**

The Financial Aid Office, located in the Library Building L107, can provide the “Financial Aid Student Guide” which describes available programs, how to process an application, and lists important dates to remember. The guidebook is available upon request. For additional information, please refer to the “Financial Assistance” section of this catalog. (See page 19).

**HEALTH SERVICES**

The college maintains a Health Services office staffed by College Nurses 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 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 that exceeds first aid can be given.

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

Appointments are advised for general health issues and are necessary for TB skin testing. The Health Services Office is located in the Operations and Public Safety Building. Phone: Health Office (916) 691-7254

**JOB INFORMATION**

The Los Rios Internships & Career Services (LINC) to HIRE EDUCATION is a Website designed to meet recruitment, job and internship search needs for CRC and all Los Rios colleges’ students. Employers are able to post jobs and internships. Students are able to search for full time and part time jobs, CalWORKs work study jobs and internships. The Career Center encourages all departments and student services interested in hiring students to work in their department/area to use the LINC system for posting student jobs.

Employers, including on campus employers can register and post positions at: www.myinterface.com/losrios/employer

Students, alumni, and community members can register and search for jobs and internships at: https://www.myinterface.com/crc_losrios/student

Additional information is available by calling (916) 691-7456.
LIBRARY

The Library at Cosumnes River College is located in the three-story Library building situated in the center of the campus. Its research collection, professional staff, and technology provide ideal study and research facilities.

The library has a variety of books, media and periodical titles. Tools for accessing library, information, and learning resources include the library catalog (LOIS, the Los Rios Online Information System), full-text periodical databases, and the Internet. Access to these tools is available on more than 60 computer stations within the library. Computers with software and hardware designed for students with low vision, no vision, and/or learning disabilities are available. Remote access to LOIS, the library’s web-based catalog, and periodical databases is also available 24/7 through the CRC Library homepage at www.crc.losrios.edu/Library.

All college course offerings and information competency requirements are supported through library instructional sessions, reference services, and acquisition of materials supporting student research and faculty requests.

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 and Records Office and must be submitted during the semester of attendance. Additional information may be obtained from the Admissions and Records Office.

MATH CENTER

The Math Center is located in the Learning Resource Center building in room LRC-205. Staffed by math instructors, instructional assistants, and experienced student tutors, the Math Center provides resources and support to help CRC students be successful in their math courses. The Math Center offers drop-in tutoring, study groups for basic skills learning communities, support for courses with technology-based homework, multi-media support for course textbooks, and computer support for online math and statistic classes. Sign up for the applicable Math lab course (MATH 71, 72, 73, 74, 75, 76, 77, 78, 79) to use the Math Center services in conjunction with a math class. Students not enrolled in a math class who wish to join the scheduled “math boot camp” sessions or who wish to work independently to brush up on math skills or prepare for placement or employment exams sign up for MATH 83.

MESA/CCP

The Math Engineering Science Achievement 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 succeed in college and explore their 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, graduation and transfer requirements. Students can find both publications on the CRC website. They can also purchase a catalog from Admissions or the College Store.

The college newspaper, THE CONNECTION, is published under the general supervision of the Journalism Department at CRC.

The Radio, Television and Film Production department produces the "CAMERA ONE" news magazine show for local cable access TV six times per semester.

A FACULTY & STAFF HANDBOOK is online to provide pertinent information, both general and specific, to college faculty and staff.

READING/Writing CENTER

The Reading/Writing Center (RWC), located in LRC-203, is a place where students can get help with their reading and writing assignments. Staffed by English professors, an instructional assistant, and student tutors, the RWC is also equipped with a large number of computers that students can use to compose their essays or to access the Internet for class assignment research. For a focus on writing assistance, sign up for one of the following courses: ENGLB 70, 72, 73, or 74. For a focus on reading assistance, sign up for one of the following courses: ENGLB 75, 76, 77, or 78. Students can call (916) 691-7123 for more information.
STUDENT DEVELOPMENT

The Student Development Office, located in Library Building, L103, offers a variety of ways for students to become involved:

General Information
This Student Development Office maintains a current housing list and an updated Housing Board in the glass cases outside the Library Building entrance (fountain side). The Student Development Office also has bus schedules, rideshare forms, and health and dental insurance information available.

Other services include
Access to student clubs and organizations for planning and implementing campus events and fundraisers, posting flyers and posters, starting a new club, and access to faculty and staff initiated campus and cultural events that include student involvement is facilitated by the Student Development Office. The Student Development Office also coordinates graduation.

Clubs and Organizations
Campus clubs and organizations offer diversified social and educational opportunities. Each club must have a faculty advisor, an Inter-Club Council representative and be approved by the Student Development Office.

The Inter-Club Council works to ensure the quality of campus social, cultural and educational life through its membership comprised of student representatives from the variety of campus clubs and organizations. Chaired by the ICC President, the ICC serves as a liaison to ASG for student clubs and organizations.

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.

ASG Bike Locker Rental
ASG provides bike lockers for a rental fee. Each semester requires a rental renewal. Visit the Student Development Office to apply.

STUDENT SUPPORT CENTER

The Student Support Center, located in the Library (Room L-106) offers many programs and services. Students may stop by or call 691-7465 to make appointments for any of the following programs:

CalWORKs
CalWORKs supports students who are currently receiving cash aid from their county of residence. We have many services to offer qualified students:
- Job Placement Referrals
- Transportation
- Case Management Referrals
- Book Service
- Study Groups/Tutoring
- Child Care services on and off campus
- Support Groups
- Workshops

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); meal program; supply voucher; 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 AFDC/TANF/CALWORKs
- Be a single head of household
- Be a parent of at least one child age 13 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, call (916) 691-7365.

Department of Human Assistance (DHA):
Staff from DHA provide information and support for CalWORKs/TANF students.

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 Cosumnes River College:
- Application Fee Waivers (CSU, UC)
- Book Service Program
- Career Assessment
- Case Management Referrals
- Cooperative Agencies Resources for Education (CARE) Program
- Counseling
- EOPS Orientation
- Field Trips to 4-Year Colleges and Universities
- Priority Registration
- Progress Reports
- Recruitment
- Transfer Information
- Workshops

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 or more 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)
- Have less 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 the Student Support Center, located in the Library, Room L106. Call (916) 691-7365 for information. Applications may be picked up in the EOP&S Office.
On-Campus Student Employment
Students are limited to a maximum of 26 hours per week. Students may be employed as part of their financial aid package and should consult the Financial Aid Office at (916) 691-7325.

Scholarships
Online application at https://scholarship.losrios.edu.

TRANSCRIPTS TO OTHER COLLEGES
The Admissions and Records Office will send the first two official copies of a student's college record to any college or university without charge. Additional copies may be obtained for a small fee. Same day official transcripts may be obtained for a higher fee. Check with the Admissions and Records Office for current fees. 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. Unofficial transcripts can be printed using eServices (online).

TRANSFER AND CAREER CENTER
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 Transfer Center offers online application assistance, catalogs and other resource materials.

Career Services
• Career Exploration and Assessments
  The Career Center provides resources, tools and methods to help students identify skills, interests and values that assist in the career planning process.

• Career Research
  Take the opportunity to research and collect information pertaining to what you learned during the Career Exploration process. Linking your interests, skills and values to the world of work is essential.

• Job Search Preparation
  Learn how to organize your job search process and obtain knowledge, information and assistance on how to create job search materials including resumes and cover letters. Develop skills for interviewing and attend career fairs to assist in the job search process. Resume critiquing is available by appointment only or drop-in.

• Job Announcements
  “Job Connection,” an online listing of current job openings, is available to CRC students. Internet addresses, telephone job lines and job seeking publications are also available for job searches.

• Workshops
  The Career Center offers various workshops on career planning, resume writing, job search strategies and other skills building topics each semester. Please review the Career Services Workshop Series Calendar Available in the Career Center.

For more information, contact (916) 691-7456.

Transfer Center
L-217
www.crc.losrios.edu/Transfer

The Transfer Center provides a wide range of services for students planning on transferring to a 4-year college or university. Services provided include: Access to reference books and college catalogs; research assistance in determining potential transfer schools; eligibility information and assistance with a Transfer Admissions Guarantee to either UC Davis, UC Irvine, UC Merced, UC Riverside, UC Santa Barbara, or UC Santa Cruz, and University of the Pacific; weekly visits from university representatives; present the annual Transfer Day that occurs every October; conduct workshops on the application process and writing a personal statement; and sponsor the Spring College Tour to 4-year universities.

Note to Transfer Students:
If you are interested in transferring to a four-year college or university to pursue a Bachelor’s Degree, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an Associate’s Degree in a major may be different from the requirements needed for the Bachelor’s Degree.

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 below:

• Accounting Laboratory (916) 691-7449
  Provides tutoring for accounting students.

• Business English Help Line (916) 691-7444
  Provides telephone assistance for short English questions.

• Computer Information Science Lab (916) 691-7297
  Provides computer access to students in a open lab atmosphere and provides some individual tutoring.

• Digital Media Lab (916) 691-7170
  Provides individualized and small group tutoring for students enrolled in Radio, Television and Film classes.

• Disability Support Programs & Services (DSP&S) (916) 691-7275
  Provides tutoring assistance to students with disabilities who cannot be adequately accommodated at other tutorial centers.

• Language Lab (916) 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.

• Math Center (916) 691-7459
  Provides math tutoring on a drop-in basis, computer assisted instruction, subject specific workshops and group tutoring. (see page 15)
• **MESA**  
  Provides tutoring in Science, Mathematics, and Engineering on a drop-in or appointment basis. Preference is given to students enrolled in the MESA program. (see page 15)

• **Reading/Writing Center**  
  Provides personalized assistance in reading and writing assignments. To utilize the resources of the RWC, students must enroll in either ENGLB 70, 72, 73, or 74 for a focus on writing assistance, or ENGLB 75, 76, 77, or 78 for a focus on reading assistance.

• **Tutoring Center**  
  Provides individualized and small group tutoring for many courses across the disciplines with a focus on helping students develop effective study strategies. Depending upon availability of tutors, students may make appointments or see the tutor on a drop-in basis. Please call the Center for the tutoring schedule.

**VETERANS ASSISTANCE**

The CRC Veterans Services Office, located in the Admissions and Records Office (College Center), was established to help process Veterans Administration (VA) Educational Benefit paperwork and to coordinate with other campus services. The student veteran, children, spouse or surviving spouse of a veteran using the VA Educational Benefits with a variety of services should contact the VA Office.

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
- Satisfactorily complete the courses for which benefits are allocated and attend classes regularly.

For more information, veterans or dependents should contact the Veterans Services Office in the Admissions and Records Office or call (916) 691-7422.

**VETERANS RESOURCE CENTER**

The Veterans Resource Center (VRC) works in partnership with CRC Veterans Services Office and the Counseling Department, taking a comprehensive approach to providing students all the resources they need for the transition to civilian life and college. The VRC’s mission is to honor the service of veterans by helping them discover their educational goals and to foster a “veteran-friendly” environment at CRC. Services offered by the VRC include:

- Referrals for campus and community resources
- Computer access with internet connection and printing
- Access to copy and fax machine
- Assistance with completing the CRC enrollment process
- Warm and welcoming environment to fellowship with other student veterans.

The VRC is located in the College Center. For more information call (916) 691-7455.
Cosumnes River College’s Financial Aid Office, located in L-107, provides a wide range of financial assistance to students in the form of grants and loans. All awards are contingent upon availability of funds and academic performance.

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. The FAFSA is available on the Internet for those students who wish to apply for financial aid electronically.

- The website address is: [www.fafsa.ed.gov](http://www.fafsa.ed.gov)
- The school code for Cosumnes River College is: 007536

Cosumnes River College participates in the following programs:

**GRANTS**

**BOGW** (Board of Governors Enrollment Fee Waiver)
- BOGW is for California residents and AB 540 students 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 or complete online application at [www.losrios.edu/lrc/bog_steps.php](http://www.losrios.edu/lrc/bog_steps.php). 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.
  - **Special Eligibility**: Eligible dependents of veterans and recipients (or a child of a recipient) of the Congressional Medal of Honor must submit certification from the local county Veterans Services Office, California Department of Veterans Affairs or the National Guard Adjutant General. Dependent of a victim of the September 11, 2001 terrorist attack must submit documentation from the California Victim Compensation and Government Claims Board, (916) 322-4426. Eligible dependents of deceased law enforcement/fire suppression personnel killed in the line of duty must submits documentation from the public agency that employed the decedent.
  - **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, starting with the summer session.

**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 received by the California Student Aid Commission for consideration.

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 a full-time semester of college, or have completed 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 U.S. or foreign 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.

A Student Aid Report (SAR) will be mailed directly to the student and duplicate information is 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.

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.

LOANS
FEDERAL DIRECT LOAN PROGRAM (Subsidized)
To apply for a Federal Direct Loan, Institutional policy requires that a student must:

• Complete the FAFSA
• Complete Loan Entrance Counseling
• Complete a loan request online through “My CRC Aid”
• Maintain at least halftime enrollment status
• Maintain Satisfactory Academic Progress

Instructions to apply for the Federal Direct Loan Program are available in the Financial Aid Office or the CRC-Financial Aid webpage.

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

REQUIREMENTS FOR FEDERAL/STATE FINANCIAL AID

Ability to Benefit: Applies to students who are admitted to college but do not have a high school diploma or the equivalent. To receive Federal student aid, a student must pass a standardized placement test which measures the student’s ability to complete the course of study.

Eligibility for financial assistance is determined by:

• 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.

• For Federal aid, be a U.S. citizen, a permanent resident, or status as a resident alien with the appropriate visa. For CA state aid, be a California resident or AB540 student.

• 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 Academic Progress Policy:
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 or the CRC-Financial Aid website at: www.crc.losrios.edu/Student_Services/Financial_Aid/Satisfactory_Progress.htm

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

• Default on Federal Student loans.

• Owing a refund or repayment on PELL or FSEOG.

• Failure to meet the satisfactory progress standard as adopted by Cosumnes River College for financial aid recipients. (Specific details are available in the Financial Aid Office or CRC-Financial Aid webpage.)

• Completion of a Certificate Program, AA or AS Degree, or 72 or more attempted units (whichever comes first) unless a Financial Aid Appeal 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.

Student may file a Financial Aid Appeal to reinstate financial aid if there are extenuating circumstances that caused the dismissal. A student may be placed on financial aid probation for one semester if the Financial Aid Appeal is approved. If the student fails to make satisfactory academic progress during the probationary semester, the student will no longer be eligible for aid within the academic year.

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 and national scholarships available to students. Scholarship information is available at the CRC website.
A. Satisfactory completion of 60 units of collegiate work: Must earn an overall ‘C’ (2.0 grade point average) in a curriculum that LRCCD accepts toward the degree & meet Graduation Competency Requirements (see Table 1 below). At least 12 units must be earned at Cosumnes River College.

B. Major: Complete one of the degree programs listed in this catalog with a minimum of a ‘C’ grade in each course for the CRC major.

C. Demonstrate Graduation Competencies, as listed in Table 1 below.

D. Complete General Education (GE) requirements listed in Table 2 below.

E. Complete Ethnic/Multicultural Studies as listed in Table 3 below. Courses approved for General Education may also be used to satisfy this requirement. See courses marked with a "#" in Table 2.

**TABLE 1: GRADUATION COMPETENCY REQUIREMENTS**

Demonstrate college-level competence in reading, in written expression and in mathematics by completing the following:

1. **Reading Competency** – a. Completion with a grade of “C” or better in ENGWR 200, 310 or 312 or an equivalent college reading course at a regionally accredited college. OR Obtain a satisfactory score on a college level reading examination administered in the Los Rios District; OR b. Complete either CSU-GE Breadth or IGETC; OR c. Students who possess an AA/AS degree or higher shall be deemed competent in reading.

2. **Written Expression Competency** – Completion with a grade of “C” or better in ENGWR 300, 301, 302, 310, 401, 402, 411, 412.

3. **Mathematics Competency** – a. Completion with a grade of “C” or better in MATH 110, 120, 125, 144, OR designated higher level mathematics/statistics course, OR PSYC 300, OR college math course at a regionally accredited college. OR b. Obtain a satisfactory score on a mathematics competency examination used district-wide for graduation.

Note: Effective beginning summer 2004, students who possess a BA/BS or higher degree from a regionally accredited college or university in the United States are deemed to have met the General Education and Graduation Competency Requirements for an AA/AS degree.

**TABLE 2: GENERAL EDUCATION REQUIREMENTS FOR AA/AS DEGREES**

I: Humanities – One course from the following (3 units minimum)

ARCH 310, 332; ART 300, 301, 304, 320, 323, 324, 330, 338, 361, 362, 364, 370, 372, 394, 430; ARTH 300, 303, 307, 309, 311, 312, 324#, 325#, 328#, 332#, 333; ARTNM 324; ARTPH 301, 342; ENGCW 480; ENGLT 303, 310, 311, 320, 330, 336#, 340#, 341, 343#, 345#, 360#, 370, 402; ENGWR 301; FMS 300, 305, 310, 320, 488, 489; GEOG 481; HIST 364*, 365*; HONOR 350, 352, 360, 382; HUM 300, 301, 310, 320, 324#, 331#, 332#, 484, 486; MUFHL 300, 308, 310, 311, 315, 330#; MUP 357, 360; MUSM 334, 370; PHIL 304#, 310, 330, 331, 338, 350, 352#, 356; PHOTO 301, 302, 420; RTVF 305; SILA 305, 306, 315, 316; SPAN 101, 102, 401, 402, 411, 412, 413, 415, 425, 426, 427; TA 300, 302, 303, 306#, 322, 323, 350, 401, 407; VIET 401, 402, 411, 412

II: Languages and Rationality – To include at least one course from ‘a.’ and one course from ‘b.’ (total of 6 units minimum)

**English Composition (3 units minimum)**

BUS 310; ENGED 305; ENGW 300, 480; ESLW 340; HONOR 375

**Communication and Analytical Thinking (3 units minimum)**

ACCT 101, 301; CISC 310*; CISP 350, 360, 370, 371, 400; COMM 301, 311, 315, 331, 361, 363; ENGCW 400, 410, 420, 430; ENGRD 310; ENGWR 302; JOUR 300; MATH 110, 120, 125, 144, 300, 310, 335, 341, 343, 344, 350, 351, 370, 400, 401, 402, 410, 420; MGMT 360; PHIL 300, 320, 325, 328; PSYC 330, 335; RTVF 306; SOC 305*; STAT 300

III: Living Skills – To include at least one course from ‘a.’ and one course from ‘b.’ (total of 3 units minimum)

**English Composition (3 units minimum)**

ADAPT; DANCE; FITNS; PACT; SPORT; TMACT

**One course (minimum) from Life Development Skills (2 units minimum)**

BUSTEC 302, 306; CISC 302, 310; COMM 321; ECE 312, 314, 322, 350, 415, 430#; ENGED 320; FCS 322, 324; HCD 110, 112, 122, 132, 310, 340, 346; HEED 300, 350; HSER 302; INDI 313; JOUR 330; KINES 300, 301, 330; LIBR 318, 325; MATH 315; NUTRI 300, 322; PSYC 340*, 353*, 356, 360, 371; SGVT 300, 315; SOC 310; Work Experience Courses: Any courses numbered 198, 298, or 498

Note: The 3-unit requirement for this category, Living Skills can also be fulfilled by Military Service Credit (Honorable discharge) with a minimum of one (1) year active duty service. Please submit a copy of form DD214 to the Admissions Office as verification.

- Categories IV, V, and VI continued on next page -

* Courses with an asterisk (*) are listed in more than one category but may be used to satisfy a requirement in ONLY ONE GENERAL EDUCATION CATEGORY (see Categories I. through VI).
** Students with medical excuses on file may enroll in Adapted PE (ADAPT), or be exempt from this requirement; students receiving this exemption for any reason must complete a minimum of three units under Category III.b. listed above.
# Courses with the "#" can be used to satisfy General Education requirements as well as the Ethnic/Multicultural Studies requirement (Category VI)
TABLE 2: GENERAL EDUCATION REQUIREMENTS FOR AA/AS DEGREES

IV: Natural Sciences – To include at least one course from the following (3 units minimum)
ANSC 300, 301; ANTH 300, 303*, 374*; ASTR 300; BIOL 100, 102, 300, 307, 310, 342, 350, 351, 352, 366, 400, 410, 420, 430, 440, 462, 470, 480, 481; CHEM 305, 306, 309, 321, 400; GEOG 300, 305, 306, 331, 482; GEOL 300, 305, 310, 330; HONOR 380, 383, 384; HORT 300, 302; PHYS 310, 350, 370, 411; PLTS 300, 310; PSYC 312

Note: BIOL 480, 481; GEOG 482; HONOR 380, 383, 384 — must complete a total of 3 units.

V: Social and Behavioral Sciences – To include at least one course from ‘a.’ and one course from ‘b.’ (6 units minimum)
a. One course from American Institutions (3 units minimum)
HIST 312, 313, 314, 320, 321, 331, 371; POLS 301

b. One course from Other Social and Behavioral Sciences (3 units minimum)
AGB 321; ANTH 303*, 310#, 316#, 323, 324#, 331#, 332#, 334#, 341, 374*; BUS 320, 330#, 345; COMM 325#, 341, 480; ECON 100, 302, 304, 306, 320; GEOG 302, 310#, 320#, 322#; HIST 301, 302, 307, 308#, 344#, 360, 364*, 365*, 370, 373, 380; HONOR 340, 370; JOUR 310, 320#; PHIL 360; POLS 302, 304, 310, 312, 313, 314, 315, 317, 320; PSYC 300, 320, 340*, 353*, 368#, PSYC 371*; RTVF 300; SILA 332; SOC 300, 301, 305*, 321#, 341; SOCSC 300#, 320#, 325#, 330#, 360, 480

TABLE 3: ETHNIC/MULTICULTURAL STUDIES

VI: Ethnic/Multicultural Studies – To include one course from the following (3 units minimum)
ANTH 310, 316, 324, 331, 332, 334; ARTH 324, 325, 328, 332; BUS 330; CAM 302; COMM 325; ECE 430; ENGLT 336, 340, 343, 345, 360; GEOG 310, 320, 322; HIST 308, 344; HUM 324, 331, 332; JOUR 320; MUFHL 330; NUTRI 310; PHIL 304, 362; PSYC 368; SOC 321; SOCSC 300, 320, 325, 330; TA 306

* Courses with an asterisk (*) are listed in more than one category but may be used to satisfy a requirement in ONLY ONE GENERAL EDUCATION CATEGORY (see Categories I. through V).
** Students with medical excuses on file may enroll in Adapted PE (ADAPT), or be exempt from this requirement; students receiving this exemption for any reason must complete a minimum of three units under Category III.b. listed above.
# Courses with the "#" can be used to satisfy General Education requirements as well as the Ethnic/Multicultural Studies requirement (Category VI)

NOTE: Courses listed in more than one GE area can be used to fulfill only one area, with the exception of courses listed in GE areas AND Table 3: Ethnic/Multicultural Studies.

The final status of some courses recommended for approval for AA/AS-GE was unavailable at the time of publication of this document. Please contact or visit the CRC Counseling Center for updated information.
General Education Student Learning Outcomes

AREA 1: GENERAL EDUCATION
Upon completion of the general education curriculum at Cosumnes River College the student will have achieved proficiency in all of the following general skills.

Critical Thinking:
   a. Students will identify important questions and points, distinguish interpretations and opinions from more factual information, and construct an accurate interpretation of the viewpoints and reasoning of a written or spoken text.
   b. Students will present information in an organized manner.
   c. Students will evaluate information or data for quality, validity and bias to determine if it is objective and reliable.

Information Acquisition and Analysis:
   a. Students will access, synthesize and evaluate information using a variety of print and electronic sources including computer networks.
   b. Students will utilize technological resources in order to explore and express information.
   c. Students will determine the extent of information needed, evaluate the information and its sources critically, and ethically and legally apply gathered information to personal and community issues.

Ethical Capacities:
   a. Students will apply ethical reasoning skills within the various GE areas and work toward a personal resolution of ethical issues.
   b. Students will show an appreciation of ethical principles as applied to personal and civic choices.
   c. Students will realize and apply the responsibility to use knowledge wisely.
   d. Students will assume civic, political, and social responsibilities locally, nationally and internationally.

AREA 2: DISCIPLINE SPECIFIC SKILLS
(Graduation Requirements)

Humanities and Arts (I)
Upon completion of this GE requirement the student will have satisfied all of the following:
   a. Students will demonstrate an appreciation of artistic endeavors, cultural expressions, ideas and/or institutions through non-empirical, analytic, interpretive studies and critical thinking projects.
   b. Students will articulate the development of and relationships between different civilizations, cultural traditions, ideas and/or institutions through the application of non-empirical, analytical reasoning.
   c. Students will demonstrate the ability to critically evaluate analyses and interpretations (including significant historical or contemporary analyses and interpretations) of arts, ideas, skills (including language), and/or institutions.
   d. Students will clearly express their own analyses and interpretations of arts, ideas, skills (including language), and/or institutions, and will properly use the vocabulary appropriate to the field.

English Composition (Iia)
Upon completion of this GE requirement the student will have satisfied all of the following:
   a. Students will express their ideas clearly in well-organized written messages.
   b. Students will use correct and appropriate conventions of mechanics, usage, and style in written communication.
   c. Students will comprehend main ideas and reasonably interpret written information.
   d. Students will properly document sources of information.

Communication (Iib)
Upon completion of this GE requirement with a communications course (COMM 301, 331, 361, MGMT), the student will have satisfied all of the following:
   a. Students will conduct audience analysis to design an appropriate purpose, topic, style and speech structure within formal presentations.
   b. Students will construct an effective presentation to a specific topic by collecting relevant information and employing credible evidence with proper documentation.
   c. Students will express appropriate nonverbal messages to audiences that adhere to proper conventions of delivery (e.g., eye contact, movement, gestures, vocal qualities, effective presentational aids, etc.).
   d. Students will listen effectively to comprehend spoken messages, analyze information critically and consider multiple perspectives.
   e. Students will determine and use appropriate communications technologies to convey information.

Analytical Thinking (Iib)
Upon completion of this GE requirement with an analytical thinking course (ACCT, CIS, CISR COMM 311, 315, 363, ENGW, ENGCW, HIST, JOUR, PHIL, PSYC 335, SOC), the student will have satisfied at least two of the following (depending on the course taken):
   a. Students will organize information utilizing logical structure of inductive and/or deductive forms.
   b. Students will construct an accurate and/or logical interpretation of reasoning while applying a framework of analytic concepts.
   c. Students will analyze reasoning processes to evaluate issues, value judgments or conclusions that determine the quality, validity, and/or reliability of information.
   d. Students will recognize and identify inference, bias, narrowness, and/or contradictions within points of information.

Quantitative Reasoning (Iib)
Upon completion of this GE requirement with a quantitative reasoning course (MATH, STAT, PSYC 330) the student will have satisfied all of the following:
   a. Students will effectively organize, present, interpret and summarize quantitative information using symbolic, numerical and graphical methods.
   b. Students will solve problems by evaluating the available information and classifying the type of problem, choosing an appropriate technique, applying the technique accurately, and verifying whether or not the result is reasonable.
   c. Students will use appropriate quantitative skills including arithmetic and basic algebra to solve problems applicable to occupational and personal activities.
Living Skills (III)
Upon completion of this GE requirement the student will have satisfied at least two of the following (depending on the courses taken):

a. Students will demonstrate concepts of physical and emotional wellness to make wise lifestyle choices and will develop the skills and competencies to understand themselves as whole persons (integral to their environment).
b. Students will establish daily habits for caring for their bodies including appropriate physical activities in order to maintain or improve physical and mental health and prevent illnesses.
c. Students will identify aspects of social, physical, and/or emotional well-being for the community while considering present and future conditions in society.
d. Students will recognize the need for healthy personal relationship and lifestyle with members of their family and community.
e. Students will be able to understand and apply the scientific method to health, fitness and nutrition information to determine the validity of that information and in so doing, understand the relationship between scientific research and established knowledge.
f. Students will develop skills and competencies for effective and competitive workforce performance.
g. Students will demonstrate information competency through the ability to locate, evaluate, and effectively use needed information ethically and legally, while understanding the economic, legal, and social issues surrounding the use of information.

Natural Sciences (IV)
Upon completion of this GE requirement the student will have satisfied all of the following:

a. Students will explain the core perspectives of the scientific method and apply it to at least one scientific discipline.
b. Students will solve introductory problems of a conceptual and/or numerical nature of at least one scientific discipline.
c. Students will accurately apply the basic vocabulary and concepts of at least one scientific discipline verbally and in writing.
d. Students will recognize the use and misuse of scientific concepts in society including politics and the media.

American Institutions (Va)
Upon completion of this GE requirement the student will have satisfied all of the following:

a. Students will describe both verbally and in writing the historical development of American political, social and cultural institutions including the key individuals and/or movements and their motivations.
b. Students will demonstrate an understanding of the basic national, state and/or local political processes including the US Constitution and the rights and obligations of citizenship through responsible engagement in civic duties.
c. Students will describe both verbally and in writing the role of diverse ethnic, religious and social groups in American political, economic and social development.

Social and Behavioral Sciences (Vb)
Upon completion of this GE requirement the student will have satisfied all of the following:

a. Students will accurately apply the basic vocabulary and concepts of at least one social or behavioral science discipline verbally and in writing.
b. Students will examine the possible causes and suggest solutions to introductory problems of a conceptual nature using the methods of at least one social or behavioral scientific discipline.
c. Students will recognize the use and misuse of social and behavioral science concepts in society including politics and the media.

Ethnic/Multicultural Studies (VI)
Upon completion of this GE requirement the student will have satisfied all of the following:

a. Students will become effective citizens of a diverse and multicultural society, will demonstrate thoughtful consideration of divergent points of view, and will develop a foundation for cultural democracy based on a respect for cultural diversity.
b. Students will critically analyze cultural issues to recognize tendencies towards bias and stereotyping, understand the implications of bias on societal and individual health, and will stand up for themselves or others in the face of bias.
c. Students will recognize, appreciate and understand intra-cultural diversity and the cultural practices of historically underrepresented groups in the United States as well as the contributions of non-Eurocentric cultures to world civilization or the United States.
d. Students will demonstrate verbally and in writing an understanding of the various aspects of culture beyond race and ethnicity.
e. Students will demonstrate comfortable, empathetic interaction with people from diverse backgrounds.
f. Students will construct a knowledgeable and confident self-identity, and will exhibit through their actions, speech, or writing, a foundation of cultural understanding and respect.
College Wide Student Learning Outcomes

Overarching Goal
Students will experience a rich and inclusive learning environment that assists them in developing habits of intellectual inquiry, a significant base of knowledge and skills, and a broad pluralistic perspective of the world.

AREA 1: COLLEGE OUTCOMES RELATED TO GRADUATION COMPETENCIES
Learning expectation related to graduation competencies:
Students will experience an academically rigorous learning environment that challenges them to develop the critical verbal, written, and quantitative skills needed to analyze complex issues.

College Outcomes Area 1: As the result of a variety of learning experiences, students will be able to:
- a. Use quantitative reasoning (e.g. mathematics) to solve problems.
- b. Express ideas and facts clearly and completely in a variety of written formats.
- c. Comprehend and analyze written material and evaluate arguments from reading material.
- d. Speak and listen critically and recognize the value of a wide range of communication styles.
- e. Use the English language proficiently.

NOTE: These outcomes are further developed and expanded by the CRC GE Program Outcomes

AREA 2: COLLEGE OUTCOMES RELATED TO GENERAL EDUCATION
Learning expectations related to general education:
Students completing any of the GE patterns will develop an understanding of the basic concepts and major modes of inquiry used in a variety of disciplines.

College Outcomes Area 2: As the result of a variety of learning experiences, students will be able to:
- a. Articulate an awareness of a variety of disciplinary perspectives and the relevance of these perspectives to one's own life.
- b. Correctly utilize the basic vocabulary of several disciplines.
- c. Utilize, at a basic level, the tools of inquiry and information acquisition of several disciplines.
- d. Demonstrate the intellectual skills, creative capabilities, values, and attitudes that will make them effective learners and citizens.
- e. Demonstrate awareness of the connections between disciplines.

NOTE: These outcomes are further developed and expanded by the CRC GE Program Outcomes

AREA 3: COLLEGE OUTCOMES RELATED TO PROGRAM COMPLETION
Learning expectation related to program completion:
Students completing a degree, disciplinary transfer program, or certificate will develop a depth of understanding, including critical cognitive, psychomotor and affective skills, in at least one discipline.

College Outcomes Area 3: As the result of a variety of learning experiences, students will be able to:
- a. Use the modes of analysis and critical thinking in the major discipline of study as applied to significant problems.
- b. Communicate a complex understanding of content matter of the major discipline of study.
- c. Demonstrate competence in the skills essential to mastery of the major discipline of study.
- d. Use information resources to gather discipline-specific information.
- e. Explain the importance of the major discipline of study in the broader picture of society.

* “major discipline of study” = the discipline in which the student completes program

AREA 4: COLLEGE OUTCOMES RELATED TO STUDENT DEVELOPMENT AS SELF-RELIANT LEARNERS
Learning expectation related to student development as self-reliant learners:
Students will make progress toward becoming engaged and self-reliant learners demonstrating habits of intellectual inquiry and striving toward their maximum potential.

College Outcomes Area 4: As the result of a variety of learning experiences, students will be able to:
- a. Actively engage in intellectual inquiry beyond that required in order to pass classes.
- b. Identify personal goals and pursue those goals effectively.
- c. Confidently seek out the information and resources needed to develop academically and personally.
- d. Incorporate what is learned at school into daily life and use this information to make positive personal, educational and career choices.
- e. Utilize skills from the “academic tool kit” including time management, study skills, etc.
- f. Be actively involved in campus life and express a sense of engagement with the campus culture.

AREA 5: COLLEGE OUTCOMES RELATED TO SOCIETY, ETHICS, AND PLURALISM
Learning expectation related to society, ethics and pluralism:
Students will become more prepared to contribute to a diverse democratic society with a pluralistic perspective of the world.

College Outcomes Area 5: As the result of a variety of learning experiences, students will be able to:
- a. Participate in the larger community beyond campus in a positive manner demonstrating an understanding of personal responsibility in the larger context.
- b. Undertake thoughtful consideration of divergent points of view and utilize multiple perspectives in considering information.
- c. Develop a foundation for cultural pluralism, a rejection of previous personal prejudices, and knowledge of and comfort with others unlike themselves.
- d. Recognize the ethical dimensions of decisions and actions as well as demonstrate the ability to engage in the ethical reasoning necessary to exercise responsibility as an ethical individual, professional, local, and global citizen.
- e. Demonstrate civility, empathy, interpersonal competence, social responsibility, and peaceful conflict resolution.
Alternative Credit & Study Options

In addition to regularly scheduled credit classes, students may receive college credit for participation in the following alternative credit and study options:

**CREDIT BY EXAMINATION**

Credit by Examination is a process by which students may earn credit in recognition of knowledge and skills gained from previous experience or training when such knowledge and skills are deemed to be substantially similar to the student learning outcomes of the course for which credit is being sought. A student, who meets the following requirements, may receive credit for some courses by passing an exam:

- Completed 12 units at Cosumnes River College
- Have a cumulative GPA of 3.00 or better at CRC

Under special circumstances these requirements may be waived by petition to the Dean of Student Services and Enrollment Management.

A maximum of 15 credit units of catalog courses may be earned through Credit by Examination. Credit by Examination may not be applicable to all courses. Eligibility for Credit by Examination is NOT permissible under the following situations:

- The student has completed or enrolled in a more advanced course, which follows this course in sequence.
- The course (or its equivalent) appears on the student’s transcript with a grade other than a W.
- The exam would duplicate coursework for which credit was granted previously.
- The student does not meet the pre-requisite or co-requisite for the course.

Under special circumstances these restrictions may be waived by petition to the Vice President of Student Services.

Please note that some four-year colleges and universities do NOT accept units granted through credit by examination. Students are advised to meet with a counselor for more information.

Please follow these steps to participate:

1. Find a professor who is willing to administer the exam. The examining instructor determines the scope and form of the exam.
2. Complete the appropriate paperwork at the Admissions and Records Office. Staff will verify your eligibility.
3. Have the examining professor sign the petition and schedule the examination.
4. Have the appropriate area dean sign the petition.
5. Return the completed petition to the Admissions and Records Office for enrollment in a test section and provide payment of appropriate enrollment fees.
6. Take the exam as scheduled. (The examining professor will submit a grade of “Pass” or “No Pass” to the Admissions and Records Office. See “Pass-No Pass” Grading for further information.)

Please note that all Cosumnes River College policies are in effect with respect to Credit by Examination, except as indicated above.

**CREDITS EARNED BY EXTERNAL EXAMINATIONS**

Students may earn college credit through any of the following: College Level Examination Program (CLEP), Advanced Placement (AP) Subject Tests (CEEB), or International Baccalaureate (IB) High Level (HL) examinations. See specifics below:

**COLLEGE LEVEL EXAMINATION PROGRAM (CLEP) - GENERAL EXAMINATIONS**

Students enrolled at Cosumnes River College may be awarded units of credit for each CLEP General Examination passed with a minimum score as listed on the CLEP chart. Submit scores from the College Level Examination Program (CLEP) to the Admissions and Records Office for evaluation of college credit. Refer to the CLEP examination chart for specific information. Qualifying CLEP scores do NOT earn equivalent course credit, but satisfy General Education areas required for an AA or AS degree at CRC. Credits/units earned are posted to the transcript as “Pass” (“P”) – letter grades are not awarded.

Students should be aware that other colleges and universities 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). The University of California (UC) does NOT currently accept CLEP credits.

Actual credit awarded may be affected by college coursework previously taken.

**ADVANCED PLACEMENT (AP) TESTS (CEEB)**

Students enrolling at Cosumnes River College may be awarded units of credit for each Advanced Placement examination passed with scores of 3, 4, or 5: Refer to the AP chart for information on the specific course credit awarded and GE areas covered. Submit Advanced Placement test scores to the Admissions and Records Office for evaluation of college credit. Credits/units earned are posted to the transcript as “Pass” (“P”) – letter grades are not awarded. Credit may not be earned for courses which duplicate credit already awarded for Advanced Placement examinations.

**INTERNATIONAL BACCALAUREATE (IB)**

Students enrolling at Cosumnes River College may be awarded units of credit for each International Baccalaureate (IB) High Level (HL) examination completed with a score of 5, 6, or 7: Refer to the IB chart for information. Qualifying IB scores do NOT earn equivalent course credit, but satisfy General Education areas required for an AA or AS degree at CRC, for CSU-GE Breadth, and IGETC. Credits/units earned are posted to the transcript as “Pass” (“P”) – letter grades are not awarded.

Actual credit awarded may be affected by college coursework previously taken.

If a student is interested in transferring to a university to pursue a bachelor's degree, it is critical that they meet with a counselor since the admission and transfer requirements are different at each institution. For example, some universities may not accept credit/no credit grading as meeting the requirements for a given major.
## ADVANCED PLACEMENT (AP) TEST SCORES AND GENERAL EDUCATION (GE) AREA CREDIT AT COSUMNES RIVER COLLEGE

The following AP Examinations have been approved for CRC General Education area credit. Where CRC grants credit also for specific CRC courses, those courses are listed (in bold), along with the minimum AP score required. If an examination is listed in more than one area, only one area will be satisfied by the examination (exceptions are listed in the table).

GE and course credits earned at CRC are for fulfillment of CRC Associates Degree Graduation Requirements. If you plan to transfer to a CSU or UC campus, make sure you see a Counselor for more information about how your AP credits are used after transfer.

CRC GE credits are granted per CRC policy. CSU-GE and IGETC credits are granted per CSU and UC policies. All unit values are semester units.

<table>
<thead>
<tr>
<th>AP Examination</th>
<th>AP Score</th>
<th>CRC GE Area</th>
<th>CSU GE Area</th>
<th>IGETC Area (UC/CSU)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>COURSES AND/OR GE AREA</td>
<td>UNITS</td>
<td>GE AREA</td>
</tr>
<tr>
<td>Art History</td>
<td>3,4,5</td>
<td>ARTH 300 Humanities (I)</td>
<td>3</td>
<td>Area C1 or C2</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>BIOL 310 Natural Science (IV)</td>
<td>4</td>
<td>Area B2 &amp; B3 (lab)</td>
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<tr>
<td>Biology</td>
<td>4,5</td>
<td>BIOL 310 OR BIOL 400 Natural Science (IV)</td>
<td>4 5 A 3B</td>
<td>Area B2 &amp; B3 (lab)</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>3</td>
<td>MATH 341 Language and Rationality (IIb)</td>
<td>3</td>
<td>Area B4</td>
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<tr>
<td>Calculus AB</td>
<td>4</td>
<td>MATH 350 Language and Rationality (IIb)</td>
<td>4</td>
<td>Area B4</td>
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<tr>
<td>Calculus AB</td>
<td>5</td>
<td>MATH 400 Language and Rationality (IIb)</td>
<td>5</td>
<td>Area B4</td>
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<tr>
<td>Calculus BC</td>
<td>3</td>
<td>MATH 350 OR MATH 341 Language and Rationality (IIb)</td>
<td>3</td>
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</tr>
<tr>
<td>Calculus BC</td>
<td>4,5</td>
<td>MATH 350 (3 units) &amp; 351 (3 units) OR MATH 400 (5 units) &amp; 401 (5 units) Language and Rationality (IIb)</td>
<td>3 6 10</td>
<td>Area B4</td>
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<tr>
<td>Chemistry</td>
<td>3,4,5</td>
<td>Natural Science (IV)</td>
<td>4</td>
<td>Area B1 &amp; B3 (lab)</td>
</tr>
<tr>
<td>Chinese Language &amp; Culture</td>
<td>3,4,5</td>
<td>Humanities (I)</td>
<td>3</td>
<td>Area C2</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>4</td>
<td>CISP 360 No GE Credit</td>
<td>4</td>
<td>No GE Credit</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>5</td>
<td>CISP 401 No GE Credit</td>
<td>4</td>
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</tr>
<tr>
<td>Computer Science B</td>
<td>3</td>
<td>CISP 360 No GE Credit</td>
<td>4</td>
<td>No GE Credit</td>
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<tr>
<td>Computer Science B</td>
<td>4,5</td>
<td>CISP 400 &amp; 401 No GE Credit</td>
<td>8</td>
<td>No GE Credit</td>
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<td>English Language &amp; Composition</td>
<td>3,4,5</td>
<td>Language and Rationality (IIa)</td>
<td>3</td>
<td>Area A2</td>
</tr>
<tr>
<td>English Literature &amp; Composition</td>
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<td>ENGW 300 Language and Rationality (IIa)</td>
<td>3</td>
<td>Area A2 &amp; C2</td>
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<td>English Literature &amp; Composition</td>
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<td>ENGW 300 (3 units) &amp; ENGW 301 (3 units) Language and Rationality (IIa) AND Humanities (I)</td>
<td>6</td>
<td>Area A2 &amp; C2</td>
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<td>Environmental Science</td>
<td>3,4,5</td>
<td>BIOL 350 Natural Science (IV)</td>
<td>3</td>
<td>Area B2 &amp; B3 (lab) or Area B1 &amp; B3 (lab) (If taken prior to FA-09, Area B1 &amp; B3 ONLY if taken after)</td>
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<tr>
<td>European History</td>
<td>3,4,5</td>
<td>Social and Behavioral Sciences (Vb) OR Humanities (I)</td>
<td>3</td>
<td>Area C2 or D</td>
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<tr>
<td>French Language</td>
<td>3,4,5</td>
<td>Humanities (I)</td>
<td>3</td>
<td>Area C2</td>
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<tr>
<td>French Literature</td>
<td>3,4,5</td>
<td>Humanities (I)</td>
<td>3</td>
<td>Area C2 (Only if taken prior to FA-09)</td>
</tr>
<tr>
<td>AP Examination</td>
<td>AP Score</td>
<td>CRC GE Area</td>
<td>CSU GE Area</td>
<td>IGETC Area (UC/CSU)</td>
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<td></td>
<td></td>
<td>COURSES AND/OR GE AREA</td>
<td>UNITS</td>
<td>GE AREA</td>
</tr>
<tr>
<td>German Language</td>
<td>3,4,5</td>
<td>Humanities (I)</td>
<td>3</td>
<td>Area C2</td>
</tr>
<tr>
<td>Government &amp; Politics:</td>
<td>3,4,5</td>
<td>Social and Behavioral Sciences (Vb)</td>
<td>3</td>
<td>Area D</td>
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<tr>
<td>Comparative</td>
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<td></td>
<td></td>
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<tr>
<td>Government &amp; Politics:</td>
<td>3</td>
<td>Social and Behavioral Sciences (Va)</td>
<td>6</td>
<td>Area D (and US 2&quot;)</td>
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<tr>
<td>United States</td>
<td>4,5</td>
<td>POLS 301 (3 units) Social and Behavioral Sciences (Va)</td>
<td>6</td>
<td>Area D (and US 2&quot;)</td>
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<td>Human Geography</td>
<td>3,4,5</td>
<td>GEOG 310 Social and Behavioral Sciences (Vb)</td>
<td>3</td>
<td>Area D</td>
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<tr>
<td>Italian Language &amp; Culture</td>
<td>3,4,5</td>
<td>Humanities (I)</td>
<td>3</td>
<td>Area C2</td>
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<tr>
<td>Japanese Language &amp; Culture</td>
<td>3,4,5</td>
<td>Humanities (I)</td>
<td>3</td>
<td>Area C2</td>
</tr>
<tr>
<td>Latin Literature</td>
<td>3,4,5</td>
<td>Humanities (I)</td>
<td>3</td>
<td>Area C2</td>
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<tr>
<td>Latin: Vergil</td>
<td>3,4,5</td>
<td>Humanities (I)</td>
<td>3</td>
<td>Area C2</td>
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<tr>
<td>Macroeconomics</td>
<td>3,4,5</td>
<td>ECON 302 Social and Behavioral Sciences (Vb)</td>
<td>3</td>
<td>Area D</td>
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<td>Microeconomics</td>
<td>3,4,5</td>
<td>ECON 304 Social and Behavioral Sciences (Vb)</td>
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<td>Music Theory</td>
<td>3,4,5</td>
<td>MUFHL 400 Humanities (I)</td>
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<td>Area C1 (Only if taken prior to FA-09)</td>
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<td>Physics B</td>
<td>3,4</td>
<td>PHYS 310 Natural Science (IV)</td>
<td>4</td>
<td>Area B1 B3 (lab)</td>
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<tr>
<td>Physics B</td>
<td>5</td>
<td>PHYS 350 (4 units) &amp; PHYS 360 (4 units) OR PHYS 370 (5 units) &amp; PHYS 380 (5 units) Natural Science (IV)</td>
<td>8</td>
<td>Area B1 B3 (lab)</td>
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<tr>
<td>Physics C: Electricity &amp;</td>
<td>3,4,5</td>
<td>Natural Science (IV) (PHYS 421 – 4 units ONLY with AP score of 5)</td>
<td>3</td>
<td>Area B1 B3 (lab)</td>
</tr>
<tr>
<td>Magnetism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physics C: Mechanics</td>
<td>3,4</td>
<td>PHYS 310 Natural Science (IV)</td>
<td>4</td>
<td>Area B1 B3 (lab)</td>
</tr>
<tr>
<td>Physics C: Mechanics</td>
<td>5</td>
<td>PHYS 411 Natural Science (IV)</td>
<td>4</td>
<td>Area B1 B3 (lab)</td>
</tr>
<tr>
<td>Psychology</td>
<td>3,4,5</td>
<td>Social and Behavioral Sciences (Vb) (PSYC 300 – 3 units ONLY with AP score of 5)</td>
<td>3</td>
<td>Area D</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>3,4,5</td>
<td>SPAN 401 (4 units) &amp; SPAN 402 (4 units) Humanities (I)</td>
<td>8</td>
<td>Area C2</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>3,4,5</td>
<td>Humanities (I)</td>
<td>3</td>
<td>Area C2</td>
</tr>
<tr>
<td>Statistics</td>
<td>3,4,5</td>
<td>STAT 300 Language and Rationality (IIb)</td>
<td>4</td>
<td>Area B4</td>
</tr>
<tr>
<td>Studio Art: 2D Design</td>
<td>3,4,5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studio Art: 3D Design</td>
<td>3,4,5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studio Art: Drawing</td>
<td>3,4,5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States History</td>
<td>3,4,5</td>
<td>HIST 312 (5 units) &amp; HIST 313 (3 units) Social and Behavioral Sciences (Va) OR Humanities (I)</td>
<td>6</td>
<td>Area D (and US 1*)</td>
</tr>
<tr>
<td>World History</td>
<td>3,4,5</td>
<td>Social and Behavioral Sciences(Vb) OR Humanities (I)</td>
<td>3</td>
<td>Area C2 or D</td>
</tr>
</tbody>
</table>

* CSU graduation requires completion of exams or coursework that covers US History, Constitution and American Ideals. It is not possible to complete this requirement using AP exams alone. See a Counselor to determine what coursework will be needed to satisfy this requirement.
# INTERNATIONAL BACCALAUREATE (IB) EXAMINATION SCORES AND GENERAL EDUCATION (GE) CREDIT AT COSUMNES RIVER COLLEGE

**NOTE TO TRANSFER STUDENTS:** CSU-GE Breadth and IGETC are General Education patterns. These examination results may be used differently at specific 4-year colleges/universities. It is important for you to see a Counselor to discuss the use of IB examinations at the college or university to which you intend to transfer.

<table>
<thead>
<tr>
<th>IB Exam</th>
<th>CRC AA/AS Area</th>
<th>CSU GE Area</th>
<th>IGETC Area (UC/CSU)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GE AREA</td>
<td>SCORES</td>
<td>UNITS</td>
</tr>
<tr>
<td>IB Biology HL</td>
<td>Natural Science (IV)</td>
<td>5, 6, 7</td>
<td>3</td>
</tr>
<tr>
<td>IB Chemistry HL</td>
<td>Natural Science (IV)</td>
<td>5, 6, 7</td>
<td>3</td>
</tr>
<tr>
<td>IB Economics HL</td>
<td>Social and Behavioral Sciences (IVb)</td>
<td>5, 6, 7</td>
<td>3</td>
</tr>
<tr>
<td>IB Geography HL</td>
<td>Social and Behavioral Sciences (IVb)</td>
<td>5, 6, 7</td>
<td>3</td>
</tr>
<tr>
<td>IB History (any region) HL</td>
<td>Social and Behavioral Sciences (IVb) OR Humanities (I)</td>
<td>5, 6, 7</td>
<td>3</td>
</tr>
<tr>
<td>IB Language A1** (any language, except English) HL</td>
<td>N/A</td>
<td>5, 6, 7</td>
<td>N/A</td>
</tr>
<tr>
<td>IB Language A2** (any language, except English) HL</td>
<td>N/A</td>
<td>5, 6, 7</td>
<td>N/A</td>
</tr>
<tr>
<td>IB Language A1 (any language) HL</td>
<td>Humanities (I)</td>
<td>5, 6, 7</td>
<td>3</td>
</tr>
<tr>
<td>IB Language A2 (any language) HL</td>
<td>Humanities (I)</td>
<td>5, 6, 7</td>
<td>3</td>
</tr>
<tr>
<td>IB Language B** (any language) HL</td>
<td>N/A</td>
<td>5, 6, 7</td>
<td>N/A</td>
</tr>
<tr>
<td>IB Mathematics HL</td>
<td>Language and Rationality (IIb)</td>
<td>5, 6, 7</td>
<td>3</td>
</tr>
<tr>
<td>IB Physics HL</td>
<td>Natural Science (IV)</td>
<td>5, 6, 7</td>
<td>3</td>
</tr>
<tr>
<td>IB Psychology HL</td>
<td>Social and Behavioral Sciences (IVb)</td>
<td>5, 6, 7</td>
<td>3</td>
</tr>
<tr>
<td>IB Theatre HL</td>
<td>Humanities (I)</td>
<td>5, 6, 7</td>
<td>3</td>
</tr>
</tbody>
</table>

* IB exam may be used to fulfill either area, regardless of how the course is used for CRC AA/AS GE.
** The IB curriculum offers language at various levels for native and non-native speakers. Language B courses are offered at the intermediate level for non-native speakers. Language A1 and A2 are advanced courses in literature for native and non-native speakers, respectively.
1 These units are counted for eligibility for admissions to the CSU, and should not be confused with the unit values applied toward GE Certification.
### COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP) SCORES AND GENERAL EDUCATION (GE) CREDIT AT COSUMNES RIVER COLLEGE

**NOTE TO ALL STUDENTS:** CLEP scores fulfill General Education areas only; the tests do NOT fulfill graduation competencies, requirements for any major at CRC, or enrollment limitations (i.e., prerequisite requirements) for any course at CRC.

**NOTE TO TRANSFER STUDENTS:** CLEP scores are NOT accepted for transfer to the University of California. In addition, these examination results may be used differently at specific 4-year colleges/universities.

Students are strongly urged to see a Counselor to discuss the use of CLEP scores at CRC and/or at the college or university to which you intend to transfer.

<table>
<thead>
<tr>
<th>CLEP Test</th>
<th>CRC AA/AS Area</th>
<th>CSU GE Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GE AREA</td>
<td>SCORES</td>
</tr>
<tr>
<td>American Government</td>
<td>Social and Behavioral Sciences (Va)</td>
<td>50</td>
</tr>
<tr>
<td>American Literature</td>
<td>Humanities (I)</td>
<td>50</td>
</tr>
<tr>
<td>Analyzing and Interpreting Literature</td>
<td>Humanities (I)</td>
<td>50</td>
</tr>
<tr>
<td>Biology</td>
<td>Natural Science (IV)</td>
<td>50</td>
</tr>
<tr>
<td>Calculus</td>
<td>Language and Rationality (IIb)</td>
<td>50</td>
</tr>
<tr>
<td>Chemistry</td>
<td>Natural Science (IV)</td>
<td>50</td>
</tr>
<tr>
<td>College Algebra</td>
<td>Language and Rationality (IIb)</td>
<td>50</td>
</tr>
<tr>
<td>College Algebra – Trigonometry</td>
<td>Language and Rationality (IIb)</td>
<td>50</td>
</tr>
<tr>
<td>College Mathematics</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>English Composition (no essay)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>English Composition (with essay)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>English Literature</td>
<td>Humanities (I)</td>
<td>50</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>French Level I*</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>French Level II*</td>
<td>Humanities (I)</td>
<td>59</td>
</tr>
<tr>
<td>Freshman College Composition</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>German Level I</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>German Level II</td>
<td>Humanities (I)</td>
<td>60</td>
</tr>
<tr>
<td>History, US I</td>
<td>Social and Behavioral Sciences (Va)</td>
<td>50</td>
</tr>
</tbody>
</table>
## College-Level Examination Program (CLEP) Scores and General Education (GE) Credit at Cosumnes River College

<table>
<thead>
<tr>
<th>CLEP Test</th>
<th>CRC AA/AS Area</th>
<th>CSU GE Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GE AREA</td>
<td>SCORES</td>
</tr>
<tr>
<td>History, US II</td>
<td>Social and Behavioral Sciences (Va)</td>
<td>50</td>
</tr>
<tr>
<td>Human Growth and Development</td>
<td>III(b)</td>
<td>50</td>
</tr>
<tr>
<td>Humanities</td>
<td>Humanities (I)</td>
<td>50</td>
</tr>
<tr>
<td>Information Systems &amp; Computer Applications</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Introduction to Educational Psychology</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Introduction to Business Law</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Introduction to Psychology</td>
<td>Social and Behavioral Sciences (Vb)</td>
<td>50</td>
</tr>
<tr>
<td>Introduction to Sociology</td>
<td>Social and Behavioral Sciences (Vb)</td>
<td>50</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>Natural Science (IV)</td>
<td>50</td>
</tr>
<tr>
<td>Pre-Calculus</td>
<td>Language and Rationality (IIb)</td>
<td>50</td>
</tr>
<tr>
<td>Principles of Accounting</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Principles of Macroeconomics</td>
<td>Social and Behavioral Sciences (Vb)</td>
<td>50</td>
</tr>
<tr>
<td>Principles of Management</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Principles of Marketing</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
<td>Social and Behavioral Sciences (Vb)</td>
<td>50</td>
</tr>
<tr>
<td>Social Science &amp; History</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Spanish Level I*</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Spanish Level II*</td>
<td>Humanities (I)</td>
<td>63</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>Language and Rationality (IIb)</td>
<td>50</td>
</tr>
<tr>
<td>Western Civilization I</td>
<td>Humanities (I)</td>
<td>OR Social and Behavioral Sciences (Vb)</td>
</tr>
<tr>
<td>Western Civilization II</td>
<td>Social and Behavioral Sciences (Vb)</td>
<td>50</td>
</tr>
</tbody>
</table>

* For CSU only: If a student passes more than one CLEP test in the same language other than English (i.e., two exams in Spanish), only one examination may be applied to the AA/AS or the baccalaureate (BA or BS). For each test in a language other than English, a passing score of 50 is considered “Level I” and earns six (6) units of credit towards the baccalaureate (BA or BS); the higher score listed for each test is considered “Level II” and earns additional units of credit and placement in Area C2 of GE Breadth, as noted.

1 These units values are used only in determination of eligibility for admissions to the CSU, and should not be confused with the unit values applied toward GE Certification.
**CREDIT FOR MILITARY SERVICE**

Credit for military service is granted upon presentation of papers showing honorable discharge from active duty of one year or more in the United States armed forces. A veteran may receive four (4) 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 (member copy 4) separation paper MUST be submitted at the Veterans Services Office and a petition completed after the first semester of attendance. Credit granted for military service is based on *A Guide to the Evaluation of Educational Experiences in the Armed Services*, published by the 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.

**DISTANCE EDUCATION**

Cosumnes River College expands access to its educational programs through distance education. Student learning outcomes, registration, and degree applicability for these courses are the same as those for on-campus courses. There are two types of distance education:

**Online Instruction**

Learning opportunities using this medium come in two modes. In the first, all or most course instruction takes place online through the use of materials and activities posted on an internet site. The class schedule indicates how often class meets on campus. 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 email or other electronic means. Not all classes that use the internet in this way are indicated in the class schedule.

**Television Instruction**

The instructional television system brings students live, interactive classes, broadcast from the main campus over several area cable systems and online via streaming media. Students use the telephone (toll free) to report attendance, ask questions, and participate. Class sessions are also available for student review via on-demand streaming media, and students can subscribe to a podcast or video podcast. On-campus attendance is required only to take exams, with accommodations made for student schedules. Class materials may be picked up or mailed. Assignments may be faxed or mailed to instructors. Student participation is expected.

**HONORS PROGRAM & HONORS SOCIETY**

The Cosumnes River College Honors program is designed specifically for academically accomplished students, and students 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. These one to three unit courses are intended to augment and enhance a student’s knowledge and educational experience. In the broad plan of the program, some of these 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, write clearly and purposefully, and 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 conduct 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. Students who complete 15 units or more in honors-designated courses will earn special recognition as an Honors Scholar, a distinction that may entitle the student to guaranteed transfer and scholarship opportunities at select transfer colleges and universities.

Students interested in applying for membership in the Honors Program should contact the Faculty Contact person (see pg 241) or the Vice President of Instruction and Student Learning (College Center) for application materials.

**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 courses. 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 at CSU, Sacramento. The 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.

To apply for the program or for more information, contact the Unit Admissions Officer at (916) 278-7682. It is recommended that applications be submitted no later than the first semester of the sophomore year.
SPECIAL STUDIES

Experimental Offerings
An experimental offering is a course that is offered on a trial basis. Students enroll in experimental offerings through the regular registration process. Note: Transfer institutions may not accept units earned in experimental offerings.

Independent Studies
An Independent Studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses.

Students may petition to enroll in one to three units in a single department, with a maximum of six (6) units of Independent Studies allowed per semester. However, no repetition of a specific department may occur unless authorized by regulations governing course repetition. A maximum of nine (9) units of Independent Studies is allowed toward graduation requirements. Anyone may apply for permission to pursue an Independent Studies project that is 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 eighth week of classes.

(See Academic Calendar - page 1)

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 Independent Studies 295 or 495 in the Admissions and Records Office

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

LOS RIOS STUDY ABROAD PROGRAM

What nations don’t know can hurt them.
The stakes involved in study abroad are that simple, that straightforward, and that important.
For their own future and that of the nation, college graduates today must be internationally competent.

COMMISSION ON THE
Abraham Lincoln Study Abroad Fellowship Program
NOVEMBER 2005

Your assignment is to conduct a comparison between food shopping patterns of Italians and Americans for your Cultural Anthropology class, or observe two works of art in the Louvre for your Art History class, or visit the prison on Robben Island where Nelson Mandela served 27 years as a political prisoner, or strike up a conversation in a language other than English with people who live in the same city where you are living as a guest. Studying abroad can be the most fascinating and life-changing experience students will have in the course of their college careers. Living and studying in a completely different culture challenges students to re-examine their basic attitudes and outlooks, and helps them become globally and internationally competent and culturally aware of similarities and differences. The Los Rios Study Abroad program is learning 24 hours a day, seven days a week when the classroom is an entire country and culture. Plus, it is incredible fun.

The Los Rios Community College District offers study opportunities in cooperation with the American Institute for Foreign Study, and the Northern California Study Abroad Consortium (NCSAC). Programs take place full semesters and during the summer. Classes are taught in English by community college faculty from Los Rios and other NCSAC, and students take 12 units of GE classes – the same classes that are offered in the community colleges here. Programs are offered on a rotating basis in Barcelona, London, Florence, Paris, Madrid, Capetown (South Africa), Beijing, Shanghai, and other sites on a rotating basis. The enriched curriculum includes language instruction, travel and field trips, cross-cultural experiences and resources not available at home to enhance the learning process.

For more information on how to apply for Study Abroad programs, call the Study Abroad office at (916) 691-7187 or visit the CRC home page and click on the Study Abroad link, or click on the Quicklinks from any of the other Los Rios college and District home pages, which will take you directly to www.crc.losrios.edu/abroad.

COOPERATIVE WORK EXPERIENCE
EDUCATION & INTERNSHIPS

(See Work Experience section, page 384)
DEGREE AND CERTIFICATE PROGRAMS

Cosumnes River College offers certificate and degree career/technical education programs for students planning to enter occupations directly upon completing their work at the college.

The College also offers two-year general education curricula, areas of emphasis and specific majors that can culminate in degrees that prepare students for transfer to a four-year college or university. Many four-year institutions will give partial or full credit for courses completed with acceptable grades. Some specific degree programs are directly aligned with four-year programs. Students are advised to work closely with a counselor to ensure successful transfer.

DEGREE PROGRAMS

CRC offers the Associate in Arts for Transfer (AA-T) and Associate in Science for Transfer (AS-T). The Associate Degree for Transfer guarantees that a student will be admitted to a CSU campus. Students with an AA-T or AS-T enter the CSU system with junior standing. Students who are admitted to a program that has been deemed similar will need only 60 more semester units (or 90 quarter units) to complete a bachelor’s degree. Students who complete an AA-T or AS-T will be given a special GPA advantage when applying to CSU impacted campuses or majors. The degree does not guarantee admission to a specific campus or major, so students should work hard to be academically competitive when applying to popular CSU campuses outside their local area and to popular majors. Please see this website for additional information about the Associate Degree for Transfer Program: http://adegreewithaguarantee.com.

CRC offers both Associate in Arts (AA) and Associate in Science (AS) degrees. Students planning to graduate with an Associate Degree must complete all of the required courses for the major, fulfill general education requirements and complete a sufficient number of electives to meet a minimum of 60 degree-applicable units. Please go to the specific programs of study on pages 63-362 of this catalog for details about degrees.

It is critical that students meet with a counselor to select and plan the courses for the major. Candidates for graduation must file a petition for graduation. Check the Academic Calendar (page 1) in this catalog and class schedule for the last date to file for graduation.

CERTIFICATE PROGRAMS

Certificate programs have been developed to assist those interested in acquiring specialized training to enter the workforce, for those already employed in business and industry or for those who desire to upgrade their current technical skills, 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, either a Certificate of Achievement or a Certificate of Proficiency is awarded. A Certificate of Achievement requires 18 or more units to complete. A Certificate of Proficiency requires less than 18 units to complete. Please go to the specific programs of study on pages 63-362 of this catalog for details.

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

DEGREE AND CERTIFICATE RESIDENCY REQUIREMENTS

Students must meet the Los Rios Board residency requirement of 12 units at Cosumnes River College to earn a CRC degree or certificate. To meet the residency requirements in the case of certificates that are less than twelve units, students must take the number required in the certificate at CRC. As long as the units are degree or transfer applicable, they do not all necessarily have to be the specific units required in the award.
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.

GRADES 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:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>Grade Point Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Passing, less than satisfactory</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>Failing</td>
<td>0</td>
</tr>
<tr>
<td>P</td>
<td>Pass</td>
<td>Not computed in GPA, but affects progress, probation and dismissal. Formerly known as “CR”.</td>
</tr>
<tr>
<td>NP</td>
<td>No Pass</td>
<td>Not computed in GPA, but (less than C) affects progress, probation and dismissal. Formerly known as “NC”.</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td>Not computed in GPA, but affects progress, probation and dismissal</td>
</tr>
<tr>
<td>IP</td>
<td>In Progress</td>
<td>Course transcends semester limitation</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
<td>Not computed in GPA, but affects progress, probation and dismissal</td>
</tr>
<tr>
<td>MW</td>
<td>Military Withdrawal</td>
<td>Not compiled in GPA and does not affect progress, probation and dismissal</td>
</tr>
</tbody>
</table>

“PASS-NO PASS” GRADING

(Formerly known as Credit-No Credit (CR/NC))

A student may elect one course per semester to be graded on a Pass or a No Pass basis. A request card must be filed with the Admissions and Records 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 “P,” with units earned. The equivalent of “D” or “F” will be recorded as “NP,” with no units earned. Units attempted for Pass-No Pass grades are not computed in the grade point average but are used for determining Probation and Dismissal. (See following page.)

A maximum of 15 credit units taken as “Pass/No Pass” may be applied toward the Associate in Arts or Science degree. A maximum of 25% of required units for certificates may be completed as “Pass/No Pass.”

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

Courses taken in Spring 2009 or earlier will be notated on the student transcript record as CR/NC. Courses taken in Summer 2009 or later will be notated as P/NP.

GRADATES 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.

GRADATES OF “W”
WITHDRAWAL FROM CLASS

A student may officially drop a class without notation (a “W” grade) on the permanent academic record/transcript prior to the point in which 20% of a class has occurred. These important dates are available at http://www.losrios.edu/lrc/lrc_calend.php (click on the appropriate semester, then click on “Click here for more information, including start/end dates, drop/add dates”). Withdrawals occurring after this time, and before the point in which 75% of the class has occurred, shall result in a “W” notation on the permanent academic record/transcript. Official withdrawals are those that have been processed via eServices or by staff in the Admissions and Records Office.

A “W” grade on the permanent academic recordtranscript is used for determining Progress Probation and Progress Dismissal. No withdrawals are permitted during the last 25% of a course, except due to extenuating circumstances (verified cases of accidents, illness or other circumstances beyond the control of the student), for which a student may request withdrawal through the student petition process. After consultation with the instructor and with administrative approval, the withdrawal may be recorded as a “W” rather than as a less than satisfactory or failing grade on the permanent academic record/transcript. In all other cases, after the 75% date, a student will receive a grade in the course.

Military withdrawal is available when supporting documentation showing orders compelling a withdrawal is provided along with a student petition. Military withdrawal is available for students who are members of an active or reserve military service, and who receive orders compelling a withdrawal from courses.

Medical withdrawals may be considered when supporting documentation is provided along with a student petition.

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.
REGULATIONS ON COURSE REPETITION

Repetition of courses must be conducted by all California community colleges in compliance with California Title V Regulations, Sections 55040 through 55046.

Course Repetition to Clear A Sub-Standard Grade:
A course may be taken once and repeated up to two times at any of the Los Rios colleges for which a notation of D, F, NC (No Credit), NP (No Pass), or W (Withdrawal) was earned. This regulation is effective across the district at all Los Rios colleges. If you took a course at any of the Los Rios colleges – American River, Cosumnes River, Folsom Lake, or Sacramento City, this counts as one of your three attempts.

Repeatable Courses:
Courses taken, earning a grade of C or better cannot be repeated. There are, however, certain specialized courses that are designated as “repeatable” and are listed as such in the course description. These include:

- Transfer level courses that may be taken more than once to meet the major requirement for transfer to a California State University (CSU) campus or to other universities with a similar transfer requirement.
- Variable unit courses that are open entry/exit such as math, reading and writing laboratory courses; these courses may be repeated up to the total maximum units allowed.
- Work Experience courses, which can be taken again when there is new or expanded learning on the job for a maximum of sixteen units.
- Interscholastic sports and their related conditioning courses may be repeated to meet requirements for CCCAA eligibility.
- Intercolligate academic or vocational competition courses with the primary purpose to prepare students for competition.

Non-Repeatable Courses – Petitioning for an Exception:
There are a few special circumstances that allow students to complete the petition process to repeat a course that does not meet any of the criteria listed in the section just above. These include:

- Courses where students need to meet a legally mandated or licensure training requirement as a condition of continued paid or volunteer employment. These repetitions are not limited and are granted based on the college’s verification of established legal mandates.
- A student may repeat a course because there has been a significant lapse of time (defined as at least three years) since the student previously took the course and there is a properly established recency prerequisite for a course or program within the district or at another institution of higher learning. In cases where a transfer university requires a community college course to be taken as a university prerequisite more recently than three years ago, a college may alter the three-year rule with documentation provided by the student. Grades awarded for courses repeated under this circumstance shall not be counted when calculating a student’s grade point average. This is a one-time exception.
- The college finds that the student’s most recent 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. This is a one-time exception.
- A special course that can be repeatable by petition so that a particular student can be approved to repeat it as a disability-related accommodation.

Limitations on Active Participatory Courses:
Active participatory courses are those courses where individual study or group assignments are the basic means by which learning objectives are obtained. These include kinesiology/physical education (PE) active participatory courses, as well as visual and performing arts active participatory courses (theatre arts, music and art). Some courses in these categories are related in content and have been placed in groups that the Los Rios colleges are calling families of courses. Each family of courses allows for skill development beyond an introductory level.

Students are limited to taking a maximum of four courses in any one family across all four Los Rios colleges, regardless of how many courses there are; sometimes a family of courses may include more than four. For example, the Modern Dance Technique family of courses across the four Los Rios colleges includes five courses – DANCE 330 through DANCE 334 (Modern Dance I, II, III, IV, and V).

In addition, if a student gets a sub-standard grade (a notation of D, F, NC (No Credit), NP (No Pass), or W (Withdrawal)) in any course within a family, the sub-standard grade counts as one of the four course limitations in the family. The list of families of courses is available in the Admissions and Records Office at each college. Please consult with a counselor for more information.

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:

- A student may have previous substandard work earned within the District alleviated if it is not reflective of a student’s current demonstrated ability according to the following regulations and procedures;
- For purposes of academic renewal, substandard work is defined as a D or F;
- The maximum amount of coursework that may be alleviated is thirty (30) units;
- A minimum of 12 consecutive months shall have elapsed since the end of the semester or summer session in which the work to be alleviated was recorded; and a minimum of twelve (12) semester units (or its equivalent) with a grade of C, Credit, or Pass or better shall have been attained. The coursework must have been completed at a regionally accredited college;
- All work on the permanent record must remain legible, ensuring a true and complete academic history;
- College procedures related to academic renewal will be published in the College catalog and will be implemented by the Office of Admissions and Records;
- Records of academic renewal action shall be kept by the Admissions and Records Office at each college.
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", "NC", and "NP" 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", "NC", and "NP" units drop below one half.

**Computation:**
- Grade Point Average = \[
\frac{\text{Total Grade Points Earned (divided by)}}{\text{Total Units Attempted with letter grade}}
\]
- Progress Percentage = \[
\frac{\text{Total Units with "W", "I", "NC", and "NP" (divided by)}}{\text{Total Units Enrolled}}
\]

DISMISSAL

**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", "NC", and "NP" 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 Counseling and 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.

CLASS ATTENDANCE AND DROPS

Class Attendance Requirements and Instructor Initiated Drops:
1. Students are expected to attend all sessions of the classes in which they are enrolled.
2. A student who fails to attend the first session of a class may be dropped by the instructor and his/her seat may be given to the next student on the Wait List.
3. Students who attend none of the first three class sessions will be dropped by the instructor. If a class is scheduled for only one session per week, then students who have not attended at least one of the first two sessions will be dropped by the instructor.
4. Students with excessive absences (6% or more of the total hours of class time) may be dropped by the class instructor.
5. Faculty will ensure that their class rosters accurately reflect student attendance by the census date of the relevant term.

Student Initiated Drops:
While faculty will follow the attendance and drop criteria listed above, it is ultimately students’ responsibility to monitor their enrollment status and drop classes they do not, for whatever reason, intend to complete. Students can drop classes online or in person at the CRC Admissions & Records Office. Any student who fails to drop an unwanted class by the required deadline, risks earning a "W" notation or "F" grade on his/her transcript. Drop deadlines are available on the Academic Calendar: http://www.losrios.edu/lrc/lrc_calend.php (click on the appropriate semester, then click on “Click here for more information, including start/end dates, drop/add dates”)

Veterans and Dropped Classes:
Veterans who drop below the number of units required by the Veterans Administration (VA) for any reason during a semester, including being dropped from a class for excessive absences, may lose part of their VA educational benefits.

NO SHOW

Students who are not present at the first class meeting may be dropped by the instructor, and their seat may be given to a student from the wait list. Students will be dropped if they fail to attend at least one of the first three sessions of a full term class.

UNIT LOAD

Los Rios Community College District Regulation R-7211, defines fifteen (15) units each semester to be a full academic unit load. Twelve (12) units each semester is the minimum number of units a student can take to still be considered to be carrying a full-time load; the 12-unit load is usually acceptable to qualify for scholarships, grants, loans and to hold student offices at the College.

Eighteen (18) units per semester is the maximum load, across the District at all four Los Rios colleges. A petition to exceed this maximum must be submitted in writing, prior to registration, to the college at which the additional units will be taken. A student may petition up to a maximum of six (6) additional units district-wide through the petition process.

Eight (8) units per summer session is the maximum load, across the District at all four Los Rios colleges. Unit limit shall be District-wide. A petition to exceed this maximum must be submitted in writing, prior to registration, to the college at which the additional units will be taken. A student may petition up to a maximum of four (4) additional units district-wide through this process.
**LEAVE OF ABSENCE**

Los Rios Community College District Policy P-7243 allows students to petition for leaves of absence from a college of the District in order to maintain Catalog Rights to a specified degree requirement option.

Leaves of absence may be granted for verified medical and military situations that prevent the student from attending classes in any college session in a calendar year. Such leaves shall be limited to two (2) successive calendar years. In extenuating circumstances, a leave of absence may be extended beyond the two-year limit.

A petition for a leave of absence should be filed in advance whenever possible. Students requesting a leave of absence during a semester must follow campus withdrawal procedures. Students applying for a medical leave of absence must furnish a statement from the attending medical physician explaining the necessity for the student to interrupt enrollment. A student applying for a leave of absence from a college for military service must furnish a copy of the military orders.

**AUDITING COURSES**

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

**STUDENT CLASSIFICATION**

<table>
<thead>
<tr>
<th>Part-Time</th>
<th>A student carrying fewer than 12 units</th>
</tr>
</thead>
<tbody>
<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 which is posted each semester in “Important Information for All Students” on the College’s Class Schedule website so students may be notified in sufficient time regarding the examination schedule. Please go to: www.crc.losrios.edu/FinalExamSchedule

**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 Pass (P) or Credit (CR). Students who earn a grade point average of at least 3.0 are Honors students. If they earn a grade point average of 3.5 or better, they have achieved Highest Honors.

**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 of the Commencement Program and may be subject to subsequent revision.

**ACADEMIC FREEDOM**

Academic Freedom is essential for the fulfillment of the educational mission of the Los Rios Community College District and for the ability of faculty members to perform their professional duties. Faculty members have the principal right and responsibility to determine the methods of instruction, the planning and presentation of course materials, and the fair and equitable methods of assessment in their assignment in accordance with the approved curriculum and course outline and the educational mission of the District in accordance with state laws and regulations. All faculty members should: (a) conduct a classroom environment that is conducive to student learning, growth, and development; in which students are free from discrimination, prejudice, and harassment; and in which students are free to express relevant ideas and opinions; and (b) clearly differentiate to students the expression of a faculty member’s personal opinions or convictions from the objective presentation of theory, fact or ideas.
ACADEMIC INTEGRITY

The following information is of importance to CRC faculty and students for ensuring a positive learning environment in the classroom.

General Expectations of Student Behavior

As members of the CRC community, we are entitled to, and responsible for, creating a campus climate that supports excellence in teaching and learning, personal growth and development, and an atmosphere that is safe for, and respectful to, all students, faculty, and staff. Every member of our community must abide by guidelines, regulations, and agreements. Students are a vital part of the college and are expected to abide by guidelines, regulations, laws, and agreements. The college has expectations and standards for appropriate student behavior, often considered “common courtesies.” They include, but are not limited to:

- Respectful and appropriate use of campus facilities, resources, and services—the cafeteria, library, and any other gathering space on campus are shared spaces. Consistent with the CRC Honor Code, students should be respectful of others, conscious of their language, volume, tone, and content of their personal conversations while using public spaces.

- Respectful interactions with faculty, staff, and students—Resolving conflict includes dialogue, understanding and patience. Students who are unsure of the appropriate steps to take in order to resolve an issue are encouraged to consult a CRC Counselor, the Dean of Counseling, Dean of Student Services, or Campus Police.

- Being a responsible student—Showing up to class on time, being prepared, completing assignments, communicating with the professor, and participating appropriately in class are all essential to being a responsible student on a college campus. Students must make every effort to be on time and to communicate to faculty when they will be late or unable to attend.

STUDENT DISCIPLINE PROCESS

Students may be referred to the Student Discipline Officer for a number of reasons, including continued disruptive behavior, profanity, or other behaviors that impede the teaching and learning process in the classroom or on campus. Students will be notified of the referral and may receive a warning notice or be scheduled for a discipline meeting. Students are entitled to due process, including a hearing and an appeal process. Students who have questions regarding the student discipline process or regulations may contact the Office of the Vice President for Student Services.

ACADEMIC INTEGRITY STATEMENT

CRC values academic integrity (honesty, trust, fairness, respect, and responsibility). It recognizes that individuals can achieve their maximum potential and contribute appropriately to the well-being of the larger community only if they recognize the ethical dimensions of decisions and actions. The college assumes all members of the academic community will exhibit academic integrity supporting student access, academic quality, academic rigor, innovation and collegiality.

Definition of Plagiarism

Plagiarism is defined as representing the words, ideas, or work of another as one’s own in any academic exercise. Plagiarism consists of taking the words or substance of another work and either copying or paraphrasing without giving credit to the source. Plagiarism is applicable to written, oral, and artistic work. The following examples are only some of the many forms plagiarism may take:

1. Word-for-word copying of work written by someone else.

2. Failure to give proper credit for ideas, statements of facts, or conclusions derived by another.

3. Failure to use quotation marks when quoting directly from another, whether a paragraph, sentence, or phrase.

4. Close and extended paraphrasing of another work without acknowledging the source.

Definition of Cheating

Cheating is the act of obtaining or attempting to obtain credit for academic work through the use of dishonest, deceptive, or fraudulent means. The following are only some of the many forms cheating may take:

1. Copying another’s work on a test, paper, or project.

2. Using unauthorized materials in an exam or collaborating on work to be turned in for credit where the instructor disallows such collaboration.

3. Taking an exam for another student, purposely allowing another student to copy during a test, or providing coursework for another student to turn in as his or her own effort.

4. Fabricating, falsifying or misrepresenting data or results from experiments, interviews or surveys.

5. Submitting the same work in more than one class for credit without permission from the instructor.

6. Knowingly furnishing false information to the college.
ENSURING ACADEMIC INTEGRITY AT CRC

Current college policies prohibit dishonesty, such as cheating, plagiarism, or knowingly furnishing false information to the college. CRC’s recommended discipline process with regard to plagiarism and cheating is available from the Office of the Vice President of Student Services. Course syllabi should reference the process.

1. Faculty members have the right to choose whether or not to pursue suspected cases of plagiarism and cheating.

2. When addressing plagiarism or cheating with reasonable evidence, the faculty member should notify the student of the concern.

3. Faculty members may consult with the Vice President for Student Services when determining whether plagiarism or cheating has occurred.

4. In situations where cheating or plagiarism has occurred, the faculty member is to determine consequences in compliance with board policy and regulations, which prohibit dropping a student from a course. The consequences may be any of the following options:
   - giving the student a verbal or written warning
   - giving the student an additional assignment
   - giving the student a zero on the assignment
   - determining other appropriate consequences that comply with board policy and regulations

5. In situations where cheating or plagiarism has occurred, the faculty notifies the student that a “Referral for Student Code of Conduct Violation” will be filed with the Vice President of Student Services.

6. Students have the right to grieve an action that they feel violates their student rights.

7. The Office of the Vice President for Student Services (w) shall be responsible for maintaining records related to cheating and plagiarism.

Probation, suspension or expulsions are courses of action that may be determined by the Vice President for Student Services, in accordance with Los Rios Community College District policy.

CRC HONOR CODE

CRC’s Honor Code serves as a bridge between the College Catalog’s formal treatment of academic integrity and the day-to-day decisions of the members of our academic community. Its focus is on core academic values, the appropriate expression of those values in behavior, and the way those values create and sustain our academic community. It is intended as a straightforward tool for communicating and clarifying the college’s fundamental expectations. It is also intended to be used frequently and easily.

Suggested Honor Code Uses:
- As a syllabic supplement
- In conjunction with major assignments
- In conjunction with field trips/special events
- As a classroom management tool
- As documentation in the context of:
  - Referrals for “Student Code of Conduct” violations
  - Grievances processes
  - Student Disciplinary Appeals processes

Cosumnes River College Honor Code*
Approved by the Cosumnes River College Academic Senate on 10-26-07
Approved by the Cosumnes River College Executive Council on 3-27-08

I understand that Cosumnes River College (CRC) values academic integrity. Academic integrity requires:

Honesty, which means:
- A commitment to truthfulness
- The refusal to steal or mislead, cheat or plagiarize

Fairness, which means:
- The willingness to treat others as I would wish to be treated upon careful consideration

Respect, which means valuing, in attitude and practice:
- All human beings
- Myself
- My community at CRC and beyond

Responsibility, which means:
- Recognizing that the quality of a CRC education and the quality of the CRC student experience depend upon my behavior
- Accepting, at all times, the consequences of my actions

I understand that I, as a member of the Cosumnes River College community, am responsible for upholding this value, supporting academic quality, academic rigor, and an appropriate college atmosphere.

* This code is modeled after that of Santa Monica Community College, Santa Monica, CA
CRC FACULTY STATEMENT ON PROFESSIONAL ETHICS
(Adapted from the American Association of University Professors' Statement on 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 educators, 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 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.

6. As members of a diverse, multicultural community, faculty members acknowledge a responsibility to cultural, gender and ability sensitivity that goes beyond tolerance and deference. Faculty members model these sensitivities in the classroom, on campus, and in the wider community.

7. The dual mission of the community college is to prepare students for success in both careers and participatory citizenship. Lowering standards to pass students along undermines their abilities to meet future challenges. Maintaining sound and fair standards while helping students to understand those standards together provide a realistic view of what can be expected in other educational institutions and in the larger society beyond the college campus.
Student Rights & Responsibilities

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 student 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 Equity Officer (Titles VI and VII), Dean of College Planning and Research, LRC 123, (916) 691-7144; Vice-President, Student Services and Enrollment Management, Gender Equity Coordinator (Title IX), at College Center (916) 691-7487; Dean of Counseling & Student Services (Section 504 and ADA, American Disabilities Act), Library Building, Room L220 (916) 691-7333; or Associate Vice Chancellor of Human Resources, Los Rios Community College District, 1919 Spanos Court, Sacramento, CA 95825 (916) 568-3101; or to the Director of the Office of Civil Rights, U.S. Department of Health, Education and Welfare, Washington, D.C.

Note: The lack of English language skills is not a barrier to admission to, and participation in, vocational education programs and services.

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, 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.

STUDENTS’ RIGHTS AND RESPONSIBILITIES

Citizenship: In joining the academic community, students enjoy the right of freedom to learn and share the responsibility in exercising that freedom. Students are expected to conduct themselves in ways appropriate to the educational purposes of the college.

Faculty Performance Review: Students may be asked to complete a questionnaire in each class where the professor is undergoing performance review.

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 Admissions and Records Office. Students receiving financial aid must also notify the Financial Aid Office of mailing address changes.
STUDENT GRIEVANCE PROCEDURE

Students may file a grievance in the event of alleged breach of students’ rights as detailed in Los Rios Community College District Board of Trustees 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 Dean of Counseling and Student Services. The grievance must contain a specific statement of the alleged act of wrongdoing, the name of the person against whom the grievance is filed, the names of any witnesses, and the nature of the relief sought 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 Dean of Counseling and Student Services will determine whether the issue is grievable under the policies and regulations of the Los Rios Community College District, at which time, if the issue is grievable, a hearing will be scheduled. If it’s not grievable, the Dean 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 Dean and Vice President for Student Services, the college President and the Vice Chancellor responsible for Student Services.

• Either party to the grievance may appeal the Hearing Officer’s decision to the Vice President for Student Services 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 for Student Services 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 for Student Services 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 Dean of Counseling and Student Services.

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 (916) 691-7254 for more information.

CAMPUS SECURITY: THE CLERY DISCLOSURE ACT

The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, codified at 20 USC 1092 (f) as a part of the Higher Education Act of 1965, is a federal law that requires colleges and universities to disclose certain timely and annual information about campus crime and security policies. All public and private post secondary educational institutions participating in federal student aid programs are subject to it.

The law, originally enacted by Congress in 1990 as the Campus Security Act, was championed by Howard and Connie Clery after their daughter Jeanne was tragically murdered at Lehigh University in 1986. Amendments to the Act in 1998 renamed it in memory of Jeanne Clery.

The Clery Act requires all colleges and universities to publish an annual report every year by October 1st that contains 3 years worth of crime statistics and certain security policy statements including sexual assault policies which assure basic victims’ rights, the law enforcement authority of campus police and where the students should go to report crimes. CRC’s crime statistics are available at: http://police.losrios.edu/clery

Campus safety and security and crime prevention advice is available in the “General Policies and Information” section of “Important Information for All Students” that accompanies the class schedule: www.crc.losrios.edu/schedule
SMOKING POLICY

Smoking is allowed in designated areas only. See campus map for details. Failure to comply may result in a citation by Campus Police or referral for student discipline.

ILLEGAL DISTRIBUTION OF COPYRIGHTED MATERIALS, INCLUDING MUSIC, VIDEO AND PRINTED MATERIALS

The colleges of the Los Rios Community College District (LRCCD), including Cosumnes River College (CRC), support the Higher Education Opportunity Act and Digital Millennium Copyright Act, which outline efforts to eliminate the illegal distribution of copyrighted material. Under the law, college administrators may be obligated to provide copyright holders with information about users of the LRCCD information network who have violated the law.

Accordingly, CRC students are prohibited from using the Los Rios Community College District (LRCCD) information network to illegally download and/or share music, video and all other copyrighted intellectual property. Be aware that illegal forms of downloading and file sharing as well as the unauthorized distribution of copyrighted materials are violations of the law and may subject you to academic sanctions from the college as well as criminal and civil penalties, including a lawsuit against you by the Recording Industry Association of America (RIAA).

In addition to being illegal, file sharing drains the LRCCD network’s bandwidth, which slows computer connections for students and employees who are using the network for legitimate academic purposes and ultimately costs the college money. LRCCD and its colleges have developed policies and consequences to ensure that students properly use the LRCCD information network and respect music and other forms of intellectual property as well as conduct responsible use of the Internet.

Please review these policies at:
www.losrios.edu/legal/Policies/P-8000/P-8000.htm
and especially www.losrios.edu/legal/Policies/P-8000/P-8861.htm

There are plenty of easy, affordable ways to get music online legally. To protect their intellectual property, companies have licensed hundreds of digital partners that offer a range of legal downloading options, including download and subscription services, legitimate peer-to-peer services, video-on-demand, podcasts and CD kiosks. For a list of sources that offer legal downloading sites, access www.riaa.com

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 College Police at (916) 691-7777.

With the consent of the victim, College Police shall notify the College Health Center and Vice President for Administrative Services. The information shall be provided with sensitivity and with consideration to 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.
- 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 report 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, 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 Regulation (R-2423). Throughout the procedures, the College President and the College/District Equity 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 college Equity Officer, Dean of College Planning and Research, LRC 123 (916) 691-7144.

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/index.asp.

LOS RIOS POLICE DEPARTMENT AT CRC

The Los Rios Police Department is staffed by dedicated, professional, and community service oriented employees located at each of the four colleges. Campus Police protect the safety and security of all students, faculty, staff, visitors, and property as well as provide accurate and timely information about the security environment of the college and our surrounding community. The Los Rios Police Department is staffed with sworn police officers, college safety officers, campus security officers, dispatchers, clerks, and student assistants. Officers use foot, bike and vehicle patrols to serve the campus population and maintain high visibility on the campus. Campus Police enforce state and local laws the same as any sworn law enforcement agency and are authorized to use force, arrest, and cite anyone who violates the law.

Students may not be aware of their responsibilities and rights when they are stopped or questioned by Campus Police. If you are stopped by a College Police Officer, please remember:

- When you see the red overhead lights and/or hear the siren, remain calm and pull safely over to the side of the road

- Remain in your vehicle unless the Officer advises otherwise and follow the requests or directives given

- The Officer may issue you a citation. If you are unsure of the reason, ask the Officer for details. Accept the citation and sign it- this is not an admission of guilt. State law mandates that if you refuse to sign, you will be arrested

These guidelines apply both on campus and in the surrounding area. Campus Police attend to numerous issues and problems, including loud and disruptive behavior, violations of the law or the standards for student behavior, and crimes. You may be approached if an Officer thinks you are in need of help, have violated rules, laws, or the college standards, or fit the description of a suspect or witness. The Officer may ask you to provide identification or proof of enrollment. Unless you are not certain that the person stopping you is an Officer or an official of the college, you are to comply with the request.

CRC students are expected to have their student ID/UTP card on them when on campus. Some students have challenged officers and resisted arrest (this is a misdemeanor) and have been subject to citation, arrest, and student disciplinary action. Campus Police are committed to campus safety and well-being and are here to support student success and development. If you have a question about procedures or a complaint about your treatment, contact the Los Rios Police Department at (916) 691-7400 and ask to speak with a supervisor.
# RESOURCES FOR STUDENT CONCERNS

The following is a list of staff members who are serving as compliance officers for certain types of complaints, grievances, or disciplinary matters at CRC.

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<tr>
<th>Role</th>
<th>Name</th>
<th>Office</th>
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<tbody>
<tr>
<td><strong>College Equity Officer</strong></td>
<td>Kathy McLain</td>
<td>LRC Building</td>
<td>(916) 691-7144</td>
</tr>
<tr>
<td>Serves as first level compliance officer for student and staff complaints/ allegations based on ethnicity, religion, age, sex, (gender), sexual orientation, sex bias, sex stereotyping, color, or physical or mental disability as set forward in District Regulations (R-2434). Provides information about discrimination complaint procedures and forms. After initial contact, may initiate a detailed investigation and resolution or may refer certain complaints to the appropriate, specialized compliance officer.</td>
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<tr>
<td><strong>Disciplinary Officer</strong></td>
<td>Celia Esposito-Noy</td>
<td>Administration Building</td>
<td>(916) 691-7487</td>
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<tr>
<td>Receives and investigates referrals of student discipline and student disruptions. Makes recommendations for disciplinary action consistent with district's regulations on student conduct. Presents case to an appeals board if student appeals disciplinary decision. May work in concert with college police, student grievance officer and/or college equity officer.</td>
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<tr>
<td><strong>Student Grievance Officer</strong></td>
<td>Mike Marion</td>
<td>Library Building</td>
<td>(916) 691-7350</td>
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<tr>
<td>Available to students who feel they have been wronged in accordance with district regulations and wish to file a grievance. Provides grievance procedures and forms. <strong>Note:</strong> If the situation involves alleged discrimination based on a protected status, then the student should contact the College Equity Officer. Determines if issue is grievable according to district regulations and Education Code. Provides information to Vice President of Student Services, if student appeals.</td>
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<tr>
<td><strong>Sexual Harassment Officer</strong></td>
<td>Kathy McLain</td>
<td>LRC Building</td>
<td>(916) 691-7144</td>
</tr>
<tr>
<td>Investigates and attempts to resolve sexual harassment complaints from students and staff as set forth in the district regulations (R-2423). Provides information about complaint procedures and forms. After initial contact, may initiate a detailed investigation and resolution or may refer certain complaints to the appropriate, specialized compliance officer.</td>
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<tr>
<td><strong>Title IX Coordinator</strong></td>
<td>Celia Esposito-Noy</td>
<td>Administration Building</td>
<td>(916) 691-7487</td>
</tr>
<tr>
<td>Oversees sex and gender equity conditions for staff and students. Responds to and seeks resolution of discrimination complaints based on gender, sex, sexual harassment, and sexual assault. Works in concert with Dean of Kinesiology and Athletics, College Equity Officer, and college police. For information on filing a Title IX complaint, contact the Vice President for Student Services’ Office.</td>
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<td><strong>504 Coordinator</strong></td>
<td>Mike Marion</td>
<td>Library Building</td>
<td>(916) 691-7350</td>
</tr>
<tr>
<td>Oversees the campus compliance with 504 Federal Regulations and Board approved policy to ensure nondiscrimination on the basis of disability. Serves as first level grievance/complaint official when discrimination on the basis of disability is alleged. Carries out the provisions of the grievance procedure and impartially investigates any complaint. For information on the process for filing a grievance, contact the Dean of Student Services and Counseling.</td>
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<tr>
<td><strong>Americans with Disabilities Act (ADA) Coordinators</strong></td>
<td>Mike Marion (for students)</td>
<td>Library Building</td>
<td>(916) 691-7350</td>
</tr>
<tr>
<td>Celia Esposito-Noy (for faculty and staff)</td>
<td>Administration Building</td>
<td>(916) 691-7252</td>
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<tr>
<td>Carries out the provisions of the Americans with Disabilities Act. Ensures that students/staff applying for services under this act have proper disability verification. Oversees the campus compliance with ADA regulations. <strong>Note:</strong> Most complaints, grievances or disciplinary matters should be resolved at the campus level. This is the quickest and most successful way of resolving issues involving the college. You are encouraged to work through the college complaint process first. Issues that are not resolved at the college or Los Rios District level may be presented via resources provided by the California Community Colleges Chancellor's Office.</td>
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<td><strong>Americans with Disabilities Act (ADA) Coordinators</strong></td>
<td>Mike Marion (for students)</td>
<td>Library Building</td>
<td>(916) 691-7350</td>
</tr>
<tr>
<td>Cory Wathen (for faculty and staff)</td>
<td>Administration Building</td>
<td>(916) 691-7252</td>
<td></td>
</tr>
<tr>
<td>Celia Esposito-Noy (for students with service animals)</td>
<td>Administration Building</td>
<td>(916) 691-7487</td>
<td></td>
</tr>
<tr>
<td>Carries out the provisions of the Americans with Disabilities Act. Ensures that students/staff applying for services under this act have proper disability verification. Oversees the campus compliance with ADA regulations. <strong>Note:</strong> Most complaints, grievances or disciplinary matters should be resolved at the campus level. This is the quickest and most successful way of resolving issues involving the college. You are encouraged to work through the college complaint process first. Issues that are not resolved at the college or Los Rios District level may be presented via resources provided by the California Community Colleges Chancellor's Office.</td>
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COURSES DESIGNATED FOR TRANSFER TO THE CALIFORNIA STATE UNIVERSITY SYSTEM

Courses numbered 300-499 are accepted for transfer by California State University (CSU) campuses. Although these courses are intended to meet major, general education, breadth or elective credit requirements, in some cases they may not do so. Please meet with a counselor for specific transfer course evaluation as you are planning the courses you plan to take at CRC.

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID)

The Course Identification Numbering System (C-ID) is a statewide numbering system independent from the course numbers assigned by local California community colleges. A C-ID number associated with a course signifies that the course is comparable in content and scope to courses offered at other California community colleges, regardless of course title or local course number. For example, a student who completed a communications course that has the C-ID designator COMM 110, would be assured that it would be accepted in lieu of a course with the same C-ID designator at any California community college.

The C-ID numbering system is useful for students attending more than one community college, as a way to identify comparable courses, and is applicable to many of the courses that students are required to complete as preparation for transfer. However, students should always use ASSIST (www.assist.org) to confirm how each community college’s course(s) will be accepted at a specific CSU or UC for transfer credit, especially for major preparation. Because these course requirements may change, and because courses may be modified and qualified for or deleted from the C-ID database, students should always check with a counselor to determine how C-ID designated courses fit into their educational plans for transfer. The list of C-ID numbers for CRC is available on the ASSIST website (www.assist.org).

NEW ASSOCIATE DEGREES FOR TRANSFER NOW AVAILABLE

California Community Colleges are now offering associate degrees for transfer to the CSU. These may include Associate in Arts (AA-T) or Associate in Science (AS-T) degrees. These degrees are designed to provide streamlined pathways to CSU majors and baccalaureate degrees. In order to earn one of these degrees, students must complete 60 required semester units of CSU-transferable coursework, which includes the designated major and either the CSU GE Breadth or the IGETC requirements. Courses in the major must be completed with “C” grades or better, and an overall cumulative GPA not less than a 2.0.

California Community College students who are awarded an AA-T or AS-T degree are guaranteed admission with junior standing somewhere in the CSU system and given priority admission consideration to their local CSU campus or to a program that is deemed similar to their community college major. This priority does not guarantee admission to specific majors or campuses of the CSU. Current and prospective community college students wishing to transfer are encouraged to meet with a counselor to review their options for transfer and to develop an educational plan that best meets their goals and needs.

For students wishing to transfer to other universities (UC System, private or out-of-state), these degrees may not provide adequate preparation for upper division transfer admissions; it is critical that a student meet with a CRC counselor to select and plan the courses for the major they wish to pursue upon transfer, as programs vary widely in terms of the required preparation.

Students who have been awarded an AA-T or AS-T are able to complete their remaining requirements for the 120-unit baccalaureate degree at a CSU campus within 60 semester or 90 quarter units.

The following Associate Degrees for Transfer are now available and can be found on the pages of this Catalog with the same Program name:

1. Anthropology for Transfer (AA-T)
2. Art History for Transfer (AA-T)
3. Business Administration for Transfer (AS-T)
4. Communication Studies for Transfer (AA-T)
5. Early Childhood Education for Transfer (AS-T)
6. Elementary Teacher Education for Transfer (AS-T)
7. English for Transfer (AA-T)
8. Geography for Transfer (AA-T)
9. Geology for Transfer (AS-T)
10. History for Transfer (AA-T)
11. Journalism for Transfer (AA-T)
12. Kinesiology for Transfer (AA-T)
13. Mathematics for Transfer (AS-T)
14. Physics for Transfer (AS-T)
15. Psychology for Transfer (AA-T)
16. Sociology for Transfer (AA-T)
17. Studio Art for Transfer (AA-T)
18. Theatre Arts for Transfer (AA-T)
GENERAL TRANSFER INFORMATION

Students who plan to transfer should take courses required by the institution they are preparing to attend. For detailed requirements for a specific major and college or university, students are strongly advised to meet with a counselor regularly because major preparation and general education requirements can change from year to year.

Transferable Courses
Transferable courses can satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

Transfer Credit
Courses accepted for transfer by the University of California (UC) and/or California State University (CSU) are listed with the course description and are identified in the “course transferable to” area.

Students who have questions regarding transferability of credits for specific courses to specific institutions should consult with a counselor.

TRANSFERRING TO A CALIFORNIA STATE UNIVERSITY (CSU)

Students planning to transfer to a CSU or UC should plan a program to meet the admission, lower-division major preparation, and general education requirements of the specific institution that they plan to attend. Transfer admission eligibility is based on transferable college units. Each institution has its own requirements for admission and for junior standing. To prepare for transfer, students must decide which four-year college or university they want to attend and meet with a counselor for the specific requirements to create an educational plan.

CSU General Education-Breadth Requirements and Certification
Students will be required to complete a minimum of 48 semester units in general education for a bachelor’s degree at a CSU. Students can complete a maximum of 39 units of general education courses at a community college, but nine (9) units are upper-division courses that must be completed at the CSU.

Cosumnes River College will complete and send a GE-Breadth
Certification for students to the CSU of their choice, upon request, to verify completion of the 39 units of general education requirements. For full certification, all 39 units must be completed. Courses completed at other colleges/universities will need to be evaluated by a counselor. Please call the Counseling Center for an appointment.

CSU Upper-Division Transfers
Generally, applicants will qualify for admission as upper-division transfer student if they:

1. Have a grade point average of at least 2.0 (“C” or better) in all transferable units completed
2. Have completed a minimum of 60 semester or 90 quarter transferable units
3. Are in good standing at the last college or university attended
4. Have completed at least 30 semester units of college coursework with a grade of “C” or better in each course to be selected from courses in English, arts and humanities, social science, science and mathematics at a level at least equivalent to courses that meet general education requirements. The 30 units must include courses in: Oral Communication (A1), Written Communication (A2), Critical Thinking (A3), and Mathematics/Quantitative Reasoning (B4).

NOTE: These are minimum requirements for admission to the CSU. Some specific major and university requirements may be more selective. See a counselor for more detail.

TRANSFERRING TO A UNIVERSITY OF CALIFORNIA (UC)

UC General Education Requirements and Certification
General Education requirements are designed to give University undergraduates a broad background in all major academic disciplines. Every UC campus and school or discipline has its own general education requirement. Students have the option of completing the Intersegmental General Education Transfer Curriculum (IGETC).

Completion of all the general education requirements in the IGETC will permit a student to transfer to either a University of California or California State University system without the need, after transfer, to take additional lower-division general education courses. For full IGETC Certification, the course requirements for all areas must be completed. All courses must be completed with a “C” grade or better. Student must meet with a counselor to complete the IGETC Certification. Please call the Counseling Center for an appointment.

UC Upper Division Transfer
To be eligible for admission as a junior transfer student, a student must fulfill both of the following criteria:

1. Complete 60 semester (90 quarter) units of transferable college credit with a GPA of at least 2.4 (2.8 for nonresidents). No more than 14 semester (21 quarter) units may be taken Pass/No Pass (formerly Credit/No Credit).
2. Complete the following course pattern requirements, earning a grade of “C” or better in each course:
   a. Two transferable college courses (3 semester or 4-5 quarter units each) in English composition;
   b. One transferable college course (3 semester or 4-5 quarter units) in mathematical concepts and quantitative reasoning,
   c. 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, and the physical and biological sciences.

NOTE: These are minimum requirements for admission to the UC. Some specific major and university requirements may be more selective. See a counselor for more detail.
TRANSFERRING TO OTHER 4-YEAR COLLEGES & 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.

Consult the CRC Articulation web site for information about agreements between CRC and selected colleges/universities. The web address is: www.crc.losrios.edu/Community/Articulation.htm. Click on “University Articulation Agreements.” Make sure you work with your counselor as you plan for transfer.
COSUMNES RIVER COLLEGE COURSES CERTIFIED TO MEET CSU GENERAL EDUCATION

A total of 39 units of lower division general education may be certified by Cosumnes River College. Students will be required to complete an additional 9 semester units of upper division general education course work after transfer.

It is important that students seek the aid of a counselor when selecting courses, in an effort to ensure proper completion of the general education requirements for an Associates Degree in a specific Major, as well as certification of completion of CSU GE and Breadth requirements.

A. COMMUNICATION IN THE ENGLISH LANGUAGE AND CRITICAL THINKING
9 units to include one course from A1, one course from A2 and one course from A3:
A1. Oral Communication
COMM 301, 331, 361
A2. Written Communication
ENGRD 310, 480; ESLW 340; HONOR 375
A3. Critical Thinking
COMM 311, 315; ENGRD 310; ENGWR 301, 302; PHIL 300, 320, 325, 328; SOC 305

B. PHYSICAL UNIVERSE AND ITS LIFE FORMS
Minimum of 9 units, with at least 3 units from the Physical Science category, 3 units from the Life Science category and 3 units from the Mathematics/Quantitative Reasoning category, and at least one course containing a laboratory activity (B1) or (B2).
(Courses with single * indicate a laboratory only course; courses with double ** indicate a lecture and laboratory course.)
B1. PHYSICAL SCIENCE
B2. LIFE SCIENCE

B3. THE LABORATORY ACTIVITY courses marked with * may be used to satisfy the laboratory requirement only when the corresponding lecture course is also taken (e.g., ANTH 301* with ANTH 300; ASTR 400* with ASTR 300)

B4. MATHEMATICS/QUANTITATIVE REASONING
MATH 300, 310, 335, 341, 343, 344, 350, 351, 370, 400, 401, 402, 410, 420; PSYC 330; STAT 300

C. ARTS, LITERATURE, PHILOSOPHY AND FOREIGN LANGUAGE
Minimum of 9 units to include at least one course from the Arts category (C1) and one course from the Humanities category (C2). C1. ARTS (Arts, Dance, Music, Theater)
ARCH 310, 332; ART 300, 302, 304, 305, 312, 320, 323, 324, 327, 328, 361, 370, 372, 430; ARTH 300, 303, 307, 309, 311, 312, 325, 328, 332, 333; ARTPH 301; 342; FMS 300, 305, 320, 357, 360; MLISM 370; PHOTO 301, 420; RTVF 305, 378; TA 300, 302, 303, 305, 306, 322, 323, 350, 356, 401

C2. HUMANITIES (Literature, Philosophy, Foreign Language)
ARTH 328, 333; ENGW 400, 410, 480; ENGL 303, 310, 311, 320, 321, 330, 336, 340, 341, 343, 345, 360, 370, 402; ENGW 301; FMS 488; GEOG 481; HIST 364, 365, 380; HONOR 350, 360 (must have 3 units), 364, 382; HUM 300, 301, 310, 320, 321, 331, 332, 484, 486 (must have 3 units); PHIL 300, 304, 310, 320, 321, 322, 331, 332, 350, 352, 356; SILA 315, 316; SPAN 401, 402, 411, 412, 413, 415, 425, 426, 427; VET 311, 312, 401, 402, 411, 412

D. SOCIAL, POLITICAL AND ECONOMIC INSTITUTIONS AND BEHAVIOR, HISTORICAL BACKGROUND
Minimum of 9 units
AGB 321; ANTH 310, 316, 323, 324, 331, 332, 334, 341, 374; BUS 330, 345; COMM 325, 341, 365, 480; ECE 312, 314; ECON 302, 304, 306; GEOG 302, 310, 320, 322, 481; HIST 301, 302, 307, 308, 312, 313, 314, 320, 321, 331, 344, 360, 364, 365, 370, 371, 373, 380; HONOR 340, 370 (must have 3 units); HUM 484; JOUR 310, 320; PHIL 360; POLS 301, 302, 304, 310, 311, 312, 313, 314, 315, 317, 318, 319, 320, 324; PSYC 300, 312, 320, 335, 340, 353, 368, 371; RTVF 300; SILA 330; SOC 300, 320, 325, 330, 360, 480 (must have 3 units); SOC 300, 301, 305, 310, 321, 341; TA 306

E. LIFE LONG UNDERSTANDING AND SELF DEVELOPMENT
Minimum of 3 units selected from the following courses:
COMM 321; ECE 312, 314; ENGED 320; FCS 322, 324; HCD 310; HEDD 300, 350; HSER 302; INDIS 313, KINES 300; NUTRI 300; PSYC 340, 353, 356, 360; SOC 310

Physical Education activity (one course) with one of the following prefixes: ADAPT, DANCE, FITNS, PACT, TMACT, SPORT

CSU GRADUATION REQUIREMENT: US HISTORY, CONSTITUTION, AND AMERICAN IDEALS.

NOTE: The CSU requires students to fulfill this requirement prior to completion of a BA or BS degree, and it can be completed at CRC by completion of one of the two 6-unit patterns:

A. One course from HIST 312, 313, 320, 321, 331, or 371, paired with POLS 301
OR
B. One course from HIST 312 or 320, paired with one course from HIST 313, 314, 321, or POLS 304.

Completion of this requirement may double-count for 6 of the 9 units in Area D. See a Counselor to determine the best way for you to fulfill CSU-GE Category D.

NOTE: Courses listed in more than one GE area can only be used to fulfill a single area.

The courses listed here are accurate as of the date of publication of the 2014–2015 Catalog, but are subject to change. Contact or visit the CRC Counseling Center for updated information.
Completion of all of the requirements in the Intersegmental General Education Transfer Curriculum (IGETC) will permit a student to transfer from a community college to a campus in either the CSU or UC 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 fully certified. Each course must be completed with a grade of “C” or better.

**AREA 1 – ENGLISH COMMUNICATION**

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

**UC**
- Two courses required, one each from Area 1A and Area 1B

**AREA 1A: English Composition**
- (one course required), ENGRW 300, 480*, HONOR 375

**AREA 1B: Critical Thinking - English Composition**
- (one course required), COMM 311, 315; ENGRW 301, 302; PHIL 328

**AREA 1C: Oral Communication - CSU ONLY**
- (one course required) COMM 301, 331*, 361*

**AREA 2 – MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING**

(One course required)

- MATH 300, 341*, 344, 350*, 351*, 370*, 400*, 401*, 402*; PSYC 330*; STAT 300*

**AREA 3 – ARTS AND HUMANITIES**

At least 3 courses with at least one from the Arts and one from the Humanities.

9 semester units

**3A ARTS**
- ARTH 300, 303, 307, 309, 311, 312, 324, 325, 326, 332, 333; ARTPH 342; MFS 300, 305*, 320; MUFHL 300*, 308, 310, 311, 315, 321, 330, 400; PHOTO 420; RTVF 305*; TA 300, 302, 303, 306, 322, 323

**3B HUMANITIES**
- ARTH 328, 333; ENGLT 303, 310, 311, 320, 321, 330, 336, 340, 341, 343, 345, 360, 402; ENGRW 301; FMS 488*; GEOG 481*; HIST 364, 365, 380; HONOR 350*, 364, 382*; HUM 300, 301, 310, 320, 324, 331, 332, 484*; PHIL 300, 304, 310, 330, 331, 338, 350, 352, 356, 360; SILA 316; SPAN 411, 412, 413, 415, 425, 426, 427; VIET 411, 412

**AREA 4 – Social and Behavioral Sciences**

At least 3 courses from at least two disciplines, 9 semester units required

- ANTH 310, 316, 323, 324, 331, 332, 334, 341, 347; BUS 345*; COMM 325*, 480; ECE 312*, 314*; ECON 302, 304, 306; GEOG 302, 310, 320, 322, 481*; HIST 301, 302, 307, 308, 312*, 313*, 314*, 320+, 321+, 331+, 344, 360, 364, 365, 370, 371+, 373, 380; HONOR 340*, 382*; HUM 484*; JOUR 310*, 320; POLS 301+, 302, 304, 310, 311, 312, 313, 314, 315, 317, 318, 319, 320, 324; PSYC 300, 320, 335, 340, 353, 356, 360, 368, 371*; RTVF 300*; SILA 330; SOCSOC 300, 320, 325, 330, 360*; SOC 300, 301, 310, 321, 341, TA 306

+ CSU Campuses have discretion to allow these courses to “double count” for Area 4 credit and the CSU U.S. History, Constitution, and American Ideals requirement. Please see your counselor for further information.

**AREA 5 – Physical and Biological Sciences**

2 courses required, one Physical Science course and one Biological Science course, at least one must include a laboratory.

7-9 semester units

**5A PHYSICAL SCIENCE**
- ASTR 300, 400(L); CHEM 305(L)*, 306(L)*, 309(L), 321, 322(L), 400(L), 401(L)*, 420(L), 421(L); GEOG 300, 301(L), 306; GEOL 300*, 301(L)*, 305*, 306(L)*, 310, 311(L)*, 330; PHYS 310*, 350(L)*, 360(L)*, 370(L)*, 380(L)*, 411(L)*, 421(L)*, 431(L)*

**5B BIOLOGICAL SCIENCE**
- ANTH 300, 301(L), 303, 307(L), 310(L)*, 342, 351, 352, 366, 400(L), 410(L), 420(L), 430(L), 431(L), 440(L), 462*, 470; GEOG 305, PSYC 312(L)

(L) Courses designated with an L are Lab Courses

**AREA 6 – Language other than English – UC Requirement only (0-4 units)**

One course (4 semester units)


or

Completion of two years of the same foreign language in high school with “C” or better

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

(not required to complete IGETC)

1) POLS 301 paired with one course from
   HIST 312*, 313*, 320*, 321*, 331, or 371;

2) HIST 312* or 320* paired with one from
   HIST 313*, 314, 321* or POLS 304

Note: Effective beginning Fall 2005, junior and senior transfers may be admitted to CSU campuses with a grade point average of 2.0 in 60 transferable semester units, completion of a minimum of 30 semester units from CSU-GE Breadth (see preceding page), or completion of all IGETC requirements with grades of “C”, “Pass” (“P”), or “Credit” (“Cr”) or better. Transfer students are highly encouraged to see a counselor every semester in preparation for transfer.

*Courses designated with an asterisk have limited transfer credit. Courses listed in more than one GE area can only be used to fulfill a single area. If you are planning to take any of these courses, you should meet with a Counselor to discuss the limitations on transfer credit.

Make sure you meet with a Counselor to identify how to best meet your General Education transfer requirements.

The courses listed here are accurate as of the date of publication of the 2014–2015 Catalog, but are subject to change. Contact or visit the CRC Counseling Center for updated information.
**Transferable courses may or may not satisfy** lower division major preparation, general education, and/or elective requirements. Please meet with a **counselor** for specific transfer course evaluation.

### Accounting
- 301, 311

### Agriculture Business
- 300, 310, 321

### Animal Science
- 300, 301, 305, 306

### Anthropology
- 300, 301, 303, 316, 323, 324, 331, 332, 334, 341, 374

### Architectural Design Technology
- 314*

### Architecture
- 300*, 310*, 320*, 330*, 332*

### Art (ART)
- 300, 301, 304, 305, 312, 320*, 340*, 342*, 343, 350, 351*, 356, 400*, 402, 405, 410, 420*

### Art History (ARTH)
- 300, 301, 303, 305, 307, 309, 311, 312, 324, 325, 328, 332, 333

### Art New Media (ARTNM)
- 324

### Art Photography (ARTPH)
- 301*, 322*, 340*, 342*

### Astronomy

### Business
- 300, 340*, 345*

### Chemistry
- 300, 305*, 306*, 309, 321, 322, 400*, 401*, 420, 421

### Communication Studies
- 301, 311, 315, 321, 325*, 331*, 361*, 363, 480

### Computer Information Science:
- (Core) CISC 310
- (Programming) CISP 300, 310, 350, 360, 370, 371, 400, 401, 405, 430, 440

### Early Childhood Education
- 312*, 314

### Economics
- 302, 304, 306

### Engineering
- 300, 312, 400, 412, 420

### English:
- ENGCW 400*, 410*, 420*, 430*
- ENGLT 303, 310, 311, 320, 321, 330, 336, 340, 341, 343, 345, 360, 402
- ENGW 301, 302, 309, 480*

### English as a Second Language
- ESL 325, ESLW 310*, ESLW 320*, ESLW 340*

### Family and Consumer Science
- 324*

### Film & Media Studies
- 300, 305*, 320, 488*, 489*

### Geography
- 300, 301, 302, 305, 306, 310, 320, 322, 331, 481

### Geology
- 300, 301, 305*, 306*, 310, 311, 330, 390*

### Health Education
- 300

### History

### Honors

### Horticulture
- 300*, 302*, 305*, 306*, 307*

### Human Career Development
- 310

### Humanities
- 300, 301, 310, 320, 324, 331, 332, 484*, 486*

### Journalism
- 310*, 320

### Kinesiology (KINES)
- 300, 330

### Library
- 318*, 325*

### Mathematics
- 300, 315, 341*, 344, 350*, 351*, 357, 370, 400*, 401*, 402*, 410, 420, 483*

### Music:
- MUFHL 300*, 301, 305*, 315, 320, 400*, 401, 410, 411, 420, 421*
- MUIVI 310, 311, 320, 340, 341, 345, 350, 351, 370, 371, 385, 386, 400, 410, 495*
- MUP 310, 320, 321, 330, 350, 353, 357, 360, 422

### Nutrition & Foods
- 300, 310

### Philosophy
- 300, 304, 310, 320, 325, 328, 330, 331, 338, 350, 352, 355, 360

### Photography
- 301*, 302, 312, 320*, 365*, 420*

### Physical Education Activity Courses -
- All Physical Education Activity courses limited to 4 a total of semester units of transfer credit.
  - ADAPT*; DANCE* (except DANCE 410, 411, 412, 413, which are not limited): FITNS*; PACT*; SPORT*; TMACT* (Except DANCE 495, 499, FITNS 495, 499, SPORT 495, 499, PACT 495, 499, TMACT 495, 499, which are not generally UC Transferable)

### Physics
- 310*, 350*, 360*, 370*, 380*, 411*, 421*, 431*

### Plant Science
- 300, 310*, 320

### Political Science
- 301, 302, 304, 310, 311, 312, 313, 314, 315, 317, 318, 319, 320, 324

### Psychology
- 300, 312, 320, 330*, 335, 340, 353, 356, 360, 368, 371

### Radio, Television and Film Production
- 300*, 305*, 315, 378*

### Sign Language Studies
- 305*, 306, 315, 316, 330

### Social Science
- 300, 320, 325, 330, 360*

### Sociology
- 300, 301, 305, 310, 321, 341

### Spanish
- 401*, 402*, 411, 412, 413*, 415, 425, 426, 427

### Statistics
- 300*

### Theatre Arts (TA)

### Theatre Arts Performance (TAP)
- 300, 301, 302, 303, 310, 311, 312, 313, 320, 321, 322, 323, 330, 331, 332, 333, 340, 341, 342, 343, 350, 351, 352, 353

### Vietnamese
- 401, 402, 411, 412
University of California (UC) Course Limitations

What follows is a list of limitations set by the UC on courses that will be accepted for transfer.

**Architectural Design Technology Courses (ADT)**
(Formerly Drafting Technology)
ADT 312 and 314 combined: maximum transferable credit is one course

**Architecture Courses (ARCH)**
Any of the following courses for a maximum of eighteen (18) transfer units can be transferred to the UC, Berkeley College of Environmental Design Programs: ARCH 300, 310, 320, 321, 330 and 332

**Biology Courses (BIOL)**
1. BIOL 300, 307 and 310 combined: maximum transfer credit is one course;
2. No credit for BIOL 300 and 307 if taken after BIOL 400, 420, 430, or 431;
3. No credit for BIOL 310 if taken after BIOL 400
4. No transfer credit for BIOL 462, if taken after BIOL 400

**Chemistry Courses (CHEM)**
1. CHEM 300 (no credit for 300 if taken after 305)
2. CHEM 305, 306, and 400, 401 combined: maximum transfer credit is one series*
3. No transfer credit for CHEM 305 if taken after CHEM 400

**Communication Studies Courses (COMM)**
COMM 325, 331, 361 combined: maximum transfer credit is one course

**Experimental Offering (499)**
See “Variable Topics”

**English** – Creative Writing Courses (ENGCW)
ENGCW 400, 410, 420, or 430 combined: maximum transfer credit is two courses

**English as a Second Language**
ESL 325, ESLW 310, ESLW 320, ESLW 325, ESLW 340: any or all of these courses combined: maximum credit, 8 units

**Geology Courses (GEOL)**
No transfer credit for GEOL 305 or 306, if taken after GEOL 300, 301, 310 or 311

**History Courses (HIST)**
1. HIST 312 and 320 combined: maximum transfer credit is one course
2. HIST 313 and 321 combined: maximum transfer credit is one course

**Honors Courses (HONOR)**
Duplicate credit will not be awarded for both the honors and regular versions of a course. Credit awarded for first course completed with a grade of C or better.

**Horticulture Courses (HORT)**
HORT 305 and 306 combined: maximum transfer credit is one course

**Independent Studies (495)**
See “Variable Topics”

**Math Courses (MATH)**
1. MATH 350, 351, 400, 401, and 402 combined: maximum transfer credit of one series*
2. MATH 341, 350 and 400 combined: maximum transfer credit is one course

**Music Fundamentals, History & Literature Courses (MUFHL)**
MUFHL 300 and 321 combined: maximum transfer credit, is one course

**Physical Education Courses** (excludes Physical Education Theory courses)
A maximum of four (4) semester units of credit can be transferred for all physical education activity courses, which include Adapted Physical Education (ADAPT), Fitness (FITNS), Physical Education Personal Activities (FACT), Physical Education Sports (SPORT), and Physical Education Team Activities (TMACT)

**Physics Courses (PHYS)**
1. No credit for PHYS 310 if taken after PHYS 350, 360, 370, 380, 411, 421 or 431
2. PHYS 350, 360, 370, 380, 411, 421, 431 combined: maximum transfer credit of one series*; deduct credit for duplication of topics

**Psychology Courses (PSYC)**
PSYC 330 and STAT 300 combined: maximum transfer credit is one course

**Spanish Courses (SPAN)**
SPAN 402 and 413 combined: maximum transfer credit is one course

**Special Topics (494)**
See “Variable Topics”

**Statistic Courses (STAT)**
STAT 300 and PSYC 330 combined: maximum transfer credit is one course

*series is defined as a course sequence of two or more courses, for example Chemistry 305 and Chemistry 306 or Physics 411, 421, 431.

**Variable Topics**
These courses are also called “Independent Studies”, “Special Studies”, “Special Topics”, “Field Work”, etc., Credit for variable topics courses is given only after a review of the scope and content of the course by the enrolling UC campus. This usually occurs after transfer and may require recommendations from faculty. Information about internships may also be presented for review, but credit for internships rarely transfers to UC. UC does not grant credit for variable topics courses in Journalism, Photography, Health, Business Administration, Architecture, or Library Departments.
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.

Degree and Certificate Residency Requirements

Students must meet the Los Rios Board residency requirement of 12 units at Cosumnes River College to earn a CRC degree or certificate. To meet the residency requirements in the case of certificates that are less than twelve units, students must take the number required in the certificate at CRC. As long as the units are degree or transfer applicable, they do not all necessarily have to be the specific units required in the award.

Note to Students Interested in Transfer

If you are interested in transferring to a four-year college or university to pursue a baccalaureate degree, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation.

DEGREES

CRC offers Associate in Arts (A.A.), Associate in Arts for Transfer (A.A.T.), Associate in Science (A.S.), and Associate in Science for Transfer (A.S.T.) degrees. Students planning to graduate with an Associate Degree must complete all of the required courses for the major, fulfill general education requirements and complete a sufficient number of electives to meet a minimum of 60 degree-applicable units. Program Degree options are:

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CRC offers a large number of Certificates of Achievement (A), which require 18 units or more, and a large number of Certificates of Proficiency (P), which require less than 18 units to complete. The Certificates of Proficiency have been developed with the assistance of business/industry advisory committees to provide career technical education (CTE) designed for quick training to prepare for jobs that do not require a more lengthy certificate or degree.

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Description of Courses

COURSE NUMBERING SYSTEM

Cosumnes River College adopted a new standardized course numbering system in 2003-2004 which is described below.
The numbers are designed to provide students with general information regarding the focus and intent of courses.

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<th>Numbering</th>
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<td>Courses numbered 300 through 499 are accepted for transfer by state colleges and universities and are intended to meet major, general education, breadth, or elective credit requirements.</td>
</tr>
<tr>
<td>1000</td>
<td>The 1000 number is used for non-credit supervised tutoring.</td>
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What are Prerequisites, Corequisites, & Advisories

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

a) A "Prerequisite" is a course that a student is required to have successfully completed (with a "C" or better) in order to demonstrate current readiness for enrollment in a course or educational program.

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

c) An "Advisory or recommended preparation" means that the student is advised but not required to possess a pre/corequisite class or skill level to enroll in the course.

How to demonstrate that you have met the prerequisite:
To demonstrate that you have met the prerequisite, be prepared at the first class meeting to provide either an unofficial transcript showing the appropriate course work or a copy of the appropriate certificate of completion or license.

Some prerequisites include the phrase "or equivalent." This phrase is used to encourage students who have gained the prerequisite skills through other experiences to discuss proper course placement with a counselor.

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.
# Official Course Prefix
(used in degrees and certificates listed in the catalog)

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<thead>
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<td>Work Experience</td>
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</tbody>
</table>
### Cross-Listed Courses

When a course is listed under two different departments in the catalog, the course is referred to as “cross-listed.” The cross-listed course has identical content under both departments’ catalog listing. If two courses are cross-listed, a student cannot earn credit for both. The student must choose one of the courses to enroll in. Students who are not sure which course of the two courses they should enroll in are encouraged to consult with their counselor. When a cross-listed course is repeatable, the course may be taken (under either name) the total number of times stated in the catalog descriptions of the cross-listed course.

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**Cross-Listed Courses**

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</tr>
</thead>
<tbody>
<tr>
<td>RTVF 378</td>
<td>TA 356 Acting for the Camera / Acting for the Camera I</td>
</tr>
<tr>
<td>SOCSC 360</td>
<td>BUS 345 Law and Society</td>
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<tr>
<td>SOCSC 480</td>
<td>HONOR 370 Honors Seminar in Social Science</td>
</tr>
<tr>
<td>TA 356</td>
<td>RTVF 378 Acting for the Camera I / Acting for the Camera</td>
</tr>
</tbody>
</table>
Cross-Referenced Courses

Some courses are not identical in content but have a significant overlap of content. These courses are referred to as “cross-referenced.” Typically, one of the courses contains the entire content of the other course(s). See detailed note by each set of cross-referenced courses listed below.

1. **BUSTEC 306, Computer Keyboarding:**
   BUSTEC 302, Computer Keyboarding
   BUSTEC 303, Computer Keyboard Formatting
   (BUSTEC 306 is not open to students who have received credit for BUSTEC 302 and 303.)

2. **GEOG 335, Introduction to Geographic Information Systems:**
   GEOG 335.1, Fundamentals of Geographic Information Systems
   GEOG 335.2, Intermediate GIS
   GEOG 335.3, Projects Using GIS
   (GEOG 335 is not open to students who have received credit for GEOG 335.1, 335.2 and 335.3.)

3. **GEOL 305, Earth Science:**
   GEOL 300, Physical Geology
   GEOL 310, Historical Geology
   (GEOL 305 is not open to students who have received credit for GEOL 300 or GEOL 310.)

4. **GEOL 306, Earth Science Laboratory:**
   GEOL 300, Physical Geology
   GEOL 301, Physical Geology Laboratory
   (GEOL 306 is not open to students who have received credit for GEOL 300 or GEOL 301.)
NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. The A.A. in Business Administration degree listed under the Business Program in this Catalog provides the lower division courses that are required for a baccalaureate degree in business, regardless of the area of emphasis. The CRC Associate Degree in Accounting is designed for students wishing to seek employment instead of transfer upon its completion.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.A.—Accounting

CERTIFICATES OF ACHIEVEMENT
Accounting
Accounting, Advanced
Accounting Clerk
Accounting, Taxation

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

Career Opportunities
Accounting Clerk
Accounting Technician
Accountant Trainee
Auditor
Bank Employee/Examiner
Certified Public Accountant
Cost Accountant
Insurance Employment
Revenue Agent (FTB/IRS)
Tax Preparer

Some Career Opportunities may require more than two years of college study.

Bookkeeper for:
Accounts Receivable
Accounts Payable
General Ledger
Full-Charge Bookkeeper

Highlights
- A traditional course of study in Accounting Fundamentals, 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ACCT 301</td>
<td>Financial Accounting</td>
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<td>ACCT 311</td>
<td>Managerial Accounting</td>
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<td>ACCT 341</td>
<td>Computerized Accounting</td>
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<tr>
<td>BUS 340</td>
<td>Business Law (3) or BUS 345</td>
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<td>ACCT 103</td>
<td>Intermediate Accounting - Part I</td>
<td>4</td>
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<tr>
<td>ACCT 104</td>
<td>Intermediate Accounting - Part II</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 111</td>
<td>Cost Accounting</td>
<td>3</td>
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<tr>
<td>ACCT 107</td>
<td>Auditing (3)</td>
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<tr>
<td>ACCT 121</td>
<td>Payroll Accounting (3)</td>
<td></td>
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<tr>
<td>ACCT 125</td>
<td>Federal and State Individual Taxation</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 128</td>
<td>Taxation of Corporations, Partnerships, Estates, and Trusts</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 153</td>
<td>Governmental Accounting (3)</td>
<td></td>
</tr>
<tr>
<td>ACCT 498</td>
<td>Work Experience in Accounting (1-4)</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED: 35

Associate Degree
The Accounting Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF ACHIEVEMENT
Accounting
CODE #1001

REQUIRED PROGRAM .............................................. Units
ACCT 107 Auditing ................................................. 3
ACCT 111 Cost Accounting ................................. 3
ACCT 301 Financial Accounting ............................ 4
ACCT 311 Managerial Accounting ....................... 4
ACCT 341 Computerized Accounting .................... 2
BUS 340 Business Law ......................................... 3
TOTAL UNITS REQUIRED ......................................... 19

1 Business 341 recommended for students intending to enter public accounting professions.

CERTIFICATE OF ACHIEVEMENT
Accounting, Advanced
CODE #1004

This program is designed for a student who wishes to develop advanced levels of accounting skills, but not earn a degree. These requirements match the major requirements of the Accounting Degree, but do not include General Education.

REQUIRED PROGRAM .............................................. Units
ACCT 301 Financial Accounting ............................ 4
ACCT 311 Managerial Accounting ....................... 4
ACCT 341 Computerized Accounting .................... 2
BUS 340 Business Law or
BUS 345 Law and Society ................................. 3
ACCT 104 Intermediate Accounting - Part I .......... 4
ACCT 111 Cost Accounting ................................... 3
A minimum of 4 units from the following: .................. 4
CISA 315 Introduction to Electronic Spreadsheets (2)
CISA 316 Intermediate Electronic Spreadsheets (2)
CISA 320 Introduction to Database Management (1)
A minimum of 7 units from the following: .................. 7
ACCT 107 Auditing (3)
ACCT 121 Payroll Accounting (3)
ACCT 125 Federal and State Individual Taxation (4)
ACCT 128 Taxation of Corporations, Partnerships, Estates, and Trusts (4)
ACCT 153 Governmental Accounting (3)
ACCT 498 Work Experience in Accounting (1-4)
CISA 321 Intermediate Database Management (1)
TOTAL UNITS REQUIRED ......................................... 35

CERTIFICATE OF ACHIEVEMENT
Accounting Clerk
CODE #1419

This Certificate is designed to provide the skills necessary for clerical level positions within an Accounting environment. These positions support Accounting professionals and para-professional positions.

REQUIRED PROGRAM .............................................. Units
ACCT 101 Fundamentals of College Accounting (3) or
ACCT 301 Financial Accounting (4) ......................... 3-4
ACCT 341 Computerized Accounting .................... 2
ACCT 121 Payroll Accounting ................................ 3
CISA 315 Introduction to Electronic Spreadsheets .... 2
CISA 305 Beginning Word Processing ................. 2
BUS 310 Business Communications (3) or
ENGWR 301 College Composition and Literature (3) 3
A minimum of 5 units from the following: ................. 5
BUSTEC 101 Computer Keyboarding: 10-Key (1)
BUSTEC 302 Computer-Keyboarding (2)
BUS 105 Business Mathematics ......................... 3
CISA 316 Intermediate Electronic Spreadsheets (2)
CISA 320 Introduction to Database Management (1)
ACCT 498 Work Experience in Accounting (1-4)
TOTAL UNITS REQUIRED ......................................... 20-21

CERTIFICATE OF ACHIEVEMENT
Accounting, Taxation
CODE #1495

This certificate acknowledges student achievement and proficiency in preparing and reviewing the income tax returns of individuals and business entities together with an understanding of necessary federal and state tax administration compliance requirements that are necessary in the policies of the Internal Revenue Service and the Franchise Tax Board.

REQUIRED PROGRAM .............................................. Units
ACCT 301 Financial Accounting ............................ 4
ACCT 341 Computerized Accounting .................... 2
ACCT 121 Payroll Accounting ................................ 3
ACCT 125 Federal and State Individual Taxation .... 4
ACCT 128 Taxation of Corporations, Partnerships, Estates, and Trusts ......................... 4
ACCT 160 Volunteer Income Tax Assistance .......... 2
A minimum of 2 units from the following: ................. 2
CISA 315 Introduction to Electronic Spreadsheets (2)
CISA 316 Intermediate Electronic Spreadsheets (2)
CISA 320 Introduction to Database Management (1)
CISA 321 Intermediate Database Management (1)
TOTAL UNITS REQUIRED ......................................... 21
ACCOUNTING (ACCT)

ACCT 101
Fundamentals of College Accounting 3 Units
Prerequisite: None
General Education: AA/AS Area II(b)
Hours: 54 hours LEC
This course emphasizes a practical approach to the use of accounts, journals, ledgers, and financial statements. The course is recommended for students who intend to seek employment in a small service or merchandising business and is an excellent preparation course for further study in accounting and business.

ACCT 103
Intermediate Accounting - Part I 4 Units
Prerequisite: ACCT 301 with a grade of “C” or better
Hours: 72 hours LEC
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 both the Financial Accounting Standards (FASB) and International Financial Reporting Standards (IFRS) as authority. This course is not intended for transfer to a four-year college.

ACCT 104
Intermediate Accounting - Part II 4 Units
Prerequisite: ACCT 103 with a grade of “C” or better
Hours: 72 hours LEC
This course is a continuing study of the measurement and reporting of the results of operations and the financial position of business entities. An emphasis is placed on accounting for investments, stockholder’s equity, long-term liabilities, leases and income taxes. This course is not intended for transfer to a four-year college.

ACCT 107
Auditing 3 Units
Prerequisite: ACCT 301 with a grade of “C” or better
Advisory: ACCT 103
Hours: 54 hours LEC
The course focuses on procedures and practices used in the verification of financial statement balances and accounting records. External auditing functions are emphasized. The types of audits and audit occupations, as well as the legal liabilities of the auditor, are discussed.

ACCT 111
Cost Accounting 3 Units
Prerequisite: ACCT 301 with a grade of “C” or better
Advisory: ACCT 311
Enrollment Limitation: Upon entering this course, ACCT 111, the student should be given to (a) analyze the flow of costs to the Income Statement and Balance Sheet, (b) prepare entries for inventories associated with various types of firms including manufacturing, (c) classify costs, and (d) prepare and interpret financial statements under varying cost assumptions.
RATIONALE: These entrance skills, which are taught in ACCT 301, will be built upon in ACCT 111, which is the continuation of the study of accounting. ACCT 111 will focus on cost accounting principles and practices, with a particular emphasis on cost flow and analysis. Accordingly, ACCT 301 is to be required as a sequential prerequisite to lead into this course, ACCT 111.
Hours: 54 hours LEC
This course is an introduction to cost accounting methods, including job order, process and standard cost systems. Special attention will be given to management uses of cost accounting. This course is not intended for transfer to a four-year college.

ACCT 121
Payroll Accounting 3 Units
Prerequisite: None
Advisory: ACCT 101
Hours: 54 hours LEC
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.

ACCT 125
Federal and State Individual Taxation 4 Units
Prerequisite: None
Advisory: ACCT 101 and 301
Hours: 72 hours LEC
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. This course is a California Tax Education Council (CTEC) qualifying education course, and is offered to members of the community to enable them to become registered tax return preparers (CRTF) in the state of California.

ACCT 128
Taxation of Corporations, Partnerships, Estates, and Trusts 4 Units
Prerequisite: ACCT 125 with a grade of “C” or better
Hours: 72 hours LEC
This course provides a continuing study of federal and state income tax compliance with an emphasis on the taxation of business entities including corporations, partnerships, limited liability companies, S corporations, estates and fiduciary trusts. Included is coverage of related party transactions, filing requirements, differences in book and taxable income, tax computation, available credits, tax elections, and working with the Internal Revenue Service on tax administration matters. This course is designed for persons seeking civil service advancement, those who are currently or will be involved with company accounting operations, and persons engaged in tax preparation. It is recommended for accounting majors.
ACCT 153  
Governmental Accounting  
3 Units  
Prerequisite: ACCT 301 with a grade of “C” or better  
Hours: 54 hours LEC  
This course covers accounting and financial reporting for governmental units and institutions with emphasis on the principles of fund accounting and the comprehensive annual financial report as prescribed by the Governmental Accounting Standards Board. Additional topics include governmental budgeting and budgetary controls.

ACCT 160  
Volunteer Income Tax Assistance  
2 Units  
Prerequisite: None  
Advisory: ACCT 125; or equivalent skills demonstrated through the assessment process.  
Hours: 18 hours LEC; 54 hours LAB  
This hands-on course provides training and a service learning opportunity in the preparation of federal and California individual income tax returns. After successfully completing 18 hours of IRS-approved training and passing the IRS individual income tax exam, the student volunteer will provide a minimum of 54 hours of free tax assistance to community clients who meet qualifying criteria for the service as set by the IRS. This course is intended for the volunteer who will assist individual and family taxpayers with basic tax concerns.

ACCT 161  
Volunteer Income Tax Assistance II  
2 Units  
Prerequisite: ACCT 160 with a grade of “C” or better  
Hours: 18 hours LEC; 54 hours LAB  
This hands-on course provides training and a service learning opportunity in the preparation of federal and California individual income tax returns. After successfully completing 18 hours of IRS-approved training and passing the IRS individual income tax exams, the student volunteer will provide a minimum of 54 hours of free tax assistance to community clients who meet qualifying criteria for the service as set by the IRS. This course covers the Advanced level which is intended for the volunteer who will assist individual and family taxpayers with more complex tax concerns.

ACCT 162  
Volunteer Income Tax Assistance III  
2 Units  
Prerequisite: ACCT 161 with a grade of “C” or better  
Hours: 18 hours LEC; 54 hours LAB  
This hands-on course provides training and a service learning opportunity in the preparation of federal and California individual income tax returns. After successfully completing 18 hours of IRS-approved training and passing the IRS individual income tax exams, the student volunteer will provide a minimum of 54 hours of free tax assistance to community clients who meet qualifying criteria for the service as set by the IRS. This course covers the Advanced level which is intended for the volunteer who will assist individual and family taxpayers with more complex tax concerns.

ACCT 295  
Independent Studies in Accounting  
1-3 Units  
Prerequisite: None  
Hours: 18 hours LEC; 54 hours LAB  
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

ACCT 299  
Experimental Offering in Accounting  
.5-4 Units  
Prerequisite: None  
Hours: 18 hours LEC; 54 hours LAB  

ACCT 301  
Financial Accounting  
4 Units  
Prerequisite: None  
Advisory: ACCT 101, BUS 105, MATH 120, or MATH 125  
General Education: AA/AS Area 1(b)  
Course Transferable to UC/CSU  
Hours: 72 hours LEC  
This is the study of accounting as an information system. Emphasis is given to understanding the nature and purpose of accounting and its function in business. The principles and concepts underlying transaction analysis and recording; financial statement preparation, disclosures, and analysis; and ethical issues are addressed. The course includes units on inventories, internal control, cash and cash flows, receivables, fixed and intangible assets, current and long-term liabilities, stockholders’ equity, income tax, and investments. (C-ID ACCT 110)

ACCT 311  
Managerial Accounting  
4 Units  
Prerequisite: ACCT 301 with a grade of “C” or better  
Course Transferable to UC/CSU  
Hours: 72 hours LEC  
This course is the 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. Topics include cost systems, the analysis and use of cost information, cost-volume-profit analysis, contribution margin, profit planning, standard costs, relevant costs, capital budgeting, and statement analysis. (C-ID ACCT 120)

ACCT 341  
Computerized Accounting  
2 Units  
Prerequisite: ACCT 101 or 301 with a grade of “C” or better  
Advisory: CISC 302  
Course Transferable to CSU  
Hours: 27 hours LEC; 27 hours LAB  
This is a course using the computer to prepare financial statements and other accounting reports used in business. This course emphasizes the areas of study: general ledger, accounts payable, accounts receivable, banking, bank reconciliations, depreciation, fixed assets, inventory, job order and payroll. This course provides practical experience using contemporary computerized accounting software. Consult the class schedule for specific software.
ACCT 495
Independent Studies in Accounting 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB

An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

ACCT 498
Work Experience in Accounting 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Accounting.
Course Transferable to CSU
Hours: 300 hours LAB

This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

ACCT 499
Experimental Offering in Accounting .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
DEGREE

A.A. — Advertising/Public Relations

See also:
Desktop Publishing
(Computer Information Science Program)

Program Description
This CRC program is part of CRC’s offerings in Radio, Television and Film Production 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 the Internet, radio, television and print media.

Career Opportunities
Public Information Officer      Community Relations Specialist
Media Consultant                Public Relations Firm Representative

Some Career Opportunities may require more than two years of college study.

Highlights
• Instruction and practice in desktop publishing and graphics applications in the department’s Apple 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
• Internship opportunities working in local media including Advertising Agencies, Public Relations firms, TV and Radio stations, post-production houses, corporate and government employers.

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE

A.A.—Advertising/Public Relations

CODE #1056

REQUIRED PROGRAM................................................................. Units
CISC 302/JOUR 330  Computer Familiarization.................................. 2
RTVF 300/JOUR 310  Mass Media and Society.................................... 3
RTVF 330  Basic Film/Video Camera Techniques............................... 3
RTVF 376/MKT 314  Advertising..................................................... 3
RTVF 370  Broadcast Writing and Announcing................................. 3
JOUR 300  Newswriting and Reporting............................................ 3
JOUR 351  Public Relations Writing & Media Techniques.................... 3
MKT 310  Selling Professionally..................................................... 3
COMM 341  Organizational Communication................................... 3
A minimum of 6 units from the following:...................................... 6
RTVF 301  Introduction to Telecommunication (3)
RTVF 312  Radio Studio Operations (3)
RTVF 316  Introduction to Radio Workshop (3)
RTVF 331  Television Production (3)
RTVF 360  Introduction to Motion Graphics: Adobe After Effects (3)
RTVF 380  Broadcast Journalism (3)
RTVF 498  Work Experience in Radio, Television and Film (1-4)
COMM 301  Introduction to Public Speaking (3)
COMM 363  Introduction to Communication Theory (3)
JOUR 335  Introduction to Desktop Publishing (2)
JOUR 340  Writing for Publication (3)
PHOTO 301  Beginning Photography (3)
PHOTO 320  Color Photography (3)
PHOTO 340  Careers in Photography (3)

TOTAL UNITS REQUIRED .................................................................. 32

Suggested Electives to Consider for fulfilling GE or 60-Unit Degree Requirement:
ACCT 101  Fundamentals of College Accounting
BUSTEC 303  Computer-Keyboard Formatting
BUSTEC 304  Computer-Keyboard Speed-and-Accuracy Building
COMM 315  Persuasion
COMM 494  Topics in Communication
JOUR 400  College Newspaper Production

Associate Degree
The Advertising/Public Relations Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
DEGREE
A.S.—General Agriculture

CERTIFICATE OF PROFICIENCY
General Agriculture

See also:
A.S.—Equine Science

Program Description
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 statewide governmental agencies. It is also a center for international agricultural trade and commerce.

As a General Agriculture major, you will:
• Study a general agriculture curriculum representing all of the departments of the Cosumnes River College agriculture program including: agriculture business, horticulture, welding, veterinary technology and plant science.
• Develop your leadership and communication skills.
• Identify the agricultural career you are most interested in and build a course of study to better qualify you for a profession.

Career Opportunities
Management Supervision
Finance Insurance
Government Marketing
Distribution International Trade
Park Maintenance Landscape Design, Teaching
Communication Trucking & Automotives
Contracting & Maintenance Fertilizer & Insecticide Application
Research Retail/Wholesale
Estimator Consultant
Government Agency employee Welding Technician
Inspection Welding Engineering
Sculpting Home/Handicraft & Hobby
Construction

Sales and Service Nursery Management and Operations

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

Highlights
• The faculty in this program work closely with the five California agricultural degree offering universities to provide a quality transfer program for students interested in agriculture business, management and economics.
• The Sacramento region is fortunate to have some of the best high school agriculture programs in California. The faculty in the CRC Ag program work closely with these feeder schools to articulate coursework and facilitate the successful transition of agriculture students from high school to the university.
• Internships in agriculture are available for students interested in work experience opportunities.

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo
### DEGREE
#### A.S. – General Agriculture

**CODE #1483**

<table>
<thead>
<tr>
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<td>WELD 100</td>
<td>3</td>
</tr>
<tr>
<td>WEXP 498</td>
<td>1-4</td>
</tr>
</tbody>
</table>

Complete one of the following 4 areas of concentration: 6-9

**Agriculture Business**
- AGB 300: Introduction to Agriculture Business (3)
- AGB 330: Agriculture Sales and Communication (3)
- AGB 331: Agriculture Marketing (3)

**Horticulture**
- HORT 305: Plant Identification-Fall Selections (3)
- HORT 312: Plant Propagation (3)

**Landscape**
- HORT 320: Sustainable Landscape Construction (3)
- HORT 324: Sustainable Landscape Maintenance (3)

**Welding**
- WELD 110: Advanced SMAW and Semi-Automatic Process (4)
- WELD 290: Advanced Student Projects (2)

**TOTAL UNITS REQUIRED:** 34 - 37

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1 This major requires that you complete all courses in the required program plus one area of concentration.
2 A minimum of two units required.

**Associate in Science Degree**

The General Agriculture Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

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### CERTIFICATE OF PROFICIENCY
#### General Agriculture

**CODE #1483**

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

<table>
<thead>
<tr>
<th>REQUIRED PROGRAM</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AGB 300</td>
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<td>AGB 310</td>
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<td>ANSC 300</td>
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<td>PLTS 300</td>
<td>3</td>
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</table>

**TOTAL UNITS REQUIRED:** 15
Agriculture Business

DEGREE
A.S.—Agriculture Business

CERTIFICATE OF ACHIEVEMENT
Agriculture Business

Program Description
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 statewide 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 Opportunities

Management Finance
Supervision 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 Sacramento county, the CRC General Agriculture program provides an excellent opportunity for individuals who wish to pursue a career in agriculture, receive a General Agriculture Associate of Science degree, or transfer to CSU or UC.
- The faculty in this program work closely with the five California agricultural degree offering universities to provide a quality transfer program for students interested in agriculture business, management and economics.
- The Sacramento region is fortunate to have some of the best high school agriculture programs in California. The faculty in the CRC Ag program work closely with these feeder schools to articulate coursework and facilitate the successful transition of agriculture students from high school to the university.
- Internships in agriculture are available for students interested in work experience opportunities.

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate's degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.S.—Agriculture Business

CODE #1014

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

REQUIRED PROGRAM.......................................................... Units
AGB 300 Introduction to Agriculture Business.......................... 3
AGB 310 Agriculture Computer Applications......................... 3
AGB 320 Agriculture Accounting....................................... 3
AGB 321 Agriculture Economics....................................... 3
AGB 330 Agriculture Sales and Communication................. 3
PLTS 310/HORT 302 Soils, Soil Management and Plant Nutrition.... 3
ANSC 300 Introduction to Animal Science............................... 3
PLTS 300 Introduction to Plant Science......................... 3
ACCT 301 Financial Accounting.................................... 4
BUS 340 Business Law.................................................. 3
ECON 302 Principles of Macroeconomics.......................... 3
COMM 301 Introduction to Public Speaking.......................... 3

TOTAL UNITS REQUIRED.............................................. 97

Associate Degree
The Agriculture Business Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF ACHIEVEMENT
Agriculture Business
CODE #1014

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

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AGB 300</td>
<td>Introduction to Agriculture Business</td>
<td>3</td>
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<td>AGB 310</td>
<td>Agriculture Computer Applications</td>
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<td>AGB 320</td>
<td>Agriculture Accounting</td>
<td>3</td>
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<td>AGB 321</td>
<td>Agriculture Economics</td>
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<td>AGB 330</td>
<td>Agriculture Sales and Communication</td>
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<td>AGB 331</td>
<td>Agriculture Marketing</td>
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<tr>
<td>PLTS 310/HORT 302</td>
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<td>ANSC 300</td>
<td>Introduction to Animal Science</td>
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<td>PLTS 300</td>
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<td>ACCT 301</td>
<td>Financial Accounting</td>
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<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>ECON 302</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>COMM 301</td>
<td>Introduction to Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED: 40

AGRICULTURE BUSINESS (AGB)

AGB 300
Introduction to Agriculture Business 3 Units
Prerequisite: None
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

AGB 310
Agriculture Computer Applications 3 Units
Prerequisite: None
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces computer use in the workplace with emphasis on agribusiness situations. Computer applications including word processing, 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.

AGB 320
Agriculture Accounting 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
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.

AGB 321
Agriculture Economics 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); CSU Area D2
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

AGB 330
Agriculture Sales and Communication 3 Units
Prerequisite: None
Advisory: COMM 301
Course Transferable to CSU
Hours: 54 hours LEC
This course involves the study of principles and practices of the selling process: selling strategies and approaches, why and how people buy, prospecting, territory management, and customer service. Self-management, communication, and interpersonal skills necessary in developing managerial abilities, leadership qualities, and facilitating teamwork within the agribusiness sector will be explored. Students will gain experience through role-play, formal sales presentations, and job shadowing. The course content is organized to give students an in-depth understanding of the factors and influences that affect the agribusiness industry on a day-to-day basis. Communication, leadership, and management skills are basic tools necessary for future career development within the agribusiness sector, as well as other aspects of life.

AGB 331
Agriculture Marketing 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course is a survey of marketing aspects of the agriculture industry. Students will acquire an overview of the structure and institutional aspects of the marketing system including global agricultural markets. Student projects will include industry studies of the marketing of selected locally grown commodities.

AGB 495
Independent Studies in Agriculture Business 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
AGB 498
Work Experience in Agriculture Business 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Agriculture Business.
Course Transferable to CSU
Hours: 300 hours LAB

This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer.
During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

AGB 499
Experimental Offering in Agriculture Business .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
Program Description
This program offers core courses designed for students enrolled in the Health Information Technology, Medical Assisting, Pharmacy Technician and other Allied Health programs.

Career Opportunities
See Career Opportunities in Health Information Technology and Medical Assisting, and Pharmacy Technician.
Some Career Opportunities may require more than two years of college study.

Highlights
- Included in three degree programs and a variety of career certificates in health care
- Courses taught by certified health care professionals

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate's degree in this major may be different from the requirements needed for the bachelor's degree.

For information about the student learning outcomes for this program, see [www.crc.losrios.edu/pslo](http://www.crc.losrios.edu/pslo)

ALLIED HEALTH (AH)

AH 108
Introduction to Allied Health 1 Unit
Prerequisite: None
Hours: 18 hours LEC
This course provides an introduction to the medical field. Topics include the history of medicine; law and ethics as they pertain to the medical field; confidentiality and reportable incidents; usage of reference materials; and various types of health care delivery systems and allied health careers, including scope of practice. This course is open to all students wishing to explore the health care industry.

AH 110
Medical Language for Health-Care Providers 3 Units
Prerequisite: None
Hours: 54 hours LEC
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 analyzation, 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.

AH 120
Human Disease 3 Units
Prerequisite: None
Corequisite: AH 110 and BIOL 102 (Corequisites may be taken previously. BIOL 100 or 430/431 are also acceptable)
Hours: 54 hours LEC
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.

AH 124
Pharmacology for the Health Care Professional 2 Units
Prerequisite: None
Hours: 36 hours LEC
This course introduces pharmacology, the knowledge of basic pharmacological terminology and concepts, administration, common generic and trade name medications, with an emphasis on the clinical application of pharmacology of the treatment of disease.
AH 295
Independent Studies in Allied Health 1-3 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

AH 299
Experimental Offering in Allied Health .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.S.—Equine Science

Program Description
This program offers courses designed for students in the Agriculture Business, Veterinary Technology, and Equine Science programs.

Career Opportunities
See Career Opportunities in Agriculture Business and Veterinary Technology.

Highlights
Provides an introduction to the livestock industry

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate's degree in this major may be different from the requirements needed for the bachelor's degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.S.—Equine Science
CODE #1633

Equine Science is the study of the principles behind the biology, function, and management of the horse. This program prepares students to develop the skills and knowledge that will help them gain a strong and competitive position in the equine industry.

Many Equine Science graduates aim for a future in horse farm management at breeding facilities, lesson barns, and race and show training stables. Students may also qualify for employment as technologists, consultants, show and race facility managers and staff, high school and community or junior college riding and equine science instructors, government agents, journalists, and sales or service representatives for companies promoting horse feed, health, and care products. Other career opportunities are available through breed associations, humane organizations, agriculture extension services, recreational services, horse publications, and more.

Many of these options require more than two years of college study. Classes beyond the associate degree may be required for career options or to fully prepare students for transfer to a university program.

REQUIRED PROGRAM.......................................................... Units
ANSC 300 Introduction to Animal Science.......................... 3
ANSC 301 Introduction to Equine Science.......................... 3
ANSC 302 Equine Reproduction........................................... 2
ANSC 303 Equine Business Management........................... 3
ANSC 304 Livestock Feeding and Nutrition........................... 3
ANSC 305 Equine Health......................................................... 3
ANSC 306 Basic Equine Handling........................................... 1
ANSC 307 Farrier Science......................................................... 3
AGB 310 Agriculture Computer Applications............................ 3
AGB 320 Agriculture Accounting............................................ 3
AGB 330 Agriculture Sales and Communication (3) or AGB 331 Agriculture Marketing (3)................................. 3
ANSC 498 Work Experience in Animal Science..................... 1-4
TOTAL UNITS REQUIRED....................................................31-34

Associate Degree
The Equine Science Associate in Science (A.S.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
ANIMAL SCIENCE (ANSC)

ANSC 300
Introduction to Animal Science 3 Units
Prerequisite: None
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

ANSC 301
Introduction to Equine Science 3 Units
Prerequisite: None
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 54 hours LEC
A survey of the equine industry including equine evolution, selection, nutrition and feeding, breeding, facilities, handling and health management. Emphasis on sound management practices. This course may include field trips and the instructor may or may not provide transportation.

ANSC 302
Equine Reproduction 2 Units
Prerequisite: None
Course Transferable to CSU
Hours: 32 hours LEC; 12 hours LAB
This course combines the study of basic genetic principles with the study of the anatomical and physiological aspects of reproduction as they relate to equine reproduction, emphasizing genetic principles and reproductive aspects. Artificial insemination, embryo manipulation, and current innovations in productive biotechnology will also be examined. This course may include field trips and off-site laboratories and the instructor may or may not provide transportation.

ANSC 303
Equine Business Management 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
Fundamentals of equine business operations, including taxes, liability, insurance, software, and facility design. The class will emphasize the skills necessary to manage a ranch, barn, stable, boarding, breeding, or training facility. This course may include field trips and the instructor may or may not provide transportation.

ANSC 304
Livestock Feeding and Nutrition 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
The fundamentals of digestion and absorption in both ruminants and non-ruminants are discussed. The nutritive value of feeds as they relate to the formulation of livestock rations will be emphasized including by-product feeding. Includes proper selection, evaluation, and utilization of feeds. This course may include field trips and off-site laboratories and the instructor may or may not provide transportation.

ANSC 305
Equine Health 3 Units
Prerequisite: None
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course introduces the major organ systems of the horse. Emphasis is on preventive maintenance and necessary managerial practices needed to keep the equine athlete, broodmare or family horse in good health.

ANSC 306
Basic Equine Handling 1 Unit
Prerequisite: None
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course offers an introduction to the fundamentals of horse handling, with an emphasis on safety. Course covers identification of equine behavioral patterns, handling skills such as catching, haltering, tying, lunging and round-pen training, and recognizing how human/horse interactions affect equine behavior.

ANSC 307
Farrier Science 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course covers horseshoeing principles and practices, including basic anatomy and physiology of the horse’s limbs and feet, horseshoeing terminology, and guidelines for assessing a proper horseshoeing job. This course focuses on causes, treatment and prevention of common lameness problems.

ANSC 495
Independent Study in Animal Science 1-3 Units
Prerequisite: None
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
ANSC 498
Work Experience in Animal Science  1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Animal Science.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

ANSC 499
Experimental Offering in Animal Science  .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 72 hours LEC
Anthropology
Humanities & Social Science

DEGREE
A.A.-T – Anthropology for Transfer
A.S. – Anthropology

Program Description
Anthropology is the study of humans. Anthropologists study our species throughout time; focusing on our diverse modern culture and cultural adaptations, our biological classification as a species and our inclusion in the Order Primates, and our species past developments, including our first steps to our first civilizations. The goal of Anthropology is to study the similarities and differences in biological and cultural adaptations and features across the globe throughout our human history.

Anthropology is a holistic discipline, which means that anthropologists study all aspects of humans and our behavior. The field of Anthropology has been broken up into four main sub-fields: Cultural Anthropology, Physical Anthropology, Archaeology and Linguistics. Cultural Anthropology is concerned with the study of human culture and its variations across time and space. Physical Anthropologists aim to study our species from a biological perspective—examining our DNA, relationship to our closest animal relatives, the primates and the fossil evidence of our earliest human ancestors. Archaeology is the study of our past, focused specifically on reconstructing past behavior by looking at objects used by past people. Linguistic Anthropologists study human language and communication.

The CRC Anthropology program offers courses that satisfy lower division General Education requirements in both the physical and social sciences. In addition, the program offers an Associate Degree in Anthropology that provides students with a solid foundation in anthropology as well as the standard prerequisites for upper division coursework leading to the baccalaureate degree. Students planning to transfer to a four-year school with a major in Anthropology should consult the lower division requirements at the university they plan to attend.

Career Opportunities
Anthropologists with baccalaureate or graduate degrees work as archaeological technicians or project directors for private, state or federal organizations, museum management, forensic specialists in police departments and crime labs, primatology and zoo curation, teaching, consultant or analyst for private, government or educational institutions, non-profit organizations, information technologies, tourism, public health services, and social work.

DEGREE
A.A.-T – Anthropology for Transfer
A.S. – Anthropology

Program Description
Anthropology is the study of humans. Anthropologists study our species throughout time; focusing on our diverse modern culture and cultural adaptations, our biological classification as a species and our inclusion in the Order Primates, and our species past developments, including our first steps to our first civilizations. The goal of Anthropology is to study the similarities and differences in biological and cultural adaptations and features across the globe throughout our human history.

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Career Opportunities
Anthropologists with baccalaureate or graduate degrees work as archaeological technicians or project directors for private, state or federal organizations, museum management, forensic specialists in police departments and crime labs, primatology and zoo curation, teaching, consultant or analyst for private, government or educational institutions, non-profit organizations, information technologies, tourism, public health services, and social work.

NOTE TO TRANSFER STUDENTS: If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo
**DEGREE**  
**A.A.-T – Anthropology for Transfer**  
Code #1980

**Note to Transfer Students:**  
The Anthropology for Transfer A.A.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

**REQUIRED PROGRAM............................................. UNITS**

**Core Courses:**
- **ANTH 300**  
  Physical Anthropology .................................................. 3
- **ANTH 301**  
  Physical Anthropology Laboratory ....................................... 1
- **ANTH 310**  
  Cultural Anthropology ..................................................... 3
- **ANTH 323**  
  Introduction to Archaeology ............................................. 3
- **STAT 300**  
  Introduction to Probability and Statistics (4) ...................... 3-4
  or  **PSYC 330**  
  Intro Statistics for the Behavioral Sciences (3)

**Anthropology Electives:**
- **ANTH 316**  
  Global Forces in Culture Change (3) ................................. 3
  or  **ANTH 324**  
  World Prehistory (3)
- **or ANTH 331**  
  The Anthropology of Religion (3)
- **or ANTH 332**  
  Native Peoples of California (3)
- **or ANTH 334**  
  Native Peoples of North America (3)
- **or ANTH 341**  
  Introduction to Linguistics (3)
- **or ANTH 374**  
  Birth to Death: The Anthropology of Primate Culture and Behavior (3)

**Science Electives:**
- **GEOL 300**  
  Physical Geology (3) ....................................................... 3-4
  and  **GEOL 301**  
  Physical Geology Laboratory (1)  OR  
  **GEOL 305**  
  Earth Science Laboratory (1)  OR  
  **GEOG 335**  
  Introduction to Geographic Information Systems Applications (3)  OR  
  **PSYC 335**  
  Research Methods in Psychology (3)

**TOTAL UNITS REQUIRED ............................................. 19-21**

**DEGREE TOTAL (INCLUDING GE)............................................. 60**

* Major courses which also fulfill a transfer General Education (GE) requirement (“double-counting”). Please note that there are limitations on double-counting — consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

**Associate in Arts in Anthropology for Transfer Degree**
The Associate in Arts in Anthropology for Transfer (A.A.-T) degree may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Interssegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.

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**DEGREE**  
**A.S. – Anthropology**  
**CODE #1950**

**REQUIRED PROGRAM............................................. Units**

**Fall, Spring or Summer Term**
- **ANTH 300**  
  Physical Anthropology .................................................. 3
- **ANTH 301**  
  Physical Anthropology Laboratory ....................................... 1
- **ANTH 310**  
  Cultural Anthropology ..................................................... 3

**Spring Semester**
- **ANTH 323**  
  Introduction to Archaeology ............................................. 3

**Check with Department for Schedule:**
- **PSYC 330**  
  Introductory Statistics for the Behavioral Sciences (3) .............. 3-4
  or  **STAT 300**  
  Introduction to Probability and Statistics (4)

**A minimum of 9 units from the following: ............................................. 9¹**
- **ANTH 303**  
  Introduction to Forensic Anthropology (3)
- **ANTH 316**  
  Global Forces in Culture Change (3)
- **ANTH 324**  
  World Prehistory (3)
- **ANTH 331**  
  The Anthropology of Religion (3)
- **ANTH 332**  
  Native Peoples of California (3)
- **ANTH 334**  
  Native Peoples of North America (3)
- **ANTH 341**  
  Introduction to Linguistics (3)
- **ANTH 374**  
  Birth to Death: The Anthropology of Primate Culture and Behavior (3)
- **ANTH 495**  
  Independent Studies in Anthropology (1-3)
- **BIOL 350**  
  Environmental Biology (3)
- **BIOL 430**  
  Anatomy and Physiology (5)
- **BIOL 462**  
  Genetics in Contemporary Human Society (3)
- **BIOL 470**  
  Behavioral Biology (3)
- **COMM 325**  
  Intercultural Communication (3)
- **GEOG 310**  
  Human Geography: Exploring Earth’s Cultural Landscapes (3)
- **GEOG 331**  
  Exploring Maps and Geographic Technologies (3)
- **GEOG 335**  
  Introduction to Geographic Information Systems Applications (3)
- **MUFHL 330**  
  World Music (3)
- **NUTR 310**  
  Cultural Foods of the World (3)
- **PHIL 352**  
  Introduction to World Religions (3)
- **PSYC 368**  
  Cross Cultural Psychology (3)
- **SOC 321**  
  Race, Ethnicity and Inequality in the United States (3)

**TOTAL UNITS REQUIRED ............................................. 22-23**

¹ A minimum of 6 of the 9 elective units must come from ANTH courses.

**Suggested Electives:**
- **ARTH 303**
- **ENGLT 340**, **ENGLT 343**
- **ENGWR 300**
- **BIOL 351**
- **GEOG 320**
- **PSYC 320**

**Associate in Science Degree**
The Anthropology Associate in Science (A.S.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
ANTH 300
Physical Anthropology  3 Units
Prerequisite: None
Advisory: Eligibility for ENGWR 300 or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to the science of physical anthropology, and analyzes the human place in nature. This 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 monkeys and apes. Topics covered in this course include: the scientific method, principles and mechanisms of genetics and heredity, geological dating methods, classification of humans and our near relatives, social organization and behavior of living primates, comparative skeletal anatomy of humans and non-human primates. Local field trips may be required.

ANTH 301
Physical Anthropology Laboratory  1 Unit
Prerequisite: None
Corequisite: ANTH 300
Advisory: MATH 100; or equivalent skills demonstrated through the assessment process.
General Education: CSU Area B3; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is an introductory laboratory course designed to provide students with an opportunity to become familiar with the methods of the science of physical anthropology while investigating topics in laboratory and field situations. Topics covered in the course are: the scientific method, sources of biological variation and forces of evolution, human osteology (bone identification), human variation, taxonomy and comparative osteology of the primates, comparative behavior, and the fossil evidence for human evolution. A field trip to the local zoo will be included. This course is designed as a companion course to Anthropology 300 - Physical Anthropology.

ANTH 303
Introduction to Forensic Anthropology  3 Units
Prerequisite: None
Advisory: ANTH 301 or BIOL 100 or BIOL 102, and eligibility for ENGWR 300 or equivalent skills as demonstrated by the assessment process
General Education: AA/AS Area V(b); AA/AS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides an overview of forensic anthropology, which is an applied field of physical anthropology. Forensic anthropologists answer questions of medicolegal significance by applying techniques designed for the analysis of human skeletal remains. This course will focus on the introductory techniques used for human skeletal identification and trauma analysis. This identification will provide understanding of the broader aspects of applied anthropology and its role working with law enforcement agencies, human rights issues as well as ethical considerations.

ANTH 310
Cultural Anthropology  3 Units
Prerequisite: None
Advisory: Eligibility for ENGWR 300 or the equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to the cultures and customs of human groups throughout the world with the aim of understanding how cultures function based on their world views. Topics include subsistence methods, religious belief systems, linguistics, economics, political organization, kinship, gender, marriage and family systems, social stratification, and globalization. This course stresses anthropological concepts such as culture, cultural relativism, holism, ethnocentrism, cross-cultural comparisons, world view, culture change, fieldwork, ethics and theory. A field trip may be required at the discretion of the instructor.

ANTH 316
Global Forces in Culture Change  3 Units
Prerequisite: None
Advisory: Eligibility for ENGWR 300 or the equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
The course will focus on how global forces in culture change have an impact on groups of people within the United States and non-western cultures, such as European colonialism (including the slave trade), minority and indigenous people activism, and a redefinition of male and female roles with migration. The course considers such global forces as modernization, development, trade and finance, tourism, migration and refugees, transnationalism, ethnicity and diasporas, technology and digital media, and tribal cultures. Culture change will be illustrated through various ethnographic examples and includes issues such as women’s issues, AIDS/HIV, underemployment, famine, terrorism, the digital divide, and overpopulation.

ANTH 323
Introduction to Archaeology  3 Units
Prerequisite: None
General Education: AA/AS Area V(b); CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to the concepts, methods and theoretical perspectives employed in the scientific study of archaeology. Emphasis will be placed on how data is retrieved from the archaeological record, and how it can be used to address questions about the development and evolution of human social systems. Topics will include archaeological theory, survey and excavation methods, laboratory analysis, reconstructing past environments, and drawing conclusions about the past from archaeological data. This course will draw upon examples from the New World as well as archaeological examples worldwide. A field trip may be required. (C-ID ANTH 150)
ANTH 324
World Prehistory 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); AA/AS Area V1; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a broad survey of world prehistory, from an archaeological perspective. Patterns of culture change will be examined beginning at the emergence of human culture through the development of domestication of plants and animals, to the development of literate societies capable of recording their own history (in writing). Included are major cultural developments on every continent, emphasizing similarities and differences in the nature and timing of key technological, cultural, and social changes. The course will be focused around several key developments in human societies including the transition out of the last ice age, domestication of plants and animals, the establishment of “complex” societies, and the development of important technologies, including pottery and writing. Methodologies for learning about the past, major archaeological discoveries, important personalities, and contributions to the modern world are discussed in the context of understanding the strengths and limitations of a scientific approach to human prehistory.

ANTH 331
The Anthropology of Religion 3 Units
Prerequisite: None
Advisory: Eligibility for ENGL 300
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a cross-cultural study of the forms and functions of supernatural beliefs and associated rituals in various societies around the world. 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. Students who have already completed ANTH 330 should not enroll in this course.

ANTH 332
Native Peoples of California 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides a study of the many cultures of the different native inhabitants of California from the prehistoric period to the present time. In addition it will cover an introduction to the diversity and complexity of aboriginal California. It includes the environmental adaptation, material culture, social structure, ideology, and response to change. In addition to gaining perspectives on the great diversity of indigenous cultures in California, the student will examine the impact of the other Native, European, Asian and African groups on those cultures as well as the contributions of Native Californians to the cultures of the Americas. A field trip may be required.

ANTH 334
Native Peoples of North America 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introductory survey of traditional Native American societies. The course will describe our understanding of the peoples and cultures of North America and emphasize native ecological adaptations, languages, social organizations, religion, mythologies and world view, and artistic representations. The student will critically examine the impact of tribal nations on each other as well as the interactions between Native Americans and Europeans, Africans, Asians, Pacific Islanders and others. Perspectives on changes in traditional life and Native American’s current position in American society will be included as well as contributions of Native Americans to the cultures of the Americas. A field trip may be required.

ANTH 341
Introduction to Linguistics 3 Units
Prerequisite: None
Advisory: Eligibility for ENGL 300 or the equivalent skills as demonstrated through the assessment process.
General Education: AA/AS Area V(b); CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course explores the role of language in social interaction and world view. It examines minority languages and dialects, bilingualism, literacy and the social motivation of language change through technology, globalization, and colonialism. The student will also be introduced to the analytical techniques of linguistics, the universal structures of language, and the demonstration of their relevance to language in sociocultural issues.

ANTH 374
Birth to Death: The Anthropology of Primate Culture and Behavior 3 Units
Prerequisite: None
Advisory: Eligibility for ENGL 300 or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area V(b); AA/AS Area IV; CSU Area D1; IGETC Area 4A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course will provide an overview of the life cycle of all primates, including humans, from an anthropological perspective. The basic biology behind the human life cycle will be examined and compared to nonhuman primates. Human and nonhuman primate life histories will be examined cross-culturally and will be compared and contrasted in light of their evolution and origins. The class will stress how cultural practices interact and support optimal reproductive behavior. Topics will include gestation and birth, adolescence, mating strategies and group structure, adulthood and senescence.

ANTH 495
Independent Studies in Anthropology 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
ANTH 498
Work Experience in Anthropology  1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Anthropology.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

ANTH 499
Experimental Offering in Anthropology  .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
Architectural Design Technology

Careers & Technology

DEGREE
A.S. – Interior Building Architecture
A.S. – Building Information Modeling (BIM)

CERTIFICATE OF ACHIEVEMENT
Building Information Modeling (BIM)
Interior Building Architecture

See also:
(Listed under the Architecture Program)

Program Description
The Interior Building Architecture Program provides students with a background in Architectural Drafting. 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 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.

The Building Information Modeling (BIM) Program provides students with a background in Computer-Aided Drafting and Design (CADD) and Building Information Modeling (BIM). Students who successfully complete the suggested program will be capable of performing pre-modeling (massing), modeling, and developing drawing documents normally expected of architects, designers, and drafting technicians.

The program is designed to provide job market skills, and college transfer opportunities within the Architectural Design disciplines and/or Construction Management as well as opportunities for students to qualify for employment in a variety of positions within the related industries. Additionally, this program offers opportunities for working professionals to take these courses for professional development to update and improve their skills in the Building Information Modeling field.

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 Opportunities
Architectural Draftspersons
Planning Assistants
Facilities/Space Planner
CADD Technician
Designer/Technicians
CADD Operators
BIM Technician

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

DEGREE
A.S.—Interior Building Architecture
CODE #1086

This Associate Science program utilizes CADD and Building Information Modeling (BIM) software to prepare students for careers in the area of Interior Building Architecture, Architecture, with an emphasis in Architectural Design. Students who successfully complete the suggested program will be capable of performing pre-modeling (massing), modeling, and developing drawing documents normally expected of architects, designers, and technicians. The program is designed to provide job market skills, college transfer opportunities in the Interior Building Architecture, Architecture and/or Construction Management disciplines as well as opportunities for students to qualify for employment in a variety of positions within related industries. Additionally, this program offers opportunities for working professionals to take these courses for professional development to update and improve their skills in the interior building architecture field.

This degree program utilizes CADD and Building Information Modeling software components, such as Revit Architecture, MEP, and Structure to prepare students for careers in Interior Building Architecture, Architecture, Building Information Modeling (BIM), with an emphasis in Architectural Technology field.

REQUIRED PROGRAM.......................................................... Units
ADT 300 Architectural Sketching and Modeling I.................... 3
ADT 302 Architectural Sketching and Modeling II.................. 3
ADT 310 Architectural Computer-Aided Drawing I................. 3
ADT 314 Architectural 3D Modeling.................................... 3
ADT 316 Building Information Modeling (BIM) I................... 3
ADT 318 Building Information Modeling (BIM) II.................. 3
ARCH 329 Architectural Working Drawings......................... 4
CMT 112 Construction Estimating................................. 3

TOTAL UNITS REQUIRED................................................ 25

Associate Degree
The Interior Building Architecture Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
### DEGREE
**A.S.—Building Information Modeling (BIM)**  
**CODE #1973**

This Degree program provides students with a background in Computer-Aided Drafting & Design (CADD) and Building Information Modeling (BIM) for application to the architectural building space and design of buildings, interior space analysis and design to facilitate selection of materials & products promoting energy conservation, ecologically sustainable building space and building design using Green Building/LEED point principles.

**REQUIRED PROGRAM**  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ADT 300</td>
<td>Architectural Sketching and Modeling I</td>
<td>3</td>
</tr>
<tr>
<td>ADT 302</td>
<td>Architectural Sketching and Modeling II</td>
<td>3</td>
</tr>
<tr>
<td>ADT 310</td>
<td>Architectural Computer-Aided Drawing I</td>
<td>3</td>
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<tr>
<td>ADT 314</td>
<td>Architectural 3D Modeling</td>
<td>3</td>
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<tr>
<td>ADT 316</td>
<td>Building Information Modeling (BIM) I</td>
<td>3</td>
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<tr>
<td>ADT 317</td>
<td>Building Information Modeling (BIM) II</td>
<td>3</td>
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<tr>
<td>ADT 318</td>
<td>Building Information Modeling (BIM) III</td>
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<tr>
<td>ADT 319</td>
<td>Building Information Modeling (BIM) IV</td>
<td>3</td>
</tr>
<tr>
<td>ADT 498</td>
<td>Work Experience in Architecture Design Technology</td>
<td>1-4</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED**  
25-28

### CERTIFICATE OF ACHIEVEMENT
**Interior Building Architecture**  
**CODE #1086**

This certificate program utilizes CADD and Building Information Modeling (BIM) software to prepare students for careers in the area of Interior Building Architecture with an emphasis in Architectural Design. Students who successfully complete the suggested program will be capable of performing pre-modeling (massing), modeling, and developing drawing documents normally expected of architects, designers and drafting technicians. The program is designed to provide job market skills and opportunities within the Architectural Design disciplines and/or Construction Management as well as opportunities for students to qualify for employment in a variety of positions within the related industries. Additionally, this program offers opportunities for working professionals to take these courses for professional development to update and improve their skills in the interior building architecture field.

This certificate program utilizes various Building Information Modeling (BIM) software components, such as Revit MEP and Structure to prepare students for careers in Interior Building Architecture, Architecture, Building Information Modeling (BIM), with an emphasis in the Architectural Technology area.

**REQUIRED PROGRAM**  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
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<td>ADT 300</td>
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<td>3</td>
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<td>Architectural Sketching and Modeling II</td>
<td>3</td>
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<tr>
<td>ADT 310</td>
<td>Architectural Computer-Aided Drawing I</td>
<td>3</td>
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<tr>
<td>ADT 316</td>
<td>Building Information Modeling (BIM) I</td>
<td>3</td>
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<tr>
<td>ADT 318</td>
<td>Building Information Modeling (BIM) II</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 320</td>
<td>Architectural Design and Communication I</td>
<td>3.5</td>
</tr>
<tr>
<td>ARCH 321</td>
<td>Architectural Design and Communication II</td>
<td>3.5</td>
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<tr>
<td>CMT 310</td>
<td>Materials of Construction</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED**  
25

### ARCHITECTURAL DESIGN TECH  
(ADT)

**ADT 300**  
Architectural Sketching and Modeling I  
3 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course instructs students from the beginning level of hand sketching, instrument drawing of architectural graphic and digital modeled images. The course is designed for understanding how to draw existing structures, new structures and interior spaces, Green Building Design-Sustainability environments of Interior Building Architecture, Building Information Modeling, and Building Construction. It guides students from hand sketched graphic concepts through digital modeling in formulating project forms, and spaces. A software application, such as SketchUp® will be utilized at the end of the course as the primary tool for the development of framing plans for an introduction to ADT 302 course.

**ADT 302**  
Architectural Sketching and Modeling II  
3 Units  
Prerequisite: None  
Advisory: ADT 300  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course instructs students at an intermediate level of sketching, 3D digital design, Green Building-LEED® (Leadership in Energy and Environmental Design) principles in building design, Green Building-LEED® material certification, selection and application to models, 3D surface modeling and site development. The course is designed to facilitate further development to refining the student’s design and research skills by specifying, certifying, and applying Green Building-LEED® materials and design concept principles to structures, interior architectural elements, site selection and development. A software application such as SketchUp® will be utilized as the primary software to refine and further develop detail concepts and techniques in 3D-digital modeling.
ADT 304
Office & Commercial Space Planning  3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course instructs students at the basic to intermediate level in office, commercial and residential space planning. Titles 24 and general building code requirements. Concepts covered will develop skills in space programming, criteria schematics and matrices, bubble diagrams, space planning and layout, building materials, code requirements and applications to the design model.

ADT 310
Architectural Computer-Aided Drawing I  3 Units
Prerequisite: None
Advisory: ADT 300 and 302
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers the introductory study in Architectural Computer-Aided Drawing/Design with specific emphasis in the architectural field. Course subject areas will include but not be limited to identifying CADD components, working in the Windows environment, creating and saving files, entity geometry, editing features, MLine ‘Styles’, Layer convention properties, text/font ‘Styles’, layering creation, dimensioning and dimension ‘Styles’, Model and Paper Space environments, plotting, and Plot ‘Styles’. The subject content will cover the development of architectural floor plans, foundation plans & foundation ‘details’, electrical plans, subdivision plans and others drawings as they relate to the architectural field of study. Students will learn how to develop professional architectural drawing file documentation through the preparation and plotting (printing) presentation.

ADT 314
Architectural 3D Modeling  3 Units
Prerequisite: ADT 310 and 312 with grades of “C” or better; Under special circumstances, such as prior outside experience, a student may take ADT 314 prior to taking ADT 312 but must obtain the instructor’s permission. These courses are sequential prerequisites for this course.
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 36 hours LEC; 54 hours LAB
This course covers the introduction to 3-dimensional modeling and rendering for building structures and spatial analysis studies, Green Building/LEED® (Leadership in Energy and Environmental Design) material and guidelines application. Course subject areas will include shapes, splines, meshes, light, shadows, models, materials, scene creation, animations, and creating exterior and interior architectural and construction objects with software such as 3ds Max Design®.

ADT 316
Building Information Modeling (BIM) I  3 Units
Prerequisite: None
Advisory: ADT 310 and 312; This course may be taken concurrently with ADT 312.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course instructs students in the beginning level of Building Information Modeling as it relates to parametric building modeling for architectural interiors and building space using software such as AutoDesk’s Revit® Architecture. The content is a first level introduction course to data-generated Parametric Building Modeling for architectural design and drawing, also known as Building Information Modeling (BIM). Professionals in the design/construction field may have work and/or academic experience to waive any pre-requisites.

ADT 317
Building Information Modeling (BIM) III  3 Units
Prerequisite: None
Advisory: ADT 310 and 316; Students’ knowledge and/or skills may be evaluated by the instructor on an individual basis, in lieu of the two Advisory Courses listed.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course instructs students in the beginning level of Building Information Modeling as it relates to parametric modeling and Green Building/LEED® (Leadership in Energy and Environmental Design) for “Building Systems” drawing and design using software such as AutoDesk’s Revit® MEP. The content is a first level introduction course of data-generated Parametric Building Modeling software for Mechanical, Electrical, and Plumbing systems; illustrating how the MEP (Mechanical-Electrical-Plumbing) software drawing designs integrate with Revit® Architecture and/or Revit® Structure.

ADT 318
Building Information Modeling (BIM) II  3 Units
Prerequisite: ADT 316 with a grade of “C” or better; in the event a student demonstrates to the instructor a level of experience equivalent to ADT 316, the student can take the ADT 318 course.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course instructs students to the intermediate level of parametric modeling and management of architectural interiors and exteriors, building space management/design using software such as Autodesk’s Revit®. The content is a second level course introduction to data-generated parametric building modeling document drawing also known as Building Information Management that surpasses pencil and CADD generated architectural drawings.

ADT 319
Building Information Modeling (BIM) IV  3 Units
Prerequisite: None
Advisory: ADT 310 and 316; Students’ knowledge and/or skills may be evaluated by the instructor on an individual basis, in lieu of the two Advisory Courses listed.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course instructs students in the beginning level of Building Information Modeling as it relates to parametric modeling and Green Building/LEED® (Leadership in Energy and Environmental Design) guidelines for structural drawing and design using software such as AutoDesk’s Revit® Structure. The content is a first level introduction course of data-generated Parametric Building Modeling software for Structures; illustrating how the Structure software drawing designs integrate with Revit® Architecture and/or Revit® MEP.

ADT 495
Independent Studies in Architectural Design Technology  1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
ADT 498  
Work Experience in  
Architecture Design Technology  
1-4 Units  
Prerequisite: None  
General Education: AA/AS Area III(b)  
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Architecture Design Technology.  
Course Transferable to CSU  
Hours: 300 hours LAB  
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.  

ADT 499  
Experimental Offering in  
Architecture Design Technology  
.5-4 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.S.—Architecture

CERTIFICATE OF ACHIEVEMENT
Architectural Technology

CERTIFICATE OF PROFICIENCY

Program Description
This program offers students study and job-related experience in architectural drafting, construction techniques, design, rendering, and energy systems as well as opportunities to develop skills necessary for employment in the professional field of architecture. Transfer programs are articulated with California State Polytechnic University at San Luis Obispo and the University of California at Berkeley.

Career Opportunities
Architecture Drafting
Inspection Planning
Construction Administration

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

Highlights
• Participation in architecturally-related events such as the Design Village Competition at Cal Poly San Luis Obispo
• Architecture has been honored by Los Rios Community College District as one of its “Programs of Distinction.”
• Special studies in environmental sustainability and energy conscious design. Participation in the Leading Edge Energy Design Competition and the United States Green Building Council Energy Competition.
• Liaison with professional organizations such as the American Institute of Architects (AIA) and the Construction Specification Institute (CSI)

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate's degree in this major may be different from the requirements needed for the bachelor's degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/slo

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 300, 310, 320, 321, 322, 329, 330, 332, 334
Construction Management Technology 310
Architectural Design Technology 310
Mathematics 400, 401
Physics 411 (UC Berkeley)
Physics 350, 360 (CSU)

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.—Architecture
CODE #1109

The objective of this program is to develop design and job-related skills necessary for entry into the professional field of architecture. The curriculum focuses on development of critical thinking and problem solving abilities as a means to creative thinking. College preparation for a career in architecture spans several disciplines and includes the development of knowledge and competencies in areas such as: architectural history and design; visual communication and drawing; computer drafting and rendering; construction methods and materials; energy systems and an understanding of human needs and sociology as they relate to the built environment.

REQUIRED PROGRAM.......................................................... Units
ARCH 300 Introduction to Design Professions.............................. 2
ARCH 310 History of Architecture............................................. 3
ARCH 320 Architectural Design & Communication I................... 3.5
ARCH 321 Architectural Design & Communication II.................... 3.5
ARCH 322 Architectural Design & Communication III................ 3.5
ARCH 329 Architectural Working Drawings................................ 4
ARCH 330 Design Fundamentals............................................. 3
ARCH 332 Design Awareness.................................................. 3
ARCH 334 Advanced Design in Three Dimensions....................... 3
CMT 310 Materials of Construction.......................................... 3
ADT 310 Architectural Computer-Aided Drawing I..................... 3
TOTAL UNITS REQUIRED.................................................. 34.5

Associate Degree
The Architecture Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF ACHIEVEMENT
Architectural Technology
CODE #1116

REQUIRED PROGRAM ........................................... Units
ARCH 320 Architectural Design and Communication I ............ 3.5
ARCH 330 Design Fundamentals ....................................... 3
ARCH 321 Architectural Design and Communication II ........... 3.5
ARCH 322 Architectural Design and Communication III .......... 3.5
ARCH 332 Design Awareness ....................................... 3
ARCH 329 Architectural Working Drawings ......................... 4
ARCH 334 Advanced Design in Three Dimensions ................. 3
ARCH 310 History of Architecture .................................. 3
CMT 310 Materials of Construction ................................ 3
ADT 310 Architectural Computer-Aided Drawing I .............. 3
TOTAL UNITS REQUIRED ...................................... 32.5

ARCHITECTURE (ARCH)

ARCH 300
Introduction to Design Professions ................................ 2 Units
Prerequisite: None
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 36 hours LEC
This course is a comprehensive study of the professions related to
the built environment including architecture, landscape architecture,
construction management, construction, city and urban planning,
interior design, building inspection, environmental and energy planning.
Guest speakers from various design and construction professions
will engage students in discussions related to their professional
practice and the necessary preparation in education and experience.
Each student will evaluate his/her interest and potential of success
in the areas of his/her choice. The course will include an overview
of architectural history; an introduction to some of the major architects
and their discussion of current issues in the environmental design
professions. Additional topics in the class will include: transfer, licensing
requirements and environmental design vocabulary.

ARCH 302
Introduction to Sustainability in the Built Environment I .... 1.5 Units
Prerequisite: None
Course Transferable to CSU
Hours: 27 hours LEC
This course, along with ARCH 303, is an overview of the process of
green building, covering theory, history, state of the industry, and best
practices. This course can be taken independently or consecutively
with ARCH 303. The course covers various building assessment
systems including LEED, Green Globes, GreenPoint Rated, etc. Topics
include: the background of the green movement; high performance
green and natural building design; green building assessment; the
green building process and ecological design; sustainable sites
including transportation, habitat, landscaping and encouraging
pedestrian environments; building thermal performance and envelope;
mechanical and electrical systems. It is a comprehensive look at an
emerging process for economic and resource sustainability.

ARCH 303
Introduction to Sustainability in the Built Environment II .... 1.5 Units
Prerequisite: None
Course Transferable to CSU
Hours: 27 hours LEC
This course, along with ARCH 302, is an overview of the process of
green building, covering theory, history, state of the industry, and best
practices. This course can be taken independently or consecutively
with ARCH 302. The course covers various building assessment
systems including LEED, Green Globes, GreenPoint Rated, etc. Topics
include: the background of the green movement; high performance
green and natural building design; green building assessment;
the green building process and ecological design; building water
conservation systems; recycling, re-use, waste management and green
material selection; indoor environmental quality including air quality,
daylighting, views and thermal comfort; green construction operations;
built environment commissioning; and economic analysis of green buildings.
It is a comprehensive look at an emerging process for economic and
resource sustainability.

CERTIFICATE OF PROFICIENCY
CODE #1636

The purpose of this certificate is to develop job skills and an
understanding of green strategies for high performance buildings and
livable communities. It is focused at students and professionals in the
fields of architecture; construction; building management; construction
management; building inspection; design technology; landscape;
and planning, who want to acquire a comprehensive knowledge of
an integrated, economic life-cycle approach to the design of the built
environment. It includes study of green rating systems, material choices
and environmental strategies for a livable, sustainable future.

This certificate helps to develop the knowledge base related to
sustainable green buildings and environments for the careers of
Architecture, Construction, Construction Management, Building
Inspection, Horticulture, Landscape Architecture and Architectural
Design Technology.

REQUIRED PROGRAM ............................................. Units
ARCH 302 Introduction to Sustainability in the Built Environment I .............. 1.5
ARCH 303 Introduction to Sustainability in the Built Environment II ........... 1.5
CMT 310 Materials of Construction ................................ 3
ARCH 340 Introduction to Green Buildings I ......................... 3
ARCH 341 Introduction to Green Buildings II ......................... 1.5
A minimum of six (6) units from the following: .................. 6
ARCH 332 Design Awareness (3)
ARCH 334 Advanced Design in Three Dimensions (3)
BIT 150 California Energy Code – Building Energy Efficiency Standards (3)
CONST 294 Topics in Green Building Technology (0.5-4)
ADT 316 Building Information Modeling (BIM) I (3)
ADT 318 Building Information Modeling (BIM) II (3)
BIOL 350 Environmental Biology (3)
BIOL 351 Global Climate Change (3)
GEOG 302 Environmental Studies & Sustainability (3)
GEOG 305 Global Climate Change (3)
GEOG 306 Weather and Climate (3)
ECON 306 Environmental Economics (3)
CHEM 321 Environmental Chemistry (3)
TOTAL UNITS REQUIRED ...................................... 15
ARCH 310
History of Architecture 3 Units
Prerequisite: None
Advisory: Eligibility for ENGWR 101
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 18 hours LEC
This course studies the 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.

ARCH 320
Architectural Design and Communication I 3.5 Units
Prerequisite: None
Advisory: It is recommended that students enrolling in this course should
have either completed a drafting course or ADT 300.
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 27 hours LAB
This course is an introduction to the concepts and processes
associated with two and three-dimensional design. A series of design
projects are used to discover principles and concepts of design while
simultaneously addressing the skills associated with representing
envisioned ideas, objects and environments. This includes the
development of freehand sketching, manual drafting and graphic skills
for communication of analysis and design concepts. Students may also
enroll in ARCH 327 to learn methods for digital construction of design
and drawing projects assigned in ARCH 320.

ARCH 321
Architectural Design and Communication II 3.5 Units
Prerequisite: None
Advisory: It is recommended that students enrolling in this course should
have completed ADT 300 or ARCH 320 or a drafting course, in order
to have abilities at drafting and to understand basic drawing types of
orthographic, paraline and perspective.
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 27 hours LAB
This course is a continuation and development of the content and issues
introduced in ARCH 320 and 321 plus the issues, concepts, processes
and skills pertaining to the analysis and design of architectural form,
space and organizations. A series of design projects are used to
discover principles and concepts of design while simultaneously
addressing the skills associated with representing envisioned ideas,
objects and environments. This includes the development of freehand
sketching, manual drafting, architectural delineation and graphic skills
for communication of analysis and design concepts. Students may also
enroll in ARCH 327 to learn methods for digital construction of design
and drawing projects assigned in ARCH 322.

ARCH 322
Architectural Design and Communication III 3.5 Units
Prerequisite: None
Advisory: It is recommended that students enrolling in this course should
have completed ARCH 320 or ARCH 321 or ARCH 330 in order to have
abilities at design, drafting and to understand basic drawing types of
orthographic, paraline and perspective.
Course Transferable to UC/CSU
Hours: 54 hours LEC; 27 hours LAB
This course is a continuation and development of the content and issues
introduced in ARCH 320 and 321 plus the issues, concepts, processes
and skills pertaining to the analysis and design of architectural form,
space and organizations. A series of design projects are used to
discover principles and concepts of design while simultaneously
addressing the skills associated with representing envisioned ideas,
objects and environments. This includes the development of freehand
sketching, manual drafting, architectural delineation and graphic skills
for communication of analysis and design concepts. Students may also
enroll in ARCH 327 to learn methods for digital construction of design
and drawing projects assigned in ARCH 322.

ARCH 325
Architectural Digital Design and Communication I 2 Units
Prerequisite: None
Corequisite: ADT 302 and ARCH 320
Course Transferable to UC
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
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.

ARCH 326
Architectural Digital Design and Communication II 2 Units
Prerequisite: None
Corequisite: ARCH 321
Course Transferable to UC
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
This course is a continuation and development of the content and issues
introduced in ARCH 325, plus the principles, concepts, methods and
skills pertaining to the digital construction of shadows, digital and
physical model building, entourage and color theory.

ARCH 327
Architectural Digital Design and Communication III 2 Units
Prerequisite: None
Corequisite: ARCH 322
Course Transferable to UC
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
This course is a continuation and extension of the content and issues
introduced in ARCH 325 and ARCH 326, plus the principles, concepts,
methods and skills pertaining to the digital visualization and
communication of quantitative and qualitative information to support
analysis and conceptualization.
ARCH 329
Architectural Working Drawings 4 Units
Prerequisite: None
Advisory: It is advised that students taking this have completed a drafting course or have completed ADT 300 or Arch 321.
Course Transferable to CSU
Hours: 54 hours LEC, 54 hours LAB
This course provides an introduction to residential design and construction documents. Students will design a residence and produce a complete set of architectural working drawings.

ARCH 330
Design Fundamentals 3 Units
Prerequisite: ARCH 320 with a grade of “C” or better
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 45 hours LEC, 27 hours LAB
This course introduces design fundamentals, such as the study of creative problem solving processes, model-making, and three-dimensional design. The course provides theories and concepts pertaining to the analysis and design of architectural form, space and organizations to communicate intended concepts and meaning.

ARCH 332
Design Awareness 3 Units
Prerequisite: None
Advisory: ARCH 320 and 330
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC, 18 hours LAB
This course examines design problems and the environment by providing theories, concepts, processes, studies and skills pertaining to space, form, structure, context, materials, climate, livability and sustainability. The course covers sustainability as determinants that shape and impact the built environment.

ARCH 334
Advanced Design in Three Dimensions 3 Units
Prerequisite: ARCH 332 with a grade of “C” or better
Advisory: ARCH 320 and 330
Course Transferable to CSU
Hours: 54 hours LEC, 18 hours LAB
This course is a continuation of the content in ARCH 332 that emphasizes design process, with a focus on advanced design in terms of three dimensional design and design problems pertaining to the environment. The course studies the theories, concepts, processes and skills pertaining to space, form, structure, context, structure, materials, climate, and livability, as well as sustainability as determinants that shape and impact the built environment.

ARCH 340
Introduction to Green Buildings I 1.5 Units
Prerequisite: None
Course Transferable to CSU
Hours: 27 hours LEC
This course is the study of theory and application of climate, energy use and comfort as determinants of architectural form in small scale buildings. Emphasis is placed on architectural methods and topics related to resource and waste reduction; site analysis; sun access; sun shading; daylighting; lighting for envelope-load dominated buildings; and sound in buildings. The course enhances students’ knowledge base and preparation for design classes, ARCH 332, ARCH 334 and ARCH 341.

ARCH 341
Introduction to Green Buildings II 1.5 Units
Prerequisite: None
Course Transferable to CSU
Hours: 27 hours LEC
This course is the study of theory and application of climate, energy use and comfort as determinants of architectural form in small scale buildings. Emphasis is placed on architectural methods and topics related to indoor and outdoor air quality; history of energy and vernacular architecture; energy sources for buildings; heat transfer and flow for envelope-load dominated buildings; human comfort and performance; site and climate analysis; climate and strategies for buildings; psychrometry; designing for heating and cooling; and heating and cooling systems. The course enhances students knowledge base and preparation for design classes, Arch 332, Arch 334 and 340.

ARCH 495
Independent Studies in Architecture 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC, 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

ARCH 498
Work Experience in Architecture 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Architecture.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student's progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

ARCH 499
Experimental Offering in Architecture .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB

Courses are regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
DEGREES
A.A.-T — Art History for Transfer
A.A.-T — Studio Arts for Transfer
A.A. — Art, Studio Art
A.A. — Art, Design
A.A. — Art, Art History
A.A. — Art-Photo

Program Description
CRC’s art curriculum offers introductory and intermediate level courses in painting, watercolor, digital 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 transfer and employment opportunities as well as professional and personal development for students.

With a choice of acquiring an A.A. degree in one of four areas related to art, the student can tailor the program to their interests. The A.A. degree in Art-History allows the student to focus on the history, theory and research of art products, architecture and artifacts. The A.A. degree in Art-Studio Art is designed for the student wanting to develop their individual skill, ideation and creative processes emphasizing 2-D or 3-D art forms. The A.A. degree in Art-Design allows the student to focus on the application of art skills and the creative process as it relates to the applied arts, e.g. graphic design, product design, architecture, web design, interior design, etc. The A.A. degree in Art-Photo is designed to teach students fine art photography with an emphasis in black and white based processes.

The art faculty is composed of professional artists with diverse specializations encompassing the spectrum of the classes offered.

Career Opportunities
Painter
Ceramist
Illustrator
Digital Publishing Specialist
Museum Gallery Director
Digital Artist
Photographer
Art Historian
Animator
Arts/Design Consultant
Interior Designer
Arts Therapist
Sculptor
Art Instructor
Printmaker
Graphic Designer
Graphic Artist
Museum Curator
Art Buyer
Concept Artist
Appraiser
Industrial Designer
Fashion Designer
Archivist

Some Career Opportunities may require more than two years of college study.

Highlights
• Art faculty who have exhibited regionally, nationally and internationally
• Opportunities to explore artistic pursuits in two- and three-dimensional media using a wide variety of materials and techniques
• Regularly scheduled trips to major museums
• Guest lectures and demonstrations
• New state-of-the-art facility
• Digital cameras and other equipment available for check out

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo
DEGREE
A.A.-T – Art History for Transfer
Code #1983

Note to Transfer Students:
The Art History for Transfer A.A.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

REQUIRED PROGRAM.................................................. UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 303*</td>
<td>Art Survey: Ancient to 14th Century</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 309*</td>
<td>Art Survey: Renaissance to 19th Century</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 311*</td>
<td>Art Survey: Modern Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 300*</td>
<td>Elementary Drawing and Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following: ........................................... 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 328*</td>
<td>Survey of African Art (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ARTH 332*</td>
<td>Asian Art (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ARTH 333*</td>
<td>Introduction to Islamic Art (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following: ........................................... 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 320*</td>
<td>Design: Fundamentals (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ART 304*</td>
<td>Figure Drawing and Composition (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ART 372*</td>
<td>Sculpture (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ART 361*</td>
<td>Printmaking: Survey (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ARTPH 301*</td>
<td>Beginning Photography (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following: ........................................... 3

Choose a minimum of three units from below that were not chosen above.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 312*</td>
<td>Women in Art (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ARTH 328*</td>
<td>Survey of African Art (3)</td>
<td>3 (if not taken above)</td>
</tr>
<tr>
<td>or ARTH 332*</td>
<td>Asian Art (3)</td>
<td>3 (if not taken above)</td>
</tr>
<tr>
<td>or ARTH 333*</td>
<td>Introduction to Islamic Art (3)</td>
<td>3 (if not taken above)</td>
</tr>
<tr>
<td>or ART 301</td>
<td>Digital Drawing and Composition</td>
<td>3</td>
</tr>
<tr>
<td>or ART 304*</td>
<td>Figure Drawing and Composition (3)</td>
<td>3 (if not taken above)</td>
</tr>
<tr>
<td>or ART 372*</td>
<td>Sculpture (3)</td>
<td>3 (if not taken above)</td>
</tr>
<tr>
<td>or ART 361*</td>
<td>Printmaking: Survey (3)</td>
<td>3 (if not taken above)</td>
</tr>
<tr>
<td>or ART 327*</td>
<td>Painting (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED ...................................................................... 21

DEGREE TOTAL (INCLUDING GE).......................................................... 60

* Major courses which also fulfill a transfer General Education (GE) requirement (“double-counting”). Please note that there are limitations on double-counting — consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

Associate in Arts in Art History for Transfer Degree
The Associate in Arts in Art History for Transfer (A.A.-T) degree may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.

DEGREE
A.A.-T – Studio Arts for Transfer
Code #1981

Note to Transfer Students:
The Studio Arts for Transfer A.A.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

REQUIRED PROGRAM.................................................. UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 301*</td>
<td>Beginning Photography (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ART 336*</td>
<td>Watercolor Painting (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ART 327*</td>
<td>Painting (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ARTPH 301*</td>
<td>Beginning Photography (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

List A: Art History Restricted Electives
A minimum of 3 units from the following: ........................................... 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 308*</td>
<td>Ancient to 14th Century (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ARTH 326*</td>
<td>Asian Art (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ARTH 329*</td>
<td>Introduction to Islamic Art (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

List B: Studio Art Restricted Electives
A minimum of 9 units from the following: ........................................... 9

Select three courses, each from a different category listed below

Drawing
ART 304* | Figure Drawing and Composition (3) | 3 |
| or ART 302* | Elementary Drawing and Composition (3) | 3 |

Color Theory
ART 323* | Design: Color Theory (3) | 3 |

Painting
ART 336* | Watercolor Painting (3) | 3 |
| or ART 327* | Painting (3) | 3 |

Printmaking
ART 361* | Printmaking: Survey (3) | 3 |

Sculpture
ART 372* | Sculpture (3) | 3 |

Ceramics
ART 402* | Beginning Clay Sculpture (3) | 3 |

Photography
ARTPH 301* | Beginning Photography (3) | 3 |

TOTAL UNITS REQUIRED ...................................................................... 24

DEGREE TOTAL (INCLUDING GE).......................................................... 60

* Major courses which also fulfill a transfer General Education (GE) requirement (“double-counting”). Please note that there are limitations on double-counting — consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

Associate in Arts in Studio Arts for Transfer Degree
The Associate in Arts in Studio Arts for Transfer (A.A.-T) degree may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.
DEGREE
A.A.—Art, Studio Art
CODE #1267

The A.A. degree in Art-Studio Art is designed for the student wanting to develop their individual skill, ideation and creative process emphasizing 2-D or 3-D art forms.

REQUIRED PROGRAM .................................................................. Units
ART 300 Elementary Drawing and Composition ......................... 3
ART 304 Figure Drawing and Composition ................................. 3
ART 320 Design: Fundamentals ................................................. 3
ART 370 Three-Dimensional Design ....................................... 3

Plus two (2) art history courses selected from: ......................... 6
ARTH 303, 309, 311, 312, 328, 332, 333

Plus four (4) courses from chosen emphasis of 2-D or 3-D art forms: .................................................. 12
ART 301, 302, 305, 312, 324, 327, 330, 336, 337, 338, 361, 362, 364, 372, 402, 404; ARTNM 324; ARTPH 301

TOTAL UNITS REQUIRED ......................................................... 30

Associate Degree
The Art-Studio Art Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

DEGREE
A.A.—Art, Design
CODE #1268

The A.A. degree in Art-Design allows the student to focus on the application of art skills and the creative process as it relates to the applied arts, e.g. graphic design, product design, architecture, web design, interior design, etc.

REQUIRED PROGRAM .................................................................. Units
ART 300 Elementary Drawing and Composition ......................... 3
ART 304 Figure Drawing and Composition ................................. 3
ART 323 Design: Color Theory .................................................... 3
ART 370 Three-Dimensional Design ....................................... 3

A minimum of 6 units from the following: .................................. 6
ART 325 Introduction to Graphic Design (3)
ARTPH 301 Beginning Photography (3)
ARTNM 324 Digital Design (3)
JOUR 335 Introduction to Desktop Publishing (2)
or CISA 330 Desktop Publishing (2)
JOUR 336 Intermediate Desktop Publishing (2)
or CISA 331 Intermediate Desktop Publishing (2)
ART 338 Introduction to Digital Painting I (3)
or ART 301 Digital Drawing and Composition (3)

Art History Electives:
A minimum of 3 units from the following: ................................. 3
ARTH 303 Art Survey: Ancient to 14th Century (3)
ARTH 309 Art Survey: Renaissance to 19th Century (3)
ARTH 311 Art Survey: Modern Art (3)
ARTH 312 Women in Art (3)
ARTH 332 Asian Art (3)

TOTAL UNITS REQUIRED ......................................................... 24

Associate Degree
The Art - Design Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

DEGREE
A.A.—Art, Art History
CODE #1270

The A.A. degree in Art-History allows the student to focus on the history, theory and research of art products, architecture and artifacts.

REQUIRED PROGRAM .................................................................. Units
ARTH 303 Art Survey: Ancient to 14th Century ................................ 3
ARTH 309 Art Survey: Renaissance to 19th Century ................................ 3
ARTH 311 Art Survey: Modern Art .......................................... 3

Plus three (3) courses selected from: ........................................ 9
HUM 300, 310, 320, 332
ARCH 310
ARTH 312, 332

Plus one (1) studio course selected from: ................................. 3
ART 300, 304, 320, 327, 336
ARCH 320

Special Projects: ..................................................................... 2
ART 494 or 499 (0.5-4)

TOTAL UNITS REQUIRED ......................................................... 23

1 Minimum two units required for ART 494 or ART 499

Associate Degree
The Art - Art History Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

DEGREE
A.A. – Art-Photo
CODE #1609

The Art-Photography program is designed to teach students fine art photography with an emphasis in black and white film based processes. Critical analysis, history and current theories in photography are also required.

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 Opportunities: Fine art photographer, gallery worker, museum worker, curator or general photographer.

REQUIRED PROGRAM .................................................................. Units
ARTPH 301 Beginning Photography .......................................... 3
or PHOTO 301 Beginning Photography .................................. 3
ARTPH 310 Intermediate Photography .................................. 3
or PHOTO 310 Intermediate Photography .................................. 3
ARTPH 322 Color Photography ............................................... 3
or PHOTO 320 Color Photography .......................................... 3
ARTPH 314 Large Format Photography .................................. 3
or PHOTO 360 Large Format Photography .............................. 3
ARTPH 342 History of Photography ........................................ 3
or PHOTO 420 History of Photography .....................................
ART 300 Elementary Drawing and Composition ......................... 3
ART 304 Figure Drawing and Composition ................................. 3
or ART 361 Printmaking: Survey ........................................... 3
ARTH 300 Introduction to Art .................................................. 3
ARTPH 340 Alternative Process Photography .......................... 3
or PHOTO 364 Advanced Black and White Photography (3) .... 3
or PHOTO 385 Alternative Process Photography (3) ............... 3

TOTAL UNITS REQUIRED ......................................................... 27

Associate Degree
The Art-Photo Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
ART (ART)

ART 300
Elementary Drawing and Composition 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers the fundamentals of drawing emphasizing the use of line, shape, value, perspective, space, and composition. It introduces and uses various mediums and techniques for drawing. This is a foundation requirement for all art students. Field trips may be required. (C-ID ARTS 110)

ART 301
Digital Drawing and Composition 3 Units
Course Family: Drawing Fundamentals
Prerequisite: None
General Education: AA/AS Area I
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course is designed to address the traditional qualities of creative drawing and the unique properties of drawings produced using computer technology. The course includes problems in observation and expression and the translating of these experiences into graphic terms by exploration of gesture, line, texture, shape, volume, space, perspective, light, and shadow. Field trips may be planned.

ART 302
Elementary Drawing and Composition 3 Units
Prerequisite: ART 300 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This studio course utilizes the skills acquired in ART 300 to pursue more complex problems. The student will initiate and execute a series of related works. (C-ID ARTS 110)

ART 304
Figure Drawing and Composition 3 Units
Course Family: Figure Studies
Prerequisite: ART 300 with a grade of "C" or better
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This studio class offers drawing from the human figure. There will be lectures and discussion on proportion, anatomy, and the relationship of the figure to space and composition. Field trips may be required.

ART 305
Figure Drawing and Composition 3 Units
Prerequisite: ART 304 with a grade of "C" or better
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This studio course offers drawing from the human figure. There will be lectures and discussion on proportion, anatomy, and the relationship of the figure to space and composition. A local field trip to a museum or gallery may be assigned.

ART 312
Portrait Drawing 3 Units
Prerequisite: None
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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.

ART 320
Design: Fundamentals 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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. Field trips may be planned. (C-ID ARTS 100)

ART 323
Design: Color Theory 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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. Field trips may be required.

ART 324
Collage and Assemblage 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course investigates the alteration and creation of a dimensional surface with found and constructed materials. Topics on the history of collage and assemblage and the application of historical and contemporary techniques and concepts provide the impetus for production of works of art. Development of a personal visual language is fundamental to this course. Field trips may be planned.
ART 325
Introduction to Graphic Design 3 Units
Prerequisite: ART 320 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 of traditional and digital tools and the visual language of graphic design. Field trips may be required for this course.

ART 327
Painting 3 Units
Course Family: Painting
Prerequisite: None
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This is an introduction to the tools, materials, and techniques of painting. Coursework includes exercises in light and color theory, description of form, color and spatial development, and composition. Field trips may be required for this course.

ART 328
Painting 3 Units
Course Family: Painting
Prerequisite: ART 327 with a grade of “C” or better
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This is an intermediate studio course for the student who wishes to develop greater technical skills and problem-solving ability in a more independent framework. The student will initiate and execute progressively complex problems and assignments. Field trips may be required for this course.

ART 330
Mural Painting 3 Units
Course Family: Painting
Prerequisite: None
General Education: AA/AS Area I
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a comparative survey of the use of mural painting as an interactive, public art form used throughout the world and across time. This course examines the process of creating a mural painting by analyzing a site, researching, planning, and executing murals in public spaces and working collaboratively with others. Field trips are required to execute the work on location if applicable.

ART 336
Watercolor Painting 3 Units
Course Family: Painting
Prerequisite: None
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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. Field trips may be required for this course.

ART 337
Intermediate Watercolor Painting 3 Units
Course Family: Painting
Prerequisite: ART 336 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This is an intermediate watercolor course. It includes an in-depth study of contemporary methods and concepts in transparent watercolor. Emphasis is given to different approaches to watercolor, as well as composition, technical problems and solutions, and individual style development. Field trips may be required.

ART 338
Introduction to Digital Painting I 3 Units
Course Family: Painting
Prerequisite: None
General Education: AA/AS Area I
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course is an introduction to the tools, materials, and techniques of painting using digital software to create and manipulate images. Coursework includes exercises in light and color theory, description of form, color and spatial development, and composition. The fundamental skills of drawing and painting will be applied to individual portfolio quality projects. Field trips may be planned.

ART 361
Printmaking: Survey 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This is a printmaking survey course which may include relief (wood and linoleum), Intaglio (etching and drypoint), stencil (silkscreening) and monoprint processes. Field trips may be required.

ART 362
Printmaking: Intaglio 3 Units
Prerequisite: None
General Education: AA/AS Area I
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course studies the techniques of Intaglio processes including hard ground etching, soft ground etching, aquatint, drypoint, engraving and/or mezzotint. Field trips are required.

ART 364
Printmaking: Relief 3 Units
Prerequisite: None
General Education: AA/AS Area I
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course presents the techniques of wood and linoleum cutting and printing by hand and by press. Field trips are required.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 370</td>
<td>Three Dimensional Design</td>
<td>3</td>
<td>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. This course may include visits to nearby museums and/or galleries.</td>
</tr>
<tr>
<td>ART 372</td>
<td>Sculpture</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>ART 394</td>
<td>Wheel Thrown Ceramics, Beginning</td>
<td>3</td>
<td>This course is an introductory class in wheel-thrown ceramics. The course will provide students with a broad understanding 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.</td>
</tr>
<tr>
<td>ART 395</td>
<td>Wheel Thrown Ceramics, Intermediate</td>
<td>3</td>
<td>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 treatments.</td>
</tr>
<tr>
<td>ART 396</td>
<td>Wheel Thrown Ceramics, Advanced</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>ART 402</td>
<td>Beginning Clay Sculpture</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>ART 404</td>
<td>Intermediate Clay Sculpture</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>ART 430</td>
<td>Art and Children</td>
<td>3</td>
<td>This is a course that investigates the relationship of children and art emphasizing the three aspects of art: seeing and analyzing visual relationships, developing techniques of producing works of art, and exploring historical and contemporary art objects. The framework for developing art curriculum that is age and grade level appropriate will be outlined. Suggested for recreational leadership, preschool or elementary teachers, and caregivers. Field trips may be scheduled.</td>
</tr>
<tr>
<td>ART 443</td>
<td>Art Gallery Operations</td>
<td>3</td>
<td>This first-semester course involves gallery preparation and maintenance as students learn gallery fundamentals in the visual arts. Included are experiences in planning and installing exhibitions, inventory and maintenance of art, participation in staffing and docent activities, and gallery and student outreach programs. A field trip to a museum or gallery is required.</td>
</tr>
<tr>
<td>ART 494</td>
<td>Topics in Art</td>
<td>.5-4</td>
<td>This course is designed to give students an opportunity to study topics not included in current course offerings.</td>
</tr>
</tbody>
</table>
ART 495
Independent Studies in Art 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

ART 499
Experimental Offering in Art .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB

ART HISTORY (ARTH)

ARTH 300
Introduction to Art 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. Local field trips may be required.

ARTH 303
Art Survey: Ancient to 14th Century 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course traces the developments in art from pre-historic times through the 14th Century. Emphasis will be given to artifacts, architecture, painting, and sculpture. (C-ID ARTH 110)

ARTH 307
Italian Renaissance Art 3 Units
Prerequisite: None
Advisory: ENGWR 301 or 302
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course introduces the visual arts and architecture of Italy in the Renaissance, from Duecento (13th century) through Cinquecento (16th century). Topics include the relationship between the visual arts and culture and artists and their works from the periods and styles known as the Proto-Renaissance, Renaissance, High Renaissance, and Mannerism. Relationships between Italy and other cultures, including New World civilizations, are also made.

ARTH 309
Art Survey: Renaissance to 19th Century 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers the architecture, sculpture, artifacts, painting and graphic art of world cultures, in particular of Western art from the Renaissance period through the 19th Century. This is a required class for art history major students.

ARTH 311
Art Survey: Modern Art 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers diverse art forms including painting, sculpture and architecture in Europe and America from the 19th, 20th, and 21st centuries. Styles discussed will include Neoclassicism, Romanticism, Realism, Impressionism, Post-Impressionism, Symbolism, Art Nouveau and all the major Modern art movements of the 20th century such as Fauvism, Cubism, Expressionism, Dada, Surrealism, American Modernism, Pop Art, Happenings, Conceptual and Installation Art. This class will also cover Post-Modernism, Neo-Expressionism, Video Installations, and Globalization. A field trip to an art museum is required.

ARTH 312
Women in Art 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. ARTH 312 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.

ARTH 324
Art of the Americas 3 Units
Prerequisite: None
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course focuses on the study of the indigenous arts and cultures of the Americas before the arrival of Columbus in the New World. Emphasis is on the Pre-Contact peoples of Meso-America and South America, such as the Aztec, Maya, and Inca cultures, and their contributions to colonial and modern art forms.
ARTH 325
Native American Art History 3 Units
Prerequisite: None
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course studies the arts and culture of Native peoples of North America. It discusses the artistic traditions of native peoples of the Ancient and Eastern Woodlands, the Plains, the Southwest, California, the Northwest Coast, and the Arctic and Subarctic regions as well as examples of contemporary Native American art. Comparisons will be made between individual Native American cultures and between Native and Euro-centric cultures.

ARTH 328
Survey of African Art 3 Units
Prerequisite: None
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C1; CSU Area C2; IGETC Area 3A; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course is an introduction to the art and architecture of Africa in terms of its cultural and philosophical background; its materials and techniques; its aesthetic considerations; and its impact on 20th Century Western art.

ARTH 332
Asian Art 3 Units
Prerequisite: None
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course is an introduction to and comparative survey of the major forms and trends in the arts, architecture and artifacts of Asia from the Neolithic to the contemporary. The role of secular and religious ideas and ideals are examined, the similarities and differences among the cultures are assessed and the contributions to world culture will be appraised to create understanding, appreciation and tolerance. A regional or local field trip may be required.

ARTH 333
Introduction to Islamic Art 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1; CSU Area C2; IGETC Area 3A; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

This is a survey course that studies works of art and architecture produced by artists of Muslim countries and regions from the period of the early caliphates (c. 700) to the heights of the Islamic empires (c. 1700.) It provides fundamental information on the formation of Islamic art, its history and philosophy but also deals with the relationships between the Islamic, Asian, and Western artistic traditions. This course includes but is not limited to visual examples from the Middle East, Iran, India, North Africa and Spain.

ARTH 499
Experimental Offering in Art History .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB

ART NEW MEDIA (ARTNM)

ARTNM 302
Digital Basics for Art New Media 1.5 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 27 hours LAB

This course is an introductory to the digital environment for Art New Media. Topics of Mac OS, digital vocabulary, scanning, saving and file formats will be included. Distinctions between vector, bitmap, and page layout applications will be made using Adobe Illustrator, Adobe Photoshop, Adobe InDesign and/or Painter.

ARTNM 324
Digital Design 3 Units
Prerequisite: None
Advisory: ART 300, ART 320, CISC 302, or JOUR 330
General Education: AA/AS Area I
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB

This course is an introduction to computer-based design using the basic operating principles of Adobe Illustrator. Design skills and the tools of the software application will be applied to produce in individual portfolio of projects.

ARTNM 495
Independent Studies in Art New Media 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB

An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

ARTNM 499
Experimental Offering in Art New Media .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
ART PHOTOGRAPHY (ARTPH)

ARTPH 301
Beginning Photography 3 Units
Same As: PHOTO 301
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course combines lectures with hands-on experience in traditional black and white photography. Students will work primarily with film cameras. 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 covered. The format of the class includes lectures, visual presentations, lab time, a field trip, exams and a portfolio. Students may wish to challenge the prerequisite on the basis of equivalent experience. This course is the same as PHOTO 301, and only one may be taken for credit.

ARTPH 310
Intermediate Photography 3 Units
Same As: PHOTO 310
Prerequisite: ARTPH 301 or PHOTO 301 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is designed to expand on the technical and creative concepts acquired in beginning film photography. Topics of instruction include: exposure and development control, archival printing, introduction to medium and large format photography, studio lighting techniques, and alternative processes. Students will work primarily with film cameras. The class includes lectures, visual presentations, lab time, written tests, and a portfolio. This course is the same as PHOTO 310, and only one may be taken for credit.

ARTPH 314
Large Format Photography 3 Units
Same As: PHOTO 360
Prerequisite: ARTPH 310 or PHOTO 310 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is designed to give students a thorough knowledge of view camera operation in the studio and in the field. Topics of instruction include: view camera movements, exposure techniques, 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, visual presentations, lab time, studio time, and a portfolio. Students are urged to provide their own large format camera. This course is the same as PHOTO 360, and only one may be taken for credit.

ARTPH 322
Color Photography 3 Units
Same As: PHOTO 320
Prerequisite: PHOTO 302 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers the fundamental principles of color photography. Topics of instruction include: color theory, correct exposure, techniques to determine correct color balance, flash exposure for color and printing digital files. Students will work with digital cameras. The class includes: lectures, visual presentations, lab time, written tests, and a portfolio. This course is the same as PHOTO 320, and only one may be taken for credit.

ARTPH 340
Alternative Process Photography 3 Units
Same As: PHOTO 365
Prerequisite: ARTPH 310 or PHOTO 310 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces historical and alternative processes in photography. Topics of instruction include: pin hole photography, handmade cameras, historical photographic processes, enlarging negatives, creating digital negatives and contact printing. Students will also hang a class exhibition. The class includes lectures, visual presentations, lab time, exams, and a portfolio. This course is the same as PHOTO 365, and only one may be taken for credit.

ARTPH 342
History of Photography 3 Units
Same As: PHOTO 420
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides an in-depth study of photography and photographically derived images. The course will focus on the development of the first photograph processes from the nineteenth century to current technologies. The format of the class includes lecture and discussions, visual presentations and a field trip. This course is the same as PHOTO 420, and only one may be taken for credit.
DEGREE
A.A. — Automotive Mechanics Technology

CERTIFICATES OF ACHIEVEMENT
Automotive Mechanics Technology
Automotive Engine Performance
Welding Certificate (see welding)

CERTIFICATES OF PROFICIENCY
Automotive Brakes
Automotive Electrical Systems
Automotive Emission Control
Automotive Engine Repair
Automotive Heating & Air Conditioning
Automotive Suspension & Steering
Automatic Transmissions/Transaxles
Small Engine Repair

Program Description
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’s 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 (916) 691-7391 for specific program information. To enroll in ASSET automotive courses, interested students must first submit an application and be accepted in the ASSET program.

Career Opportunities
Auto Technician
Tune-up & Electrical Specialist
Inventory Controls Manager
Auto/Truck Specialist

Automotive Microcomputer
Programmer & Operator
Field Service/Sales Representative

ASE 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

Highlights
- Weekend courses in Smog Certification and other automotive topics.
- 8-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

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo
Automotive Mechanics Technology

A.A.—Automotive Mechanics Technology
CODE #1028

REQUIRED PROGRAM.................................................. Units
AMT 301 Automotive Service Management.......................... 3
AMT 303 Automotive Electrical & Electronic Systems (4) ........ 3-4
or AMT 371 Ford ASSET Automotive Electrical/ Electronic Systems (3)
AMT 304 Automotive Manual Drive Train and Axles ............ 3
AMT 306 Small Engine Repair (3)................................. 3
or AMT 310 Engine Performance (3)
or AMT 130 Ford ASSET Advanced Automatic Transmission Diagnosis (1.5)
and AMT 131 Ford ASSET Diesel Engine Performance (1.5)
AMT 314 Wheel Alignment................................. 3
AMT 316 Automotive Brakes................................. 3
AMT 320 Automotive Ignition Systems (3)...................... 3-4
or AMT 321 Electronic Control Systems (4)
AMT 322 Engine Repair........................................... 3
AMT 324 Electronic Fuel Injection.................................. 3
AMT 330 Automatic Transmissions/Transaxles............. 3
AMT 332 Automotive Computerized Controls (3)............. 3-5
or AMT 334 Ford Electronic Engine Control (EEC IV and V) (5)
AMT 340 Emission Control Inspection and Repair............. 5'
TOTAL UNITS REQUIRED........................................... 38-42

1 Students completing the Ford ASSET program must also complete AMT 300, 312, 326 and WELD 160. In addition, 5 units of Work Experience and a total of 1000 sponsored work hours must be completed. AMT 301, 306, and 332 are not required in ASSET.

Associate Degree
The Automotive Mechanics Technology Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

General Focus: Courses in the general program are designed to emphasize skills development in efficient diagnosis, maintenance, and repair of the automobile. A wide variety of makes and models of vehicles are used in laboratory practice. Students can enter the General Program in Automotive Mechanics Technology at any semester, Summer, Fall, or Spring. Certificate programs as well as an A.A. degree in Automotive Mechanics Technology are available.

ASSET Focus: Courses in the Ford ASSET program are part of a 2-year sequence of classes designed to prepare people to enter Ford dealerships as automotive technicians. Only Ford products are included in the laboratory portions of these courses. Entry into the program occurs once a year in the Fall semester and students must be sponsored by a Ford or Lincoln Mercury dealership. Students spend 2 years full-time in the program in staggered classroom and work experience segments. The process of application to this program includes taking CRC assessment exams, assembling a job search portfolio, attending a counseling appointment and resume/ interview workshops, interviewing with the ASSET instructor, and obtaining employment with a sponsoring dealership. All courses in the ASSET program are taken from the specific Ford perspective. For more program and application information, call (916) 691-7391.

CERTIFICATE OF ACHIEVEMENT
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 of AA without repeating these courses.

REQUIRED PROGRAM................................. Units
AMT 303 Automotive Electrical & Electronic Systems (4) or AMT 371 Ford Automotive Electrical/Electronic Systems .... 3-4
AMT 306 Small Engine Repair (3) or AMT 322 Engine Repair (3) ........................................... 3
AMT 310 Engine Performance................................. 3
AMT 320 Automotive Ignition Systems (3) or AMT 321 Electronic Control Systems (4) .................. 3-4
AMT 324 Electronic Fuel Injection.......................... 3
AMT 332 Automotive Computerized Controls (3) or AMT 340 Emission Control Inspection and Repair (5) ......... 3-5
TOTAL UNITS REQUIRED........................................ 18-22

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 301 Automotive Service Management...................... 3
AMT 303 Automotive Electrical & Electronic Systems (4) or AMT 371 Ford Automotive Electrical/Electronic Systems .......... 3-4
AMT 304 Automotive Manual Drive Train and Axles ........ 3
AMT 306 Small Engine Repair (3) or AMT 314 Wheel Alignment ........................................... 3
AMT 316 Automotive Brakes................................. 3
AMT 320 Automotive Ignition Systems (3) or AMT 321 Electronic Control Systems (4) .................. 3-4
AMT 322 Engine Repair........................................... 3
AMT 324 Electronic Fuel Injection.......................... 3
AMT 330 Automatic Transmissions/Transaxles............. 3
AMT 332 Automotive Computerized Controls................... 3
AMT 340 Emission Control Inspection and Repair............. 5
TOTAL UNITS REQUIRED........................................ 38-40

CERTIFICATE OF PROFICIENCY
Automotive Brakes
CODE #1029

This curriculum is designed for students interested in seeking employment in the diagnosis and repair of automotive brake systems.

REQUIRED PROGRAM................................. Units
AMT 300 Automotive Fundamentals and Shop Procedures ...... 4
AMT 303 Automotive Electrical & Electronic Systems (4) or AMT 371 Ford Automotive Electrical/Electronic Systems .......... 3-4
AMT 316 Automotive Brakes................................. 3
AMT 332 Automotive Computerized Controls (3) or AMT 334 Ford Electronic Engine Control (EEC IV & V) (5) ...... 3-5
TOTAL UNITS REQUIRED........................................ 13-16
CERTIFICATE OF PROFICIENCY
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 300 Automotive Fundamentals and Shop Procedures ........... 4
AMT 303 Automotive Electrical & Electronic Systems (4) or
AMT 371 Ford Automatic Electrical/Electronic Systems ....... 3-4
AMT 320 Automotive Ignition Systems (3) or
AMT 321 Electronic Control Systems (4) ................................. 3-4
AMT 332 Automotive Computerized Controls (3) or
AMT 334 Ford Electronic Engine Control (EEC IV and V) (5) ... 3-5

TOTAL UNITS REQUIRED ......................................................... 13-17

CERTIFICATE OF PROFICIENCY
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 300 Automotive Fundamentals and Shop Procedures ........... 4
AMT 303 Automotive Electrical & Electronic Systems (4) or
AMT 320 Automotive Ignition Systems (3) or
AMT 322 Engine Repair ......................................................... 3
Plus three (3) units selected from:
Any other Automotive Mechanics Technology course

TOTAL UNITS REQUIRED ......................................................... 13

CERTIFICATE OF PROFICIENCY
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 300 Automotive Fundamentals and Shop Procedures ........... 4
AMT 303 Automotive Electrical & Electronic Systems (4) or
AMT 371 Ford Automatic Electrical/Electronic Systems ....... 3-4
AMT 332 Automotive Heating & Air Conditioning ................. 3
AMT 334 Ford Electronic Engine Control (EEC IV and V) (5) ... 3-5

TOTAL UNITS REQUIRED ......................................................... 13-16

CERTIFICATE OF PROFICIENCY
Automotive Emission Control
CODE #1365

This curriculum is designed for students interested in seeking employment in the diagnosis and repair of Emission Control Systems.

REQUIRED PROGRAM ................................................................. Units
AMT 303 Automotive Electrical & Electronic Systems (4) or
AMT 371 Ford Automatic Electrical/Electronic Systems ....... 3-4
AMT 310 Engine Performance or
AMT 324 Electronic Fuel Injection ......................................... 3
AMT 332 Automotive Computerized Controls (3) or
AMT 334 Ford Electronic Engine Control (EEC IV and V) (5) ... 3-5
AMT 340 Emission Control Inspection and Repair ................. 5

TOTAL UNITS REQUIRED ......................................................... 14-17

NOTE:
1. A current advanced emission control smog license will meet the requirement for AMT 340.
2. ASE (Automotive Service Excellence) Certification in A6, A8, and L1 will meet requirements for AMT 310, 332, 371.
3. No units will be earned for requirements met through licensing or certification exams. In these cases fewer total units are required.
**AUTOMOTIVE MECHANICS TECHNOLOGY (AMT)**

### AMT 130
**Ford ASSET Advanced Automatic Transmission Diagnosis**
1.5 units
Prerequisite: None
Enrollment Limitation: Students taking this course must be enrolled in the Ford Automotive Student Service Education Training (ASSET) program due to prerequisite Ford Motor Company training requirements. Hours: 27 hours LEC
This course is offered to students enrolled in the Ford Automotive Student Service Education Training (ASSET) program. This course provides a review of electronically controlled automatic transmissions and transaxles to include electronic control system theory, hydraulic/mechanical system theory, electronic testing procedures, hydraulic testing procedures, mechanical testing procedures, module programming and configuration, and adaptive shift strategies. Students who successfully complete this course may be eligible for Ford Service Technician Specialty Training (STST) certification.

### AMT 131
**Ford ASSET Diesel Engine Performance**
1.5 units
Prerequisite: None
Enrollment Limitation: Students taking this course must be enrolled in the Ford Automotive Student Service Education Training (ASSET) program due to prerequisite Ford Motor Company training requirements. Hours: 27 hours LEC
This course is offered to students enrolled in the Ford Automotive Student Service Education Training (ASSET) program. This course provides a review of light duty diesel engine performance systems to include diesel engine theory, air induction systems, fuel systems, starting aid systems, emission controls, and exhaust after-treatment systems. Students who successfully complete this course may be eligible for Ford Service Technician Specialty Training (STST) certification.

### AMT 140
**Automotive Service**
1 Unit
Prerequisite: None
Hours: 15 hours LEC; 9 hours LAB
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. Consult class schedule for specific topics being offered.

### AMT 294
**Topics in Automotive Mechanics Technology**
.5-4 Units
Prerequisite: None
Hours: 72 hours LEC
This course covers 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.

### AMT 295
**Independent Studies in Automotive Mechanics Technology**
1-3 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

### AMT 299
**Experimental Offering in Automotive Mechanics Technology**
.5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

### AMT 300
**Automotive Fundamentals and Shop Procedures**
4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 72 hours LEC
A basic study of the mechanical operations of the automobile directed toward the principles and operation of the automotive engine, engine support systems, the drive train, steering, suspension and brakes. Hand tools, shop equipment and shop procedures will be demonstrated to familiarize the students with the automotive industry.

### AMT 301
**Automotive Service Management**
3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course provides a survey of automotive service operations, management strategies, economic importance, regulatory responsibilities, customer relations, and employment opportunities in the automotive service industry.

### AMT 303
**Automotive Electrical & Electronic Systems**
4 Units
Prerequisite: None
Advisory: AMT 300
Course Transferable to CSU
Hours: 45 hours LEC; 81 hours LAB
This course is a study of the fundamental principles of electricity as used by the auto technician. Construction and function of automotive electrical/electronic components and systems will be discussed, including storage batteries, charging and starting systems, lighting, and accessory systems.

### AMT 304
**Automotive Manual Drive Train and Axles**
3 Units
Prerequisite: None
Advisory: AMT 300
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers the principles of operations of automotive power trains, including diagnosis and overhaul techniques of clutches, manual transmission/transaxles, drive lines and differentials.
AMT 305
Survey of Alternative Fueled & Hybrid Vehicles 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course will provide the students with resources and relevant information about the technologies of alternative fueled, electric and hybrid vehicle powertrains, as well as the impacts of their wider application in society. While the course will have a technical component, the larger focus of the course is targeted at both the automotive and non-automotive student. Access to a computer with Internet capabilities will be necessary for this course.

AMT 306
Small Engine Repair 3 Units
Prerequisite: None
Advisory: AMT 300
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course focuses on operation and repair of small four-cycle engines. There is special emphasis placed on design and operation principles of internal combustion engines that support the student’s understanding of automotive engines.

AMT 308
Late Model Car Care and Maintenance 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed for the service technician and late model car owner wishing to perform or schedule car maintenance. This course will provide both men and women with basic automotive repair procedures and a fundamental understanding of how various automotive components and systems work. Use of the owner’s manual, repair orders and other resources will be emphasized along with the development of a preventative maintenance schedule.

AMT 310
Engine Performance 3 Units
Prerequisite: AMT 300 or 306 with a grade of “C” or better
Corequisite: AMT 303 or 371
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers basic principles of the internal combustion engine and its related components, with an emphasis on complete electrical and fuel systems. The course will include the use of advanced types of testing equipment.

AMT 312
Automotive Suspension and Steering 3 Units
Prerequisite: None
Advisory: AMT 300
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
Principles of operation of automotive steering, power steering, frames, springs, exhaust systems, acetylene welding, shock absorbers and tires.

AMT 314
Wheel Alignment 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
An in-depth examination of alignment equipment and different auto manufacturer’s alignment systems. Will cover wheel balancing and front end steering and wheel alignment, diagnosis and repair.

AMT 316
Automotive Brakes 3 Units
Prerequisite: None
Advisory: AMT 300
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers the principles of operation of automotive brakes and anti-lock brake systems, including diagnosis and overhaul techniques of power brake system components.

AMT 320
Automotive Ignition Systems 3 Units
Prerequisite: None
Advisory: AMT 300 and 371
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
A thorough examination of the automotive ignition system, including its function, primary circuit, secondary circuit, diagnosis of electrical troubles, and assembly and repair of equipment including distributorless ignition systems.

AMT 321
Electronic Control Systems 4 Units
Prerequisite: AMT 303 or 371 with a grade of “C” or better
Course Transferable to CSU
Hours: 45 hours LEC; 81 hours LAB
This course is a study of the fundamental principles of electronic systems used by the automotive technician. Construction and function of automotive electronic components and systems will be discussed, including general system diagnosis, advanced lighting circuits, driver information systems, vehicle communication networks and electronic accessory systems.

AMT 322
Engine Repair 3 Units
Prerequisite: None
Advisory: AMT 300 and 306
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course focuses on 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.
AMT 324  
**Electronic Fuel Injection**  3 Units  
Prerequisite: AMT 303 or 371 with a grade of “C” or better  
Corequisite: AMT 310  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course focuses on the theory of operation, service, diagnostic procedures and repair of electronic fuel injection systems. This course includes the various types of electronic fuel injection systems and the diagnostic equipment currently used in the automotive industry. In addition, also covered in this course are the theory of operation and service of special equipment such as super-chargers and turbo-chargers.

AMT 326  
**Automotive Heating and Air Conditioning**  3 Units  
Prerequisite: None  
Corequisite: AMT 303 or 371  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
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.

AMT 328  
**Diesel Engines**  3 Units  
Prerequisite: None  
Advisory: AMT 300  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course introduces the student to the theory and operation of diesel engines used in the automotive industry. This course also introduces the student to the diagnosis and repair of light duty and automotive diesel engines.

AMT 330  
**Automatic Transmissions/Transaxles**  3 Units  
Prerequisite: None  
Advisory: AMT 300 and 304  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course is a study of the fundamentals and theory of automatic transmissions/transaxles. The laboratory experience will include inspection, diagnosis and adjustments.

AMT 332  
**Automotive Computerized Controls**  3 Units  
Prerequisite: AMT 303 or 371 with a grade of “C” or better  
Corequisite: AMT 310  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course focuses on the study of automotive computerized controls and their application to the engine, chassis and braking systems. Students will learn how on board computers interact with modern vehicle systems.

AMT 334  
**Ford Electronic Engine Control (EEC IV and V)**  5 Units  
Prerequisite: None  
Advisory: AMT 332 or 371, enrollment in the ASSET Program.  
Course Transferable to CSU  
Hours: 90 hours LEC  
This is an advanced course specializing in Ford Electronic Engine Controls.

AMT 336  
**Advanced Service Management**  3 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course is a thorough examination of automotive service management. The course includes strategic planning, financial analysis, personnel management, and automotive service legal responsibilities.

AMT 340  
**Emission Control Inspection and Repair**  5 Units  
Prerequisite: None  
Corequisite: AMT 324 and 332; AMT 334 is taught in our Ford ASSET program and is equivalent to AMT 332. Current ASE certification in A-6 and A-8 meet equivalency for enrollment in AMT 340 per State of California, Bureau of Automotive Repair Statute.  
Course Transferable to CSU  
Hours: 72 hours LEC; 54 hours LAB  
This course includes inspection, testing, diagnosis, and service of automotive emission control systems. The course is required for all students who plan to become licensed as an Emission Control Inspector. Upon successful completion of this course, students are eligible to take the State of California, Emission Control Licensing Exam, and may be eligible to take the State of California, Repair Only License Exam.

AMT 370  
**Ford ASSET Automotive Fundamentals and Dealership Practices**  4 units  
Prerequisite: None  
Enrollment Limitation: Students taking this course must be enrolled in the Ford Automotive Student Education Training (ASSET) program. Some training materials utilized in this course require access to restricted Ford Motor Company websites obtained via enrollment in the Ford Automotive Student Education Training (ASSET) program and is equivalent to AMT 332. Current ASE certification in A-6 and A-8 meet equivalency for enrollment in AMT 340 per State of California, Bureau of Automotive Repair Statute.  
Course Transferable to CSU  
Hours: 72 hours LEC  
This course is offered to students enrolled in the Ford Automotive Student Service Education Training (ASSET) program. This course provides an introduction into the theory and operation of major automotive systems including: gasoline engines, electrical systems, transmissions and drivetrains, steering, suspension, and brakes. Common automotive hand tools, power tools, and equipment will also be introduced and demonstrated to familiarize students with a typical automotive shop. Typical new-car dealership hierarchy and structure along with standard practices will be investigated. Students who successfully complete this course may be eligible for Ford Service Technician Specialty Training (STST) certification.
AMT 371
Ford ASSET Automotive Electrical/Electronic Systems (formerly AMT302: Ford Automotive Electrical/Electronic Systems) 3 units
Prerequisite: None
Enrollment Limitation: Students taking this course must be enrolled in the Ford Automotive Student Service Education Training (ASSET) program due to prerequisite Ford Motor Company training requirements.
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
This course is offered to students enrolled in the Ford Automotive Student Service Education Training (ASSET) program. This course is a study of the fundamental principles of electricity and electronic systems as used by the automotive technician. Construction and function of automotive electrical and electronic components will be discussed, including batteries, starting systems, charging systems, lighting systems, and power accessories. Students who successfully complete this course may be eligible for Ford Service Technician Specialty Training (STST) certification.

AMT 372
Ford ASSET Automotive Brake Systems 3 units
Prerequisite: None
Enrollment Limitation: Students taking this course must be enrolled in the Ford Automotive Student Service Education Training (ASSET) program. Some training materials utilized in this course require access to restricted Ford Motor Company websites obtained via enrollment in the Ford Automotive Student Service Education Training (ASSET) program and establishment of a Ford/Lincoln dealership sponsorship.
Course Transferable to CSU
Hours: 36 hours LEC, 54 hours LAB
This course is offered to students enrolled in the Ford Automotive Student Service Education Training (ASSET) program. This course covers the theory, diagnosis, and repair of automotive brake systems, including anti-lock braking systems (ABS). Students who successfully complete this course may be eligible for Ford Service Technician Specialty Training (STST) certification.

AMT 495
Independent Studies in Automotive Mechanics Technology 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC, 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

AMT 498
Work Experience in Automotive Mechanics Technology 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Automotive Mechanics Technology.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student's progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

AMT 499
Experimental Offering in Automotive Mechanics Technology .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC, 54 hours LAB
DEGREE
A.S. — Biology
A.S. — Biology: Health Science/Pre-Professional Option
A.S. — Biology: Pre-Nursing Option

Program Description
CRC's Biology program offers courses which satisfy general education requirements in Life Sciences, are prerequisites for a degree in Veterinary Technology, Medical Assisting, and Health Information 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 and veterinary medicine among others.

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 Opportunities
Nursing
Physical Therapy
Physician's Assistant
Wildlife Biology
Pharmacy
Dentistry
Optometry
Nutrition
Respiratory Therapy
Microbiology
Teaching
Marine Biology
Medicine
Veterinary Medicine
Research
Sonography

Some Career Opportunities require more than two years of college study. Classes beyond the associate degree may be required for some Career Opportunities or to fully prepare students 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
• Field studies classes

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate's degree in this major may be different from the requirements needed for the bachelor's degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

Field Study Classes
at Cosumnes River College
Nature is often the best classroom!
Come learn outside in Cosumnes River College's field study courses. These classes consist of short classroom sessions followed by extended trips to some of the most unique and beautiful environments in California, including Big Sur, Monterey Bay, Mt. Lassen, Point Reyes, Yosemite and more! These short-term classes are offered by several departments, including Biology, Geography, Geology and Photography. For more information about specific classes, consult the class schedule or contact each department.

DEGREE
A.S. - Biology: Biology Concentration Option
CODE #1451

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
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<tbody>
<tr>
<td>BIOL 400</td>
<td>Principles of Biology</td>
<td>5</td>
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<tr>
<td>BIOL 410</td>
<td>Principles of Botany</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 420</td>
<td>Principles of Zoology</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 401</td>
<td>General Chemistry</td>
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</tr>
<tr>
<td>MATH 350</td>
<td>Calculus for the Life and Social Sciences I</td>
<td>6-10</td>
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<tr>
<td>or MATH 400</td>
<td>Calculus I</td>
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<tr>
<td>and MATH 401</td>
<td>Calculus II</td>
<td>5</td>
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<tr>
<td>PHYS 350</td>
<td>General Physics</td>
<td>8-12</td>
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<tr>
<td>or PHYS 360</td>
<td>General Physics</td>
<td>4</td>
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<tr>
<td>and PHYS 370</td>
<td>Introductory Physics - Mechanics and Thermodynamics</td>
<td>5</td>
</tr>
<tr>
<td>and PHYS 380</td>
<td>Introductory Physics - Electricity and Magnetism, Light and Modern Physics</td>
<td>5</td>
</tr>
<tr>
<td>or PHYS 411</td>
<td>Mechanics of Solids and Fluids</td>
<td>4</td>
</tr>
<tr>
<td>and PHYS 421</td>
<td>Electricity and Magnetism</td>
<td>4</td>
</tr>
<tr>
<td>and PHYS 431</td>
<td>Heat, Waves, Light and Modern Physics</td>
<td>4</td>
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</tbody>
</table>

TOTAL UNITS REQUIRED: 39-47

1 It is important to check with a counselor as transfer schools vary widely in terms of the required courses.

Associate Degree
The Biology: Biological Sciences, Biology Concentration Option Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
DEGREE
A.S. Biology: Health Science/Pre-Professional Option

REQUIRED PROGRAM........................................................... Units
BIOL 400 Principles of Biology ........................................... 5
BIOL 410 Principles of Botany ........................................... 5
BIOL 420 Principles of Zoology ........................................... 5
CHEM 400 General Chemistry ........................................... 5
CHEM 401 General Chemistry ........................................... 5
CHEM 420 Organic Chemistry ........................................... 5
CHEM 421 Organic Chemistry ........................................... 5
MATH 350 Calculus for the Life and Social Sciences I (3)......... 6-10
  and MATH 351 Calculus for the Life and Social Sciences II (3)
  or MATH 400 Calculus I (5)
  and MATH 401 Calculus II (5)
PHYS 350 General Physics (4) ........................................... 8-12^1
  and PHYS 360 General Physics (4)
  or PHYS 370 Introductory Physics - Mechanics and
    Thermodynamics (5)
  and PHYS 380 Introductory Physics - Electricity and
    Magnetism, Light and Modern Physics (5)
  or PHYS 411 Mechanics of Solids and Fluids (4)
  and PHYS 421 Electricity and Magnetism (4)
  and PHYS 431 Heat, Waves, Light and Modern
    Physics (4)

TOTAL UNITS REQUIRED.................................................. 49-57

^1 It is important to check with a counselor as both transfer schools and professional schools vary widely in terms of the required courses.

Associate Degree
The Biology: Biological Sciences, Health Science/Pre-Professional Option Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

DEGREE
A.S. - Biology: Pre-Nursing Option

REQUIRED PROGRAM........................................................... Units
BIOL 440 General Microbiology ........................................ 4^1
BIOL 430 Anatomy and Physiology .................................... 5
BIOL 431 Anatomy and Physiology .................................... 5
CHEM 305 Introduction to Chemistry (5) ............................ 5-10
  and CHEM 306 Introduction to Chemistry (5) ..................... 5-10
  or CHEM 309 Integrated General, Organic, and
    Biological Chemistry (5)
NUTRI 300 Nutrition ..................................................... 3
FCS 324 Human Development: A Life Span ....................... 3
PSYC 300 General Principles (3) ..................................... 3
  or PSYC 320 Social Psychology (3)

TOTAL UNITS REQUIRED.................................................. 28-33

^1 This degree is designed for students intending to transfer to a nursing program at a 4-year college or university. It does not prepare the student for immediate employment as a nurse. Students earning a nursing degree will need to complete several lower division nursing classes after transferring.

Associate Degree
The Biology: Biological Sciences, Pre-Nursing Option Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

BIOLOGY (BIOL)

BIOL 100 Introduction to Concepts of Human Anatomy and Physiology 3 Units
Prerequisite: None
General Education: AA/AS Area IV
Hours: 54 hours LEC

This introductory course provides an overview of the basic anatomy and physiology of all body systems. It is designed as a non-transferable course for the Medical Assisting Programs and other related programs, and may be useful for other health-related technologies and for strengthening or developing a vocabulary in human anatomy and physiology.

BIOL 102 Essentials of Human Anatomy and Physiology 4 Units
Prerequisite: None
General Education: AA/AS Area IV
Hours: 54 hours LEC; 54 hours LAB

This introductory course provides an overview of the basic anatomy and physiology of all body systems. It is designed as a non-transferable course and meets the minimum requirements for Medical Assisting, Health Information Technology, Emergency Medical Technician, Pharmacy Technology, Licensed Vocational Nursing, and other health-related technologies. It is also useful for strengthening or developing a vocabulary in human anatomy and physiology.

BIOL 295 Independent Studies in Biology 1-3 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB

An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

BIOL 299 Experimental Offering in Biology .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

BIOL 300 The Foundations of Biology 3 Units
Prerequisite: None
Advisory: ENGRD 312 and ENGWR 101; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B

Course Transferrable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC

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.
Biology of Organisms

Prerequisite: None
Advisory: ENGRD 312 and ENGWR 101; or equivalent skills demonstrated through the assessment process.

General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B

Course Transferable to UC/CSU
See UC Limitations & Counselor

Hours: 54 hours LEC; 54 hours LAB

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.

General Biology

Prerequisite: None
Advisory: ENGRD 312 and ENGWR 101; or equivalent skills demonstrated through the assessment process.

General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B

Course Transferable to UC/CSU
See UC Limitations & Counselor

Hours: 54 hours LEC; 54 hours LAB

This is a survey of biological science with an emphasis on human biology. Topics covered include scientific inquiry, cell structure, transmission and molecular genetics, major organ systems, evolution, and ecology. Major biological principles are explored in each topic, but an emphasis is placed on human issues. The laboratory activities are designed to further investigate and illuminate each topic area. This course is intended for non-science majors.

The New Plagues: New and Ancient Infectious Diseases Threatening World Health

Prerequisite: None
Advisory: ENGRD 312 and ENGWR 101; or equivalent skills demonstrated through the assessment process.

General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B

Course Transferable to UC/CSU

Hours: 54 hours LEC

This course will cover general biological concepts and the epidemiology and pathology of selected pathogens such as prions, viruses, bacteria, protozoa, and helminthes threatening public health on a global scale. The course explores the influence of human behavior and activities on the emergence of new infectious agents and the re-emergence of ancient plagues.

Environmental Biology

Prerequisite: None
Advisory: ENGRD 312 and ENGWR 101; or equivalent skills demonstrated through the assessment process.

General Education: AA/AS Area IV; CSU Area B2

Course Transferable to UC/CSU

Hours: 54 hours LEC

This course provides 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. This course is especially useful for Environmental Science, Ecology, Recreation, and Political Science majors. Field trips, attendance at public meetings and/or a semester project may be required.

Global Climate Change

Same As: GEOG 305

Prerequisite: None
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B

Course Transferable to UC/CSU

Hours: 54 hours LEC

This interdisciplinary course explores the natural and human factors causing the Earth's climate to change. Whether alarmed, skeptical, or just curious about climate change, this course will provide the scientific tools to analyze the evidence that climate change is a looming threat. Through lectures, readings, discussions and projects, students will examine the Earth's present and past climates as well as the influence of climate on the geographical distribution of plants, animals and human societies. This course is the same as GEOG 305, and only one may be taken for credit.

Conservation Biology

Prerequisite: None
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B

Course Transferable to UC/CSU

Hours: 54 hours LEC

This introductory course covers biological and ecological principles involved in understanding and analyzing environmental problems and exploring scientifically sound conservation techniques. Major topics include the nature of science, basic principles of ecology, genetics and evolution, patterns of biodiversity and extinction, and the interdependence between humans and our environment. This course places emphasis on scientific processes and methodology and the application of science to conservation issues. Field trips and/or a semester project may be required.
BIOL 366
Introduction to Toxicology: The Biology and Chemistry of Poisons 3 Units
Prerequisite: None
Advisory: ENGRD 312 and ENGWR 101; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides an overview of the biology of natural and man-made toxic substances. It will provide an introduction to physiological and environmental processes and will cover a breadth of biological principles, from cell biochemistry to ecology. The course will employ case studies to analyze how the scientific method is used to discover how toxic substances affect individuals, populations, and ecosystems.

BIOL 390
Natural History Field Study .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 24 hours LEC; 144 hours LAB
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 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.

BIOL 400
Principles of Biology 5 Units
Prerequisite: [Chem 400 OR Chem 305] AND Intermediate Algebra (Math 120 or Math 125 or equivalent skills demonstrated through the assessment process)
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 108 hours LAB
This course introduces universal biological principles, including biological molecules, enzymes, cell structure and function, biochemistry, Mendelian and molecular genetics, ecology and evolution. BIOL 400 is recommended for science majors and students in pre-professional programs.

BIOL 410
Principles of Botany 5 Units
Prerequisite: BIOL 400 with a grade of “C” or better
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC; 108 hours LAB
This course is an introduction to the diversity, classification, life cycles, and evolutionary trends of plants, fungi, algae, and cyanobacteria. Emphasis is on the anatomy, morphology, physiology, development, evolution, and ecology of plants. A local weekend field trip may be required.

BIOL 420
Principles of Zoology 5 Units
Prerequisite: BIOL 400 with a grade of “C” or better
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 108 hours LAB
This course is 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.

BIOL 430
Anatomy and Physiology 5 Units
Prerequisite: CHEM 305, 309, or 400 with a grade of “C” or better
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 108 hours LAB
This is 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 BIOL 430 and BIOL 431 must be taken to study all of the major body systems.

BIOL 431
Anatomy and Physiology 5 Units
Prerequisite: BIOL 430 with a grade of “C” or better
General Education: CSU Area B2; CSU Area B3; IGETC Area 5B
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 108 hours LAB
This is an introductory course in which the basic principles of human anatomy and physiology are presented in an integrated fashion. This course covers the cardiovascular, respiratory, lymphatic/immune, digestive, urinary, endocrine and reproductive systems. Both BIOL 430 and BIOL 431 must be taken to study all of the major organ systems.

BIOL 440
General Microbiology 4 Units
Prerequisite: CHEM 305, 309, or 400 with a grade of “C” or better
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC; 72 hours LAB
This course introduces the concepts of microbiology with an emphasis on forms, modes of growth, cell specialization, mutual, commensal and parasitic relationships of bacteria, fungi, molds, protozoans and viruses. Topics will be correlated with medical and health applications to animals and human beings.
BIOL 462
Genetics in Contemporary Human Society  3 Units
Prerequisite: None
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC

This course introduces students to the principles of modern genetics, especially as they apply to human health and society. Rapid advances in scientists' knowledge of what genes are and how they work impact the daily life of people through genetically modified foods, DNA fingerprinting, therapies for human disease and a variety of reproductive technologies. This course includes the study of Mendelian inheritance, the roles of chromosomes and genes in human disease, how genes direct development, the relationship between genes, environment and behavior, and the contribution of genes to human diversity. Ethical, legal and social issues will be explored through class discussions and written reports. This course is primarily intended for non-biology majors; however, biology majors may enjoy the opportunity to explore human genetics in greater depth than is possible in BIOL 400.

BIOL 470
Behavioral Biology  3 Units
Prerequisite: None
Advisory: ENGRD 312 and ENGW 101; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course provides an overview of animal and human behavior in an evolutionary and ecological context. The course includes an introduction to patterns of animal and human behavior, cell and physiological processes, the structure and function of nervous systems, the genetics of behavior, the principles of evolution, and behavioral ecology. It is useful for both science and non-science majors.

BIOL 480
Honors Seminar in Biology - Coastal Field Biology  1 Unit
Same As: HONOR 380
Prerequisite: None
General Education: AA/AS Area IV
Course Transferable to CSU
Hours: 12 hours LEC; 18 hours LAB

Honors Seminars in Biology are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. In these seminars, students will study advanced topics from the area of biology, in this case coastal field biology. Enrollment is limited to Honors students. Details about the Honors Program can be found in the catalog and on the CRC website. This course is the same as HONOR 380. This course, under either name, may be taken a total of one time for credit.

BIOL 481
Honors Seminar in Biology - Human Cadaver Dissection  1 Unit
Same As: HONOR 383
Prerequisite: None
General Education: AA/AS Area IV
Course Transferable to CSU
Hours: 12 hours LEC; 18 hours LAB

The Honors Seminar in Biology is a special one-unit intensive course for academically accomplished students or those with the potential for high academic achievement. In this seminar, students will study the structure of the human body through the dissection of a cadaver. Students will gain experience in dissection techniques, more fully understand relationships among body parts and discuss physiological concepts as they pertain to anatomy. Writing a detailed lab notebook is an integral part of the course. Enrollment is limited to Honors students. Details about the Honors Program can be found in the Catalog and on the CRC website. This course is the same as HONOR 383. This course, under either name, may be taken a total of one time for credit.

BIOL 490
Science Skills and Applications  .5 Unit
Prerequisite: None
Corequisite: Current enrollment in a science course (designated by ASTR, BIOL, CHEM, GEOG, GEOL, PHYS, or PS).
Course Transferable to CSU
Hours: 27 hours LAB

This course offers individualized instructional modules designed to acquire or improve reading skills in the various science classes—majors, non-majors, and allied health courses. A partial list of skills may include the following: textbook comprehension, principles of learning and retention, note taking, annotating, discipline-based vocabulary, paraphrasing, reading graphics, test taking, and problem solving. Registration is open through the twelfth week of the semester. Credit / No Credit only.

BIOL 495
Independent Studies in Biology  1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB

An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
BIOL 498  
Work Experience in Biology  
1-4 Units  
Prerequisite: None  
General Education: AA/AS Area III(b)  
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Biology.  
Course Transferable to CSU  
Hours: 300 hours LAB  
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student's progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

BIOL 499  
Experimental Offering in Biology  
.5-4 Units  
Prerequisite: None  
Course Transferable to CSU  
See UC Limitations & Counselor  
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.A.—Broadcast Journalism

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

Career Opportunities
- News Broadcaster
- Sportscaster
- Announcer
- Newswriter
- News Producer
- Journalist
- Multi-Media Writer
- Internet Information Specialist

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

Highlights
- Practical Experience in the digital TV studio and campus radio station
- Internship opportunities in local radio and TV stations
- Practical Experience as an on-camera TV reporter/anchor or as a radio broadcaster

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

Suggested Electives to Consider for fulfilling GE or 60-Unit Degree Requirement:
- COMM 311 Argumentation and Debate
- COMM 315 Persuasion
- ECON 302 Principles of Macroeconomics
- POLS 301 Introduction to Government: United States
- POLS 302 Introduction to Government: Foreign
- POLS 310 Introduction to International Relations

Associate Degree
The Broadcast Journalism Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

See Radio, Television & Film Production section for other programs and offerings.
DEGREE
A.S.—Building Inspection Technology

CERTIFICATE OF ACHIEVEMENT
Building Inspection Technology

CERTIFICATES OF PROFICIENCY
Concrete Construction Inspection

See also:

Program Description
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.

Career Opportunities
Building Inspector
Plan Checker
Construction
Supervisor
Foreman
Construction Management
Government Building Official

Some Career Opportunities may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some Career Opportunities 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

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.S.—Building Inspection Technology

CODE #1045

REQUIRED PROGRAM................................................................. Units
BIT 100 Introduction to the International Building Code........... 3
BIT 101 Introduction to the International Residential Code...... 3
BIT 112 Building Inspection Principles for Disabled Access..... 3
BIT 120 Mechanical I/Plumbing Code Requirements............ 3
BIT 121 Mechanical II / H.V.A.C. Code Requirements......... 3
BIT 140 Electrical I............................................................... 3
CMT 310 Materials of Construction..................................... 3
A minimum of 18 units from the following: .......................... 18
BIT 102 Reading and Non-Structural Plan Review (3)
BIT 104 International Building Code – Fire & Life Safety (3)
BIT 106 Introduction to Special Inspection – Concrete, Masonry, Steel, and Soils (3)
BIT 130 Introduction to Inspection of Wood Frame Construction (3)
BIT 141 Electrical II (3)
BIT 150 California Energy Code – Building Energy Efficiency Standards (3)
BIT 152 HERS I, Field Verification and Diagnostic Testing for Code Compliance (3)
BIT 154 California Green Building Standards Code (2)
TOTAL UNITS REQUIRED.................................................... 39

Suggested Electives: ADT 310; BUS 340; CMT 120

Associate Degree
The Building Inspection Technology Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF ACHIEVEMENT
Building Inspection Technology
CODE #1045

REQUIRED PROGRAM................................................. Units
BIT 100 Introduction to the International Building Code........ 3
BIT 101 Introduction to the International Residential Code ...... 3
BIT 112 Building Inspection Principles for Disabled Access..... 3
BIT 120 Mechanical / Plumbing Code Requirements............ 3
BIT 121 Mechanical II / H.V.A.C. Code Requirements.......... 3
BIT 140 Electrical I.................................................. 3
CMT 310 Materials of Construction................................ 3
A minimum of 12 units from the following:.......................... 12
BIT 102 Reading and Non-Structural Plan Review (3)
BIT 104 International Building Code – Fire & Life Safety (3)
BIT 106 Introduction to Special Inspection – Concrete,
Masonry, Steel, and Soils (3)
BIT 130 Introduction to Inspection of Wood
Frame Construction (3)
BIT 141 Electrical II (3)
BIT 150 California Energy Code – Building Energy
Efficiency Standards (3)
BIT 152 HERS I, Field Verification and Diagnostic Testing for
Code Compliance (3)
BIT 154 California Green Building Standards Code (2)
TOTAL UNITS REQUIRED.............................................. 33

CERTIFICATE OF PROFICIENCY
Concrete Construction Inspection
CODE #1338

REQUIRED PROGRAM................................................. Units
BIT 100 Introduction to International Building Code........ 3
BIT 102 Reading and Non-Structural Plan Review .............. 3
CMT 310 Materials of Construction.............................. 3
CISC 302 Computer Familiarization............................... 2
BIT 136 Concrete Principles and Inspection.................... 3
TOTAL UNITS REQUIRED.............................................. 14

Suggested Elective:  ADT 310

BUILDING INSPECTION TECHNOLOGY (BIT)

BIT 100
Introduction to the International Building Code 3 Units
Prerequisite: None
Hours: 54 hours LEC
This basic course is designed to provide background material on which
the International Building Code was founded and the legal basis for the
code. Emphasis will be placed on the development and proper use of
the code.

BIT 101
Introduction to the International Residential Code 3 Units
Prerequisite: None
Hours: 54 hours LEC
This basic course is designed to provide a thorough understanding
of residential construction requirements for building plan review and
inspection. The course will cover the portions of the International
Residential Code that have been adopted by the State of California.
Emphasis will be placed on the development and proper use of the
code.

BIT 102
Reading and Non-Structural Plan Review 3 Units
Prerequisite: None
Advisory: ADT 300 and BIT 100
Hours: 54 hours LEC
This course provides a thorough understanding of the plan reading and
non-structural plan review process undertaken by building departments
prior to plan approval.

BIT 104
International Building Code - Fire & Life Safety 3 Units
Prerequisite: None
Advisory: BIT 100 and CMT 300
Hours: 54 hours LEC
This course covers the use and application of the International Building
Code for construction inspection.

BIT 106
Introduction to Special Inspection-
Concrete, Masonry, Steel, and Soils 3 Units
Prerequisite: None
Hours: 54 hours LEC
This course covers the Special Inspection requirements of chapter
seventeen (17) in the International Building Code. The course will
provide the technical knowledge and information necessary for Building
Inspectors to oversee and approve Special Inspections performed by
Special Inspectors on concrete, masonry, structural steel and soils.
BIT 110  Engineering and Structural Principles for Building Construction  3 Units
Prerequisite: None
Advisory: BIT 100
Hours: 54 hours LEC
This course covers the basic engineering and structural principles used in the construction industry. This course includes civil engineering, plan reading, site layout, mechanics of materials, soil fundamentals, and the construction and inspection of structural systems.

BIT 112  Building Inspection Principles for Disabled Access  3 Units
Prerequisite: None
Advisory: BIT 100
Hours: 54 hours LEC
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.

BIT 120  Mechanical I / Plumbing Code Requirements  3 Units
Prerequisite: None
Advisory: CMT 300
Hours: 54 hours LEC
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, emerging technologies.

BIT 121  Mechanical II / H.V.A.C. Code Requirements  3 Units
Prerequisite: None
Advisory: CMT 300
Hours: 54 hours LEC
This course covers the use and interpretation of the Uniform Mechanical Code, and legal and administrative enforcement procedures used in mechanical installations, emerging trends and technologies.

BIT 130  Introduction to Inspection of Wood Frame Construction  3 Units
Prerequisite: None
Advisory: BIT 100
Hours: 54 hours LEC
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 and wind design. Simple beam calculations will be made.

BIT 132  Steel Construction Principles & Inspection  3 Units
Prerequisite: None
Advisory: BIT 100 and CMT 310
Hours: 54 hours LEC
This is a course in steel construction principles for building inspectors. The course will cover materials used in steel construction; quality control and testing; general construction practice and layout; welding principles and inspection; bolting principles and inspection; and International Building Code standards relating to steel construction.

BIT 134  Soils and Asphalt Principles and Inspection  3 Units
Prerequisite: None
Advisory: BIT 100
Hours: 54 hours LEC
This course examines the use of asphalt and soils in building construction for inspectors. The course will cover soils testing and inspection; principles of soils for construction purposes, materials used in asphalt paving; asphalt materials and inspection, and Uniform Building Code standards relating to soils and asphalt.

BIT 136  Concrete Principles & Inspection  3 Units
Prerequisite: None
Advisory: BIT 100 and CMT 310
Hours: 54 hours LEC
This course provides technical knowledge of concrete construction and inspection. This course also includes mix design, material testing, aggregate selection, reinforcing bars, handling field problems, crack control, and repairs and restoration.

BIT 138  Masonry Principles & Inspection  3 Units
Prerequisite: None
Advisory: BIT 100 and CMT 310
Hours: 54 hours LEC
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 International Building Code standards relating to masonry.

BIT 140  Electrical I  3 Units
Prerequisite: None
Advisory: BIT 100
Hours: 54 hours LEC
This course reviews basic electricity and electrical principles for building inspection. This course cover in detail the basic electrical code requirements for residential and commercial structures as well as the use and interpretation of the National Electrical Code, legal and administrative enforcement procedures, field inspection techniques and procedures, methods and techniques used in electrical installations, emerging technologies.
BIT 141
Electrical II
3 Units
Prerequisite: None
Advisory: BIT 140
Hours: 54 hours LEC
This course is an in-depth study of the National Electrical Code (NEC) text adopted into the California Building Standards Code (Title 24). Study will include the most critical aspects of the National Electrical Code for electrical wiring systems found in residential, commercial and industrial installations.

BIT 150
California Energy Code - Building Energy Efficiency Standards
3 Units
Prerequisite: None
Hours: 54 hours LEC
This course introduces the interpretation and use of the California Energy Code, and legal and administrative enforcement procedures with emphasis on heating, ventilating, air conditioning and related installations.

BIT 152
HERS I, Field Verification and Diagnostic Testing for Code Compliance
3 Units
Prerequisite: None
Advisory: BIT 150
Hours: 45 hours LEC; 27 hours LAB
This course is an introduction to the California Home Energy Rating System (HERS) and prepares students to obtain certification as a HERS I rater. The HERS I certification allows certified individuals to verify certain energy efficiency measures of newly constructed buildings and alterations to existing buildings for compliance with the California Energy Code.

BIT 154
California Green Building Standards Code
2 Units
Prerequisite: None
Hours: 36 hours LEC
The purpose of this course is to introduce students to the history, purpose, proper use and interpretation of the California Green Building Standards Code. The California Green Building Standards Code was adopted by the State of California in July of 2010 and became effective on January 1, 2011. These standards will be felt across all of the industry’s occupations, from architects and designers to builders and inspectors. This course fills elective requirements in the BIT degree, as well as the Green Building Certificate.

BIT 298
Work Experience in
Building Inspection Technology
1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Building Inspection Technology.
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in associate degree level or certificate occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

BIT 299
Experimental Offering in
Building Inspection Technology
.5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
DEGREES
A.S.-T — Business Administration for Transfer
A.A. — Business Administration
A.A. — Business, General
A.A. — Business, Small Business Management/Entrepreneurship
A.A. — Business, Administrative Professional

CERTIFICATES OF ACHIEVEMENT
Business, Office Assistant
Business, Office Technician
Business, Small Business Management/Entrepreneurship

CERTIFICATE OF PROFICIENCY
Business, E-Business and the Internet

See also:
Medical Assisting Administrative
Medical Insurance Billing (Medical Assisting Program)
Professional Applications of Geographic Information Systems (GIS) (Business/Marketing emphasis) (Geography Program)

Program Description
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.

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.

Accounting Program
Business, General Program
Business Administration Program
Computer Information Science Program
Economics Program
Finance Program
Management Program
Marketing Program
Real Estate Program
Small Business Management / Entrepreneurship Program

See the corresponding pages for the specific Career Opportunities in each of the above fields of study.

Career Opportunities
Account Executive
Bank Employee
Clerk
Data-Entry Specialist
Financial Planner
Insurance Representative
Manager Marketing
Office Assistant
Purchasing Agent
Retail/Industrial Sales
Tax Consultant

There are some self-employment opportunities available in these fields. Some Career Opportunities 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

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo
The Associate in Science in Business Administration for Transfer Degree prepares students for graduation from Cosumnes River College as well as transfer to a four-year university. It is designed to meet common lower division requirements for a major in business administration at most California State University (CSU) campuses. Students with this degree will receive priority admission with junior status to the CSU System, although not necessarily to a particular campus or major. Courses required for the degree provide students with a practical as well as theoretical foundation in the discipline. Although satisfactory completion of the CRC Associate in Science in Business Administration for Transfer (A.S.-T) degree provides a solid foundation and satisfies the standard prerequisites for upper division coursework for business administration majors at most CSU and other four-year universities, it is highly recommended that students meet with a counselor since major and general education requirements vary for each transfer university.

Note to Transfer Students:
The Business Administration A.S.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses you wish to take in preparation for your major at the transfer university you wish to attend.

REQUIRED PROGRAM.......................................................... UNITS
ACCT 301 Financial Accounting........................................... 4
ACCT 311 Managerial Accounting....................................... 4
ECON 304 Principles of Microeconomics.......................... 3
ECON 302 Principles of Macroeconomics.......................... 3
BUS 340 Business Law.................................................... 3
One of the following two courses: ........................................3
BUS 300 Introduction to Business (3)
BUS 310 Business Communications (3)
One of the following four courses: .....................................3-4
MATH 341 Calculus for Business (4)
MATH 343 Modern Business Mathematics (4)
MATH 344 Finite Mathematics (3)
STAT 300 Introduction to Probability & Statistics (4)
A minimum of 3 units from the following: ........................... 3-4
CISC 310 Introduction to Computer Information Science (3)
CISA 305 Beginning Word Processing (2)
CISA 308 Exploring Word Processing & Presentation Software (1)
CISA 315 Introduction to Electronic Spreadsheets (2)
CISA 318 Exploring Spreadsheet Software (1)
CISC 340 Presentation Graphics (2)
CISC 308 Exploring Computer Environments & the Internet (1)
TOTAL UNITS REQUIRED.................................................. 26-28
DEGREE TOTAL (INCLUDING GE)........................................ 60

* Major courses which also fulfill a transfer General Education (GE) requirement (“double-counting”). Please note that there are limitations on double-counting — consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

7 Students may also select one of the following courses if not already used: MATH 341, MATH 343, MATH 344 or STAT 300.

Associate in Science in Business Administration for Transfer Degree
The Associate in Science in Business Administration for Transfer (A.S.-T) degree may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.

REQUIRED PROGRAM.......................................................... Units
ACCT 301 Financial Accounting........................................... 4
ACCT 311 Managerial Accounting....................................... 4
BUS 345/SOCSC 360 Law and Society or BUS 340 Business Law.................................................... 3
BUS 300 Introduction to Business....................................... 3
CISC 310 Intro. to Computer Information Science (3)........ 3-5
or CISA 305 Beginning Wordprocessing (2) and
CISA 315 Intro to Electronic Spreadsheets (2) and
CISC 320 Operating Systems (1)
or CISA 308 Exploring Word processing & Presentation Software (1) and
CISA 318 Exploring Spreadsheet Software (1) and
CISC 308 Exploring Computer Environments & the Internet (1)
ECON 302 Principles of Macroeconomics........................ 3
ECON 304 Principles of Microeconomics........................ 3
MATH 341 Calculus for Business and Economics or
MATH 343 Modern Business Mathematics.................... 4
STAT 300 Introduction to Probability and Statistics........ 4
TOTAL UNITS REQUIRED.................................................. 31-33

Suggested Electives:
ACCT 341
BUS 310, 340, 345
BUSTEC 302, 303
CISC 302
MGMT 362, 372
MTK 300, 330
RE 300

Associate Degree
The Business Administration Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
DEGREE
A.A. – Business, General
CODE #1046

This degree is designed for students wishing to seek employment instead of transfer upon its completion.

REQUIRED PROGRAM ......................................................... Units
ACCT 301 Financial Accounting .................................................. 4
BUS 310 Business Communications .............................................. 3
BUS 330 Managing Diversity in the Workplace .......................... 3
BUS 340 Business Law .......................................................... 3
BUS 300 Introduction to Business ............................................. 3
BUSTEC 302 Computer-Keyboarding ......................................... 2
MKT 300 Principles of Marketing ............................................. 3
or MGMT 362 Techniques of Management (3)............................. 3
ECON 302 Principles of Macroeconomics (3) .............................. 3
or ECON 320 Concepts in Personal Finance (3) ......................... 3
or ECON 100 Introduction to Economics (3) ............................... 3
CISC 310 Introduction to Computer Information Science ......... 3-4

Four (4) units to include:
CISC 302 or JOUR 330 Computer Familiarization (2) and
Any two (2) additional units selected from:
CISA 305 Beginning Word Processing (2)
CISA 315 Introduction to Electronic Spreadsheets (2)
CISA 320 Introduction to Database Management (1)
CISA 330 Desktop Publishing (2)
CISA 340 Presentation Graphics (2)
CISC 320 Operating Systems (1)
CISC 355 Introduction to Data Communications (1.5)
ACCT 103 Intermediate Accounting - Part I ............................... 4
ACCT 104 Intermediate Accounting - Part II ................................ 4
ACCT 107 Auditing .................................................................. 3
ACCT 111 Cost Accounting ....................................................... 3
ACCT 311 Managerial Accounting ............................................. 4
ACCT 341 Computerized Accounting ..................................... 2
BUSTEC 101 Computer Keyboarding: 10-Key ......................... 1

TOTAL UNITS REQUIRED .................................................. 48-49

Suggested Electives:
ACCT 121, 311, 341
BUS 100, 210, 350
CISA 306, 316, 321, 331
CISC 321, 356
MGMT 308, 360, 372
MKT 120, 310, 312, 314, 330
RE 110, 120, 130, 300

Associate Degree
The Business, General Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

DEGREE
A.A. – Business, Administrative Professional
CODE #1052

REQUIRED PROGRAM .................................................................. Units
ACCT 301 Financial Accounting (4) ........................................... 3-4
or ACCT 101 Fundamentals of College Accounting (3) .............. 3
BUS 310 Business Communications ......................................... 3
BUS 330 Managing Diversity in the Workplace ......................... 3
BUS 345 Law and Society ......................................................... 3
or BUS 340 Business Law ......................................................... 3
BUS 300 Introduction to Business ............................................. 3
BUSTEC 302 Computer-Keyboarding ....................................... 2
MGMT 362 Techniques of Management .................................. 3
MKT 300 Principles of Marketing ............................................. 3
CISC 310 Introduction to Computer Information Science ......... 3-4
or Four (4) units to include:
CISC 302 or JOUR 330 Computer Familiarization (2) and
Any two (2) additional units selected from:
CISA 305 Beginning Word Processing (2)
CISA 315 Introduction to Electronic Spreadsheets (2)
CISA 320 Introduction to Database Management (1)
CISA 330 Desktop Publishing (2)
CISA 340 Presentation Graphics (2)
CISC 320 Operating Systems (1)
CISC 355 Introduction to Data Communications (1.5)
ECON 302 Principles of Macroeconomics (3) ............................ 3
or ECON 320 Concepts in Personal Finance (3) ......................... 3
or ECON 100 Introduction to Economics (3) ............................... 3

ADMINISTRATIVE PROFESSIONAL FOCUS:
BUSTEC 303 Computer-Keyboard Formatting ............................ 2
BUSTEC 304 Computer-Keyboard Speed-and-Accuracy Building 2
BUS 100 English for the Professional ....................................... 3
BUSTEC 101 Computer Keyboarding: 10-Key ......................... 1
CISA 305 Beginning Word Processing ................................... 2
CISA 306 Intermediate Word Processing ................................ 2

A minimum of 3 units from the following: ........................... 3
ACCT 121 Payroll Accounting (3)
ACCT 341 Computerized Accounting (2)
BUS 105 Business Mathematics (3)
CISA 316 Intermediate Electronic Spreadsheets (2)
CISA 331 Intermediate Desktop Publishing (2)

A minimum of 3 units from the following: ........................... 3
BUSTEC 110 Business Procedures for Professional Success (3)
BUS 498 Work Experience in Business (1 - 4)
TOTAL UNITS REQUIRED .................................................. 46-49

Associate Degree
The Business, Administrative Professional Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
DEGREE
A.A.—Business, Small Business Management/Entrepreneurship

CODE #1254

REQUIRED PROGRAM.................................................Units

BUSINESS CORE:
ACCT 301 Financial Accounting (4).................................3-4
or ACCT 101 Fundamentals of College Accounting (3) .......3
BUS 310 Business Communications .............................3
BUS 330 Managing Diversity in the Workplace ...............3
BUS 345 Law and Society (3) ........................................3
or SOCS 360 Law and Society (3) .................................3
BUS 300 Introduction to Business ................................3
BUSTEC 302 Computer-Keyboarding..........................2

SMALL BUSINESS MANAGEMENT/ENTREPRENEURSHIP FOCUS:
MKT 310 Principles of Marketing ..................................3
or BUS 320 Concepts in Personal Finance (3) .................3

A minimum of 3 units from the following:.......................3
CISC 310 Introduction to Computer Information Science ....3-4
or Four (4) units to include:
CISC 302 or JOUR 330 Computer Familiarization (2) and
Any two (2) additional units selected from:
CISA 305 Beginning Word Processing (2)
CISA 315 Introduction to Electronic Spreadsheets (2)
CISA 320 Introduction to Database Management (1)
CISA 330 Desktop Publishing (2)
CISA 340 Presentation Graphics (2)
CISC 320 Operating Systems (1)
CISC 355 Introduction to Data Communications (1.5)

TOTAL UNITS REQUIRED.............................................34-37

1 BUSTEC 302 may be replaced by keyboarding speed verification at 25 wpm or better.

Suggested Electives:
ACCT 125, ACCT 341; MGMT 362, MGMT 372; MKT 330

Associate Degree
The Business, Small Business Management/Entrepreneurship Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Business, Office Assistant

CODE #1492

This certificate is designed to provide students with the tools needed for entry-level office positions. The Office Assistant Certificate is appropriate for students who do not have any clerical work experience. Upon completion of the Office Assistant Certificate, the student would be prepared for an office position as a trainee.

REQUIRED PROGRAM.................................................Units

CORE COURSES:
BUSTEC 306 Computer Keyboarding and Formatting ..........4
BUSTEC 304 Computer-Keyboard Speed-and-Accuracy Building 2
BUS 100 English for the Professional ............................3
BUSTEC 101 Computer Keyboarding: 10-Key ..................1
CISC 302 Computer Familiarization ...............................3
CISA 305 Beginning Word Processing ............................2
CISA 315 Introduction to Electronic Spreadsheets .............2

OFFICE ASSISTANT:
BUSTEC 120 Skills for Today’s Office .............................1
BUS 300 Introduction to Business ................................3

TOTAL UNITS REQUIRED.........................................20

1 BUSTEC 304 may be replaced by keyboarding speed verification at 40 wpm or better.

CERTIFICATE OF ACHIEVEMENT
Business, Office Technician

CODE #1493

This certificate program is designed to provide the tools needed for entry-level office positions. The Office Technician Certificate is designed to provide promotional skills for students desiring office positions. Upon completion of the Office Technician Certificate, the student would be prepared for an office position.

REQUIRED PROGRAM...............................................Units

Core Courses
BUSTEC 302 Computer Keyboarding .............................0-2
BUSTEC 304 Computer Keyboard Speed-and-Accuracy Blog ....0-2
BUSTEC 303 Computer Keyboarding: 10-Key ...............2
BUS 100 English for the Professional ............................3
BUSTEC 101 Computer Keyboarding: 10-Key ...............1
CISC 302 Computer Familiarization ...............................2
CISA 305 Beginning Word Processing ............................2
CISA 315 Introduction to Electronic Spreadsheets .........2

Office Technician:
BUSTEC 110 Business Procedures for Professional Success ....3
CISA 306 Intermediate Word Processing .......................2
CISA 316 Intermediate Electronic Spreadsheets ............ 2

A minimum of 1 unit from the following:......................1-2
CISA 320 Introduction to Database Management (1)
CISA 340 Presentation Graphics (2)

TOTAL UNITS REQUIRED.........................................20-25

1 BUSTEC 302 may be replaced by keyboarding speed verification at 25 wpm or better.
2 BUSTEC 304 may be replaced by keyboarding speed verification at 40 wpm or better.
CERTIFICATE OF ACHIEVEMENT
Small Business Management/Entrepreneurship
CODE #1254

REQUIRED PROGRAM ................................................................................. Units
BUS 310 Business Communications ............................................. 3
BUS 300 Introduction to Business .................................................... 3
BUSTEC 302 Computer-Keyboarding ............................................. 2
or MKT 330 Internet Marketing ....................................................... 3
MKT 310 Selling Professionally ....................................................... 3
A minimum of 3 units from the following: ........................................ 3
BUS 350 Small Business Management/Entrepreneurship (3)
BUS 210 The Business Plan (1)
BUS 222 Going International (1)
CISC 310 Introduction to Computer Information Science........... 3
TOTAL UNITS REQUIRED ................................................................. 20

1 Keyboarding speed verification at 25 wpm or better may replace BUSTEC 302

CERTIFICATE OF PROFICIENCY
Business, E-Business and the Internet
CODE #1507

E-Business is the buying and selling of products and services over the Internet. The Internet is a revolution in communications. In our program we want to provide students with the necessary skills to be able to operate an E-Business in a successful manner. This certificate will allow students to gain the essential business knowledge and skills and to apply this knowledge through the use of these new technologies. This is an evolutionary extension of the business world’s history of combining new methods and opportunities into better service for our customers. The student should have a basic understanding of these new technological advances, and understand the importance of getting competent assistance in making the transition in incorporating these new tools into a success business model for their firm’s needs.

REQUIRED PROGRAM ................................................................................. Units
MKT 330 Internet Marketing ............................................................ 3
BUS 300 Introduction to Business .................................................... 3
MGMT 362 Techniques of Management ...................................... 3-4
or BUS 340 Business Law (3)
or ACCT 301 Financial Accounting (4)
or BUS 320 Concepts in Personal Finance (3)
A minimum of 2 units from the following: ....................................... 2
CISA 330 Desktop Publishing (2)
CISA 331 Intermediate Desktop Publishing (2)
CISC 305 Introduction to the Internet (1)
CISC 306 Introduction to Web Page Creation (1)
A minimum of 3 units from the following: ....................................... 3
BUSTEC 110 Business Procedures for Professional Success (3)
BUS 210 The Business Plan (1)
BUS 350 Small Business Management/Entrepreneurship (3)
TOTAL UNITS REQUIRED ................................................................. 14-15

BUSINESS (BUS)

BUS 100
English for the Professional 3 Units
Prerequisite: ENGRD 110 and ENGW 51 with grades of “C” or better; or ESLR 320 and ESLW 320.
Advisory: BUSTEC 302 and 303
Hours: 54 hours LEC

This course is designed to prepare the student for business communication. It 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, business vocabulary, and business document-formatting. Emphasis is placed on critical thinking and effective writing techniques through analyzing written communication and composing and organizing paragraphs into effective business documents. Computer skills are needed to format business documents and search the Internet for information. Proofreading skills are stressed throughout the course. The course is recommended for all business majors during their first semester.

BUS 105
Business Mathematics 3 Units
Prerequisite: None
Hours: 54 hours LEC

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. This course is recommended for every major in business.

BUS 170
Introduction to Insurance: Life Agents 3 Units
Prerequisite: None
Hours: 54 hours LEC

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.

BUS 171
Introduction to Insurance: Fire & Casualty 3 Units
Prerequisite: None
Hours: 54 hours LEC

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.

BUS 210
The Business Plan 1 Unit
Prerequisite: None
Hours: 18 hours LEC

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.
BUS 215
Entrepreneurial Opportunity & Business Planning 3 units
Prerequisite: None
Hours: 54 hours LEC
This course provides students with insight and knowledge into developing their entrepreneurial opportunity and creating a business plan for it. Students will research entrepreneurial ideas and determine how to turn an idea into a successful startup enterprise given the current and anticipated demographic, technological and social climates. Students will also be offered an organized, step-by-step approach to preparing a business plan. Once students are able to assess the feasibility of their own business ideas based on their personal strengths, skills, and financial goals, they will develop and produce a comprehensive business plan. Students will analyze the organization and management of a new business and map out how to execute a new business venture. The plan will enable the students to solve problems “on paper” before they become operational or money problems. Students with little entrepreneurial experience or have business ideas they would like to pursue will benefit from this course.

BUS 222
Going International 1 Unit
Prerequisite: None
Hours: 18 hours LEC
This intensive course overviews the following topics for the small business entrepreneur who is considering going international: the international business environment, strategic considerations, and managing in a multinational environment.

BUS 295
Independent Studies in Business 1-3 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

BUS 299
Experimental Offering in Business .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

BUS 300
Introduction to Business 3 Units
Prerequisite: None
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides a survey of all business areas, including accounting, law, human resources, 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.

BUS 310
Business Communications 3 Units
Prerequisite: BUS 100 with a grade of “C” or better
Advisory: Ability to key 30 or more words a minute and use a current office-level word processing program.
General Education: AA/AS Area I(a)
Course Transferable to CSU
Hours: 54 hours LEC
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.

BUS 320
Concepts in Personal Finance 3 Units
Same As: ECON 320
Prerequisite: None
Advisory: BUS 105
General Education: AA/AS Area V(b)
Course Transferable to CSU
Hours: 54 hours LEC
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. This course is the same as ECON 320, and only one may be taken for credit.

BUS 330
Managing Diversity in the Workplace 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D7
Course Transferable to CSU
Hours: 54 hours LEC
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.

BUS 340
Business Law 3 Units
Prerequisite: None
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC
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.
BUS 345
Law and Society 3 Units
Same As: SOCSC 360
Prerequisite: None
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 BUS 340 when required. This course is the same as SOCSC 360, and only one may be taken for credit. See Cross-Listed Courses in the catalog.

BUS 350
Small Business Management/Entrepreneurship 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This class provides an overview of the various elements involved in starting and operating a small business. It introduces such topics as developing a business plan, finding financial resources, developing personal and business goals, meeting legal requirements, understanding marketing concepts, and other topics of interest to the entrepreneur.

BUS 354
Students in Free Enterprise 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course provides students with an overview of what it takes to be successful in business through implementation of group projects and business leadership practices. Students will complete community based business projects, focusing on business and project planning, team building, communications, preparing and processing information, and leadership. Students will plan, implement, and evaluate each project and then compose an annual report and deliver a professional presentation that will be evaluated by a selection of industry and business leaders at a regional competition, Students in Free Enterprise (SIFE). Students receive instruction in the areas of entrepreneurship, small business management, business planning, project management, oral and written presentation skills. This course emphasizes activities and techniques that develop competencies needed to become a successful business leader. This course is designed to prepare students for the SIFE competition; therefore it may be taken a maximum of four times for credit.

BUS 348
Honors Seminars in Business 1 Unit
Same As: HONOR 320
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC
Honors Seminars in Business are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. In these seminars, students will study topics in the movements, trends and philosophies found in the business. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as HONOR 320. This course, under either name, may be taken a total of one time for credit.

BUS 490
Individualized Projects in Business 1-4 Units
Prerequisite: None
Advisory: 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.
Course Transferable to CSU
Hours: 36 hours LEC; 108 hours LAB
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.

BUS 495
Independent Studies in Business .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

BUS 498
Work Experience in Business 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Business.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the worksite; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.
BUSINESS TECHNOLOGY (BUSTEC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSTEC 101</td>
<td>Computer Keyboarding: 10-Key</td>
<td>1</td>
<td>This course introduces the numeric keypad and develops the ability to key information into a computer with speed and accuracy.</td>
</tr>
<tr>
<td>BUSTEC 110</td>
<td>Business Procedures for Professional Success</td>
<td>3</td>
<td>This course develops skills associated with the business professional, including specialized procedures in electronic workplaces. Students learn critical thinking, problem solving, teamwork, supervision skills, administrative procedures, and information-processing technologies. Specific areas include the 21st century workplace; business technology; business communication; records management; meetings, travel, and financial documents; and the business professional's career. The course emphasizes developing a work-site team through effective communications, dependability, interpreting various management responsibilities, and motivational techniques. Recommended for all management information science and business students.</td>
</tr>
<tr>
<td>BUSTEC 120</td>
<td>Skills for Today's Office</td>
<td>1</td>
<td>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 situations. This course emphasizes activities and techniques that enhance competencies needed in today's office.</td>
</tr>
</tbody>
</table>

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<tr>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSTEC 299</td>
<td>Experimental Offering in Business Technology</td>
<td>.5</td>
<td>This intensive introductory computer-keyboard course emphasizes operating alphabetic, numeric, and symbol keys by touch. It includes computer-keyboarding techniques, speed-and-accuracy development, proofreading proficiency, communication skills, essential computer-keyboarding information, and use of basic features of a current office level word processing program. Workplace etiquette and common organizational duties are introduced and reinforced throughout the course. This course is not open to students who have received credit for BUSTEC 306.</td>
</tr>
<tr>
<td>BUSTEC 302</td>
<td>Computer-Keyboarding</td>
<td>2</td>
<td>This intensive computer-keyboard formatting course emphasizes application of the following formatting concepts: horizontal and vertical centering, business letter styles, memorandums, tables, and reports. The course includes developing proofreading proficiency, reinforcing communication skills, developing speed and accuracy, and using the features of a current office-level word processing program. Workplace etiquette and common organizational duties are introduced and reinforced throughout the course. This course is not open to students who have received credit for BUSTEC 306.</td>
</tr>
<tr>
<td>BUSTEC 303</td>
<td>Computer-Keyboard Speed-and-Accuracy Building</td>
<td>2</td>
<td>This course builds upon previous computer-keyboard skills and stresses speed-and-accuracy techniques. It includes skills assessment and individually prescribed improvement plans. The student will be reading and interpreting written and oral instructions. Students who feel that they have skills equivalent to the prerequisite are encouraged to apply for credit by examination for BUSTEC 302.</td>
</tr>
</tbody>
</table>
BUSTEC 306
Computer Keyboarding and Formatting 4 Units
Same As: BUSTEC 303
Prerequisite: None
Advisory: ESLR 320
General Education: AA/AS Area III(b)
Course Transferable to CSU

Hours: 72 hours LEC

This introductory computer keyboarding/formatting course emphasizes operating alphabetic, numeric, and symbol keys by touch. It includes computer-keyboard techniques, speed-and-accuracy development, proofreading proficiency, communication skills, essential computer keyboard information, and use of the features of a current office-level word processing program. The formatting portion of the course emphasizes applications of the following formatting concepts: horizontal and vertical centering, business-letter styles, memorandums, tables and reports. Workplace etiquette and business protocol are introduced and reinforced throughout the course. This course is not open to students who have received credit for BUSTEC 303.

BUSTEC 499
Experimental Offering in Business Technology .5-4 Units
Prerequisite: None
Course Transferable to CSU

Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.S.—Chemistry

Program Description
The Chemistry Program at CRC consists of:
• A series of chemistry courses designed to meet transfer requirements for chemical, 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 Opportunities
Biochemist
Pharmacist
Chemical Technology
Dentist
Allied Health Professional
Physicist
Geochemist

Some Career Opportunities require more than two years of college study. Classes beyond the associate degree may be required to fully prepare students for transfer to a university program.

Highlights
• An outstanding chemistry faculty striving to maintain an excellent 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

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.S.—Chemistry
CODE #1402

This degree is designed to meet common lower division requirements for a major in chemistry.

REQUIRED PROGRAM
CHEM 400 General Chemistry .................................................. 5
CHEM 401 General Chemistry .................................................. 5
CHEM 420 Organic Chemistry .................................................. 5
CHEM 421 Organic Chemistry .................................................. 5
MATH 400 Calculus I ................................................................. 5
MATH 401 Calculus II ............................................................... 5
MATH 402 Calculus III ............................................................. 5
PHYS 411 Mechanics of Solids and Fluids ................................. 4
PHYS 421 Electricity and Magnetism ......................................... 4
PHYS 431 Heat, Waves, Light and Modern Physics ....................... 4
TOTAL UNITS REQUIRED ....................................................... 47

Associate Degree
The Chemistry Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CHEMISTRY (CHEM)

CHEM 300
Beginning Chemistry 4 Units
Prerequisite: MATH 100 or 102 with a grade of “C” or better
Advisory: Completion of or concurrent enrollment in MATH 120.
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB

This course covers an introduction to fundamental chemical concepts, problem-solving and laboratory skills. CHEM 300 is designed for students needing a comprehensive review of or intensive preparation in chemistry. This course is primarily intended to prepare students for CHEM 400.
CHEM 305
Introduction to Chemistry 5 Units
Prerequisite: MATH 100 or 102 with a grade of "C" or better
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 72 hours LEC, 54 hours LAB
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 environmental 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, oxidation-reduction and an introduction to organic functional groups as they pertain to medicine or biological systems.

CHEM 306
Introduction to Chemistry 5 Units
Prerequisite: CHEM 305 with a grade of "C" or better
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 72 hours LEC, 54 hours LAB
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. Special topics include enzymes and enzyme regulation, drugs their bioavailability and metabolism.

CHEM 309
Integrated General, Organic, and Biological Chemistry 5 Units
Prerequisite: MATH 100 or 102 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
Advisory: ENGWR 101; or equivalent skills demonstrated through the assessment process.
Successful completion of high school Chemistry General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 72 hours LEC, 54 hours LAB
This course is an intensive survey of general, organic, and biological chemistry specifically designed for nursing majors and other health-related fields. Topics include general chemistry, organic chemistry, and biological chemistry. This course satisfies the requirements of those health-career programs that require one semester of chemistry. Students who had chemistry in high school and retained some of it are advised to take CHEM 305. Students who have not taken a chemistry course recently or have never taken a chemistry course are advised to take the CHEM 305 and CHEM 306 sequence.

CHEM 321
Environmental Chemistry 3 Units
Prerequisite: None
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course explores the interrelationship of human beings and the surrounding environment with regard to the chemical substances that are encountered in everyday life. The role of chemistry in both creating and solving environmental problems as well as providing solutions to environmental problems will be examined. Students will learn how chemicals released to the environment can have adverse effects on ecosystems and human health. Chemical and physical methods of controlling and remedying air, water, and soil pollutants will be covered. The role of environmental regulations in preventing and mitigating environmental degradation will also be covered. By the completion of this course, students will have acquired skills and techniques that can be utilized to examine environmental problems and their proposed solutions.

CHEM 322
Environmental Chemistry Laboratory 1 Unit
Prerequisite: None
Corequisite: CHEM 321
General Education: CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 soil, water and air samples for environmental quality parameters 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.

CHEM 400
General Chemistry 5 Units
Prerequisite: CHEM 300 with a grade of "C" or better; OR one year high school chemistry lecture and laboratory AND MATH 120 or the equivalent. Grade of "C" or better required to meet prerequisite.
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 108 hours LAB
This is a general college chemistry course intended for students majoring in the scientific disciplines including chemistry, biology, physics, geology and engineering. This course emphasizes the fundamental principles of chemistry. Topics include chemical measurement, physical and chemical processes, nomenclature, atomic structure, quantum theory, stoichiometry, molecular structure, bonding theory, physical properties of gases, thermochemistry, modern materials, and properties of solutions. (C-ID CHEM 110; C-ID CHEM 120S)
CHEM 401
General Chemistry 5 Units
Prerequisite: CHEM 400 with a grade of “C” or better
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 108 hours LAB
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. (C-ID CHEM 120S)

CHEM 420
Organic Chemistry 5 Units
Prerequisite: CHEM 401 with a grade of “C” or better
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC; 108 hours LAB
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 chemistry of alkanes/cycloalkanes, alkenes, alkyl halides, alcohols with emphasis on physical and chemical properties, nomenclature, stereochemistry, reaction mechanisms (SN1, SN2, E1, and E2) and spectroscopy (FT-IR and MS). Laboratory work includes characterization of organic molecules using analytical instrumentation such as FTIR, GC, and GC/MS. Modern separation and purification techniques are also introduced such as HPLC, Packed-column GC, and Capillary GC, as well as traditional techniques such as distillation, liquid-liquid extraction, recrystallization, column chromatography, and thin-layer chromatography. (C-ID CHEM 150; C-ID CHEM 160S)

CHEM 421
Organic Chemistry 5 Units
Prerequisite: CHEM 420 with a grade of “C” or better
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC; 108 hours LAB
This course is a continuation of CHEM 420. 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 spectroscopic techniques. In addition, an introduction to pericyclic reactions and biomolecules is presented. (C-ID CHEM 160S)

CHEM 495
Independent Studies in Chemistry 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

CHEM 498
Work Experience in Chemistry 1-4 units
Prerequisite: None
Hours: 60-300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

CHEM 499
Experimental Offering in Chemistry .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB

DEGREE
A.A.-T — Communication Studies for Transfer
A.A. — Communication, Organizational Communication

CERTIFICATE OF PROFICIENCY
Applied Communication Skills

Program Description
The role of 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. This transferable degree gives students a foundation that can be used in any career path, increasing one’s preparation for employment and transferability to a university.

Career Opportunities
Public Information  Human Resources Development
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  Corporate Training

Highlights
• Degree and Certificate programs
• Transfer requirements simultaneously met while pursuing degree
• For additional program information, contact any of our full time faculty:
  Ellen Arden-Ogle  (916) 691-7642
  Dan DuBray  (916) 691-7493
  Colette Harris-Mathews  (916) 691-7202
  Georgine Hodgkinson  (916) 691-7172
  Chris Wagner  (916) 691-7336

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/lpslo

Our courses are interdisciplinary in nature. Communication Studies offers students an opportunity to explore coursework in oral communication, critical thinking, social sciences, multicultural studies, and living skills.

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 Communication
  • Interpersonal Communication
**DEGREE**

**A.A.-T  Communication Studies for Transfer**  
**CODE #1966**

The Associate in Arts in Communication Studies for Transfer Degree prepares students for graduation from Cosumnes River College as well as transfer to a four-year university, including lower division preparation for the major. Courses required for the degree provide students with a practical as well as theoretical foundation in the discipline and offer a critical perspective on human communication in a variety of contexts. Students completing this program will explore the history and interdisciplinary nature of human communication, develop communication competency for a variety of contexts, compose and critically evaluate oral, written, and visual messages for diverse audiences, construct and defend arguments in support of a thesis, as well as demonstrate individual responsibility and integrity in all communication interactions.

**Note to Transfer Students:**
The Associate in Arts in Communication Studies for transfer degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

<table>
<thead>
<tr>
<th>REQUIRED PROGRAM</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 301*</td>
<td>Introduction to Public Speaking (3)</td>
</tr>
<tr>
<td><strong>6 units from the following:</strong></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td>COMM 311*</td>
<td>Argumentation and Debate (3)</td>
</tr>
<tr>
<td>COMM 321*</td>
<td>Interpersonal Communication (3)</td>
</tr>
<tr>
<td>COMM 331*</td>
<td>Group Discussion (3)</td>
</tr>
<tr>
<td><strong>6 units from the following:</strong></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td>COMM 315*</td>
<td>Persuasion (3)</td>
</tr>
<tr>
<td>COMM 321*</td>
<td>Interpersonal Communication (3)</td>
</tr>
<tr>
<td>- if not counted above</td>
<td></td>
</tr>
<tr>
<td>COMM 325*</td>
<td>Intercultural Communication (3)</td>
</tr>
<tr>
<td>COMM 331*</td>
<td>Group Discussion (3) - if not counted above</td>
</tr>
<tr>
<td>COMM 361*</td>
<td>The Communication Experience (3)</td>
</tr>
<tr>
<td>COMM 363*</td>
<td>Introduction to Communication Theory (3)</td>
</tr>
<tr>
<td>JOUR 310* or RTVF 300*</td>
<td>Mass Media and Society (3)</td>
</tr>
<tr>
<td><strong>3 units from the following:</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>ANTH 310*</td>
<td>Cultural Anthropology (3)</td>
</tr>
<tr>
<td>COMM 315*</td>
<td>Persuasion (3) - if not counted above</td>
</tr>
<tr>
<td>COMM 325*</td>
<td>Intercultural Communication (3)</td>
</tr>
<tr>
<td>- if not counted above</td>
<td></td>
</tr>
<tr>
<td>COMM 331*</td>
<td>Group Discussion (3) - if not counted above</td>
</tr>
<tr>
<td>COMM 341*</td>
<td>Organizational Communication (3)</td>
</tr>
<tr>
<td>COMM 361*</td>
<td>The Communication Experience (3)</td>
</tr>
<tr>
<td>- if not counted above</td>
<td></td>
</tr>
<tr>
<td>COMM 363*</td>
<td>Introduction to Communication Theory (3)</td>
</tr>
<tr>
<td>- if not counted above</td>
<td></td>
</tr>
<tr>
<td>ENGW 301*</td>
<td>College Composition and Literature (3)</td>
</tr>
<tr>
<td>ENGW 302*</td>
<td>Advanced Composition &amp; Critical Thinking (3)</td>
</tr>
<tr>
<td>JOUR 300</td>
<td>Newswriting and Reporting (3)</td>
</tr>
<tr>
<td>PSYC 300*</td>
<td>General Principles (3)</td>
</tr>
<tr>
<td>RTVF 312</td>
<td>Radio Studio Operations (3)</td>
</tr>
<tr>
<td>RTVF 331</td>
<td>Television Production (3)</td>
</tr>
<tr>
<td>SOC 300*</td>
<td>Introductory Sociology (3)</td>
</tr>
<tr>
<td><strong>TOTAL UNITS REQUIRED</strong></td>
<td><strong>18</strong></td>
</tr>
<tr>
<td><strong>DEGREE TOTAL (INCLUDING GE)</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

* Major courses which also fulfill a transfer General Education (GE) requirement (“double-counting”). Please note that there are limitations on double-counting — consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

1 Any transfer level communication (COMM) course listed that is completed in this category cannot be used to satisfy another part of the degree requirements.

2 Any transfer level communication (COMM) course listed that is completed in this category cannot be used to satisfy another part of the degree requirements.

**Associate in Arts in Communication Studies for Transfer Degree**
The Associate in Arts in Communication Studies for Transfer Degree (A.A.-T) may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.

**DEGREE**

**A.A.—Communication, Organizational Communication**  
**CODE #1348**

**REQUIRED PROGRAM**  
**Units**

| Core Courses: | 
|-----------------|-------|
| COMM 301* | Introduction to Public Speaking | 3 |
| COMM 311* | Argumentation and Debate | 3 |
| COMM 321* | Interpersonal Communication | 3 |
| COMM 325* | Intercultural Communication | 3 |
| COMM 331* | Group Discussion | 3 |
| COMM 341* | Organizational Communication | 3 |
| COMM 361* | The Communication Experience | 3 |
| COMM 363* | Introduction to Communication Theory | 3 |
| JOUR 310* | Mass Media and Society | 4 |
| **Written Communication (6 units):** | **6** |
| ENGW 300 | College Composition | 3 |
| ENGW 302 | Advanced Composition & Critical Thinking | 3 |
| BUS 330 | Managing Diversity in the Workplace | 3 |
| MGMT 360 | Management Communication | 3 |
| SGVT 315 | Dynamics of Leadership | 3 |
| **TOTAL UNITS REQUIRED** | **30** |

3 Or 3 units earned through any department approved internship - internships may be arranged through the CRC Co-op Work Experience program, and credit may be received by enrolling in WEXP 498, Work Experience in (Subject).

**Suggested Electives:**

- ARTH 300
- HUM 300
- RTVF 331
- TA 476

**Associate Degree**
The Communication, Organizational Communication Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF PROFICIENCY
Applied Communication Skills
CODE #1356

This certificate program provides the communication skills necessary for entry-level positions in business, and helps improve managerial attributes with an emphasis on abilities to communicate effectively, efficiently and appropriately in organizational settings. Students with this certificate are prepared to design messages based on analysis of the intended audience and cultural context, apply effective listening skills, analyze persuasive messages, and demonstrate effective oral presentation skills. The certificate prepares students with the skills necessary to demonstrate proficiency in different communication settings by identifying and appraising factors that affect organizational communication structures in small group, interpersonal and intercultural settings.

REQUIRED PROGRAM.......................................................... Units
A minimum of 15 units from the following: ......................... 15
COMM 301 Introduction to Public Speaking (3)
COMM 311 Argumentation and Debate (3)
COMM 315 Persuasion (3)
COMM 321 Interpersonal Communication (3)
COMM 325 Intercultural Communication (3)
COMM 331 Group Discussion (3)
COMM 341 Organizational Communication (3)
COMM 361 The Communication Experience (3)

TOTAL UNITS REQUIRED.................................................. 15

It is recommended that one of the courses completed should meet the general education requirement of oral communication, which is either COMM 301, or 331, or 361.

COMMUNICATION STUDIES (COMM)

COMM 301
Introduction to Public Speaking 3 Units
Prerequisite: None
Advisory: ENGW 51
General Education: AA/AS Area II(b); CSU Area A1; IGETC Area 1C
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course prepares students to speak in a variety of rhetorical situations: as college students, as employees, as opinion leaders in the community. The course is designed to assist students in developing effective delivery, ethical research methodology, analytical thinking and listening skills, organization and outlining skills, and appropriate presentation skills. Emphasis is on researching, preparing, organizing, and presenting a variety of speeches for different audiences. Videotaping equipment may be used as an aid to the student’s self-analysis and improvement. Access to a computer with online capabilities may be required and computer access is available on campus. (C-ID COMM 110)

COMM 311
Argumentation and Debate 3 Units
Prerequisite: ENGW 300 with a grade of “C” or better
General Education: AA/AS Area III(b); CSU Area A3; IGETC Area 1B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course introduces students to argumentation, critical evaluation of evidence, and reasoning in the context of debate. A series of writing assignments will focus on the skills of critical thinking, rhetoric, and the sophistication of argumentative skills. Intended as a practical course, the fundamentals of proposition analysis, case building and dissent are discussed and applied within written communication and oral presentation. Videotaping equipment may be used as an aid to the student’s self-analysis and improvement. Access to a computer with online capabilities may be required and computer access is available on campus. (C-ID COMM 120)

COMM 315
Persuasion 3 Units
Prerequisite: ENGW 300 with a grade of “C” or better
General Education: AA/AS Area II(b); CSU Area A3; IGETC Area 1B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course presents fundamental theories and techniques of persuasion as they occur in various communication contexts, including commercial, interpersonal, public and mass media. A series of writing assignments will focus on the skills of critical thinking, persuasion, and the sophistication of argumentative essay skills. Essays of advanced composition shall be evaluated for their quality in both critical thinking and composition. Theoretical models of critical thinking and communication studies shall be applied to rhetoric, examining message production, analyzing messages, and exploring the fields of electronic and print media, advertising (product campaign), political campaign strategy, and ideological campaign techniques for mass communication to consider the political, cultural and social impact of persuasion. Students explore ethical considerations of persuasive communication, learn about types of reasoning, and identify fallacious arguments as they occur in persuasion. Access to a computer with online capabilities may be required and computer access is available on campus.
COMM 321  
Interpersonal Communication  3 Units  
Prerequisite: None  
Advisory: ENGWR 51  
General Education: AA/AS Area II(b); CSU Area E1  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course will explore and apply models and theories of interpersonal communication in a variety of personal and professional contexts. Using simulations and structured exercises, students develop a deeper understanding of communication concepts associated with developing and maintaining satisfying interpersonal relationships. Additionally, students will focus on communication competency through a heightened awareness of the complexity of interpersonal communication during verbal and nonverbal transactions and the development of skills as both senders and receivers of shared messages. Videotaping equipment may be used as an aid to the student’s self-analysis and improvement. Access to a computer with online capabilities may be required and computer access is available on campus. (C-ID COMM 130)

COMM 325  
Intercultural Communication  3 Units  
Prerequisite: None  
Advisory: ENGWR 101; or equivalent skills demonstrated through the assessment process.  
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D7; IGETC Area 4G  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 54 hours LEC  
This course introduces students to the influence of culture on identity, perception, social organization, language and nonverbal messages in intercultural experiences 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. Access to a computer with online capabilities may be required and computer access is available on campus. (C-ID COMM 150)

COMM 331  
Group Discussion  3 Units  
Prerequisite: None  
Advisory: ENGWR 51  
General Education: AA/AS Area II(b); CSU Area A1; IGETC Area 1C  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 54 hours LEC  
This course is designed to increase students’ understanding of group communication and to prepare students to function more effectively in various types of groups, as college students, employees, as members in the community. The course is designed to assist students in developing an understanding of how group communication is uniquely different from other communication. Oral communication techniques within group settings will be analyzed in depth and assignments will include oral presentations (individual and group). The course will enhance students’ effectiveness in the small group dynamics of roles, functions, leadership and norms. Problem-solving and decision-making skills are emphasized through simulations and discussion. Group projects may require students to meet outside of class time for service learning or campus activities. Videotaping equipment may be used as an aid to the student’s self-analysis and improvement. Access to a computer with online capabilities may be required and computer access is available on campus. (C-ID COMM 140)

COMM 341  
Organizational Communication  3 Units  
Prerequisite: ENGWR 101 with a grade of “C” or better  
General Education: AA/AS Area V(b); CSU Area D7  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course is designed to allow students to examine both theoretical and pragmatic essentials of effective organizational messages from preparation and presentation to efficacious observation and analysis. Students will explore the dynamics of organizational communications in basic communication skills, working relationships, leadership, diversity in the workplace, conflict negotiation teams and problem solving and/or decision making groups. The roles of internal and external messages on the communication process and organizational effectiveness will be examined and analyzed. Access to a computer with on-line capabilities may be required and computer access is available on campus.

COMM 361  
The Communication Experience  3 Units  
Prerequisite: None  
Advisory: ENGWR 51  
General Education: AA/AS Area II(b); CSU Area A1; IGETC Area 1C  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 54 hours LEC  
This course introduces students to the fundamental concepts necessary for effective communication in a variety of settings with a variety of audiences. Special emphasis is placed on practical experiences within groups, facilitation of interpersonal relationships, and methods of conflict management. As part of this course, students are required to actively participate in groups and deliver oral presentations, both individually and in groups. Videotaping equipment may be used as an aid to the student’s self-analysis and improvement. Access to a computer with online capabilities may be required and computer access is available on campus.

COMM 363  
Introduction to Communication Theory  3 Units  
Prerequisite: None  
Advisory: ENGWR 101  
General Education: AA/AS Area II(b); CSU Area D7  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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. Access to a computer with online capabilities may be required and computer access is available on campus. (C-ID COMM 180)
COMM 480
Honors Seminar: Political Campaign Communication  3 Units
Same As: HONOR 340
Prerequisite: ENGWR 300 with a grade of “C” or better
General Education: AA/AS Area V(b); CSU Area D7; CSU Area D8;
IGETC Area 4G
Enrollment Limitation: Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the Cosumnes River College Catalog.
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 honors student interested in learning about political communication, rhetorical criticism, and techniques for writing for academic audiences. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as HONOR 340, and only one may be taken for credit.

COMM 494
Topics in Communication  .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 72 hours LEC
This course is designed to allow a student to focus on a set of contemporary communication concepts or theoretical frameworks in communication studies. Possible options for topics may include, but are not limited to: extemporaneous speaking, intercultural communication in the workplace or diverse settings, stages within interpersonal relationships, communication in the classroom, conflict, principles of visual communication, nonverbal communication, readers' theater, rhetorical criticism, parliamentary procedure and decision making techniques. Consult class schedule for specific topics offered.

COMM 495
Independent Studies in Communication  1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

COMM 499
Experimental Offering in Communication  .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
DEGREES
A.S.—Computer Science
A.S.—CIS, Information Systems Security
A.S.—CIS, Server Administrator
A.S.—CIS, Enterprise Administrator
A.S.—Management Information Systems

CERTIFICATES OF ACHIEVEMENT
CIS — Computer Programmer - SQL
CIS — Relational Database Administration
CIS — Web Programming
CIS — Server Administrator
CIS — Enterprise Administrator
CIS — Programming C/C++
CIS — Information Systems Security
CIS — Desktop Publishing
MIS — Application Expert
MIS — Application Master

CERTIFICATES OF PROFICIENCY
CIS — Database Analyst - SQL
CIS — Database Design
CIS — Software Development Using Visual BASIC.NET
CIS — Software Development with JAVA
CIS — Web Publishing
CIS — Network Helpdesk Technician
MIS — Application Specialist

See also:
Professional Applications of Geographic Information Systems (GIS) (Computer Science emphasis)
(Geography Program)

Program Description
CRC computer information science programs include study in computer programming, information systems security, computer networking, management information systems, and computer applications. A wide range of degree and certificate programs are available to meet the needs of transfer students who plan to complete a four-year degree as well as career/technical students who plan to enter the workforce. Several of the programs are designed to promote a career ladder from certificate to associate degree to university transfer. Other programs are designed to upgrade the skill set of working IT professionals. All program options are designed with advice from business and industry representatives and conform to industry standards. For more information, refer to specific information about each program in the pages that follow. Transfer students should see a counselor to develop an educational plan based upon the specific requirements of the intended transfer institution.

Please review the CIS “Curriculum Prerequisite Hierarchy” for each program of study as you plan your course taking pattern.

Career Opportunities

Some Career Opportunities may require more than two years of college study.

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 TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree. If you are interested in majoring in Computer Science after transfer, see recommended “CIS Programming Course Sequence” on page 137.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

See page 153 for “CIS Curriculum Prerequisite Hierarchy”
DEGREE
A.S.—Computer Science
CODE #1066

This program provides a foundation in algorithm development, programming techniques, data structures, and structured problem solving.

This A.S. Degree would be appropriate for a student planning to transfer to the California State University (CSU) or the University of California (UC) to major in either Computer Science or Computer Engineering.

It is critical that transfer students regularly meet with a CRC counselor and the CRC programming faculty to select specific CRC courses that match university degree requirements.

REQUIRED PROGRAM.......................................................... Units
1st Semester:
CISP  300  Algorithm Design/Problem Solving..................... 3
2nd Semester:
CISP  360  Introduction to Structured Programming............... 4
3rd Semester:
CISP  400  Object Oriented Programming with C++............. 4
Spring Semester only:
CISP  310  Assembly Language Programming for Microcomputers .......................................................... 4
4th Semester:
CISP  430  Data Structures.............................................. 4
Fall Semester in odd-numbered years only:
CISP  440  Discrete Structures for Computer Science........ 3
TOTAL UNITS REQUIRED........................................... 22

1 The corequisite for this course can be applied to the CRC graduation requirements.

Suggested Electives:
CISC  302  Computer Familiarization
CISC  310  Introduction to Computer Information Science
CISP  350  Database Programming
CISP  370  Beginning Visual Basic

Associate Degree
The CIS - Computer Science Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

DEGREE
A.S.—Computer Information Science:
Server Administrator
CODE #1621

This degree is designed for networking professionals who want to manage the components of a network system, based on the Microsoft Windows platform and Microsoft server software, on an ongoing basis; monitor and optimize the components of a network system; and diagnose and resolve problems regarding the components of a network system.

REQUIRED PROGRAM.......................................................... Units
CISC  323  Linux Operating System.................................... 1
CISC  324  Intermediate Linux Operating System................ 1
CISC  356  Introduction to Local Area Networks.................... 1.5
CISC  498  Work Experience in Computer Information Science - Core ...................................................... 1 - 4
CompTIA Network+:............................................................... 3
CompTIA Security+:.............................................................. 3
CompTIA Server+:............................................................... 3
CISN  300  Network Systems Administration....................... 3
70-640: TS: Windows Server 2008 Active Directory, Configuring: 3
CISN  306  Advanced Network Systems Administration........ 3
70-642: TS: Windows Server 2008 Network Infrastructure Configuring:
CISN  308  Internetworking with TCP/IP............................. 3
70-646: Pro: Windows Server 2008 Administrator:
CISN  320  Designing Windows Directory Services.............. 3

Required Elective:
A minimum of 3 units from the following:................................. 3
CISN  301  Network Client Systems Administration (3)
CISN  302  Intermediate Network Systems Administration (3)
CISN  303  Network Administration - Linux Server (3)
CISN  374  Messaging Server Administration (3)
CISN  378  Database Administration for Microsoft SQL Server (3)
CISN  499  Experimental Offering in Computer Information Science - Networking (0.5 - 4)
CISP  370  Beginning Visual Basic (4)
CISS  342  Implementing Linux Operating System Security (3)
TOTAL UNITS REQUIRED:.................................................. 25.5-28.5

Associate Degree
The CIS – Server Administrator Associate in Science (A.S.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
DEGREE
A.S. — Computer Information Science, Information Systems Security

CODE #1535

This degree is designed to give students currently employed as an Information Technology (IT) Professional the additional skill sets necessary to work in this rapidly growing field. This degree covers some of the critical skill sets for the International Information Systems Security Certification Consortium (ISC)² Certified Information Systems Security Professional (CISSP) exam, which is recognized as an international standard for an Information Systems Security (ISS) Professional.

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 498</td>
<td>Work Experience in Computer Information Science – Core</td>
<td>1-4</td>
</tr>
</tbody>
</table>

Prerequisites:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 323</td>
<td>Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISC 324</td>
<td>Intermediate Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISC 356</td>
<td>Introduction to Local Area Networks</td>
<td>1.5</td>
</tr>
</tbody>
</table>

CompTIA Server+:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISN 300</td>
<td>Network Systems Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

Windows Client:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISN 301</td>
<td>Network Client Systems Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

CompTIA Network+:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISN 330</td>
<td>Data Communication &amp; Networking Fundamentals</td>
<td>3</td>
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</tbody>
</table>

(ISC)² CISSP INFORMATION SYSTEMS SECURITY DOMAINS:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISS 301</td>
<td>Ethical Hacking</td>
<td>2</td>
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</tbody>
</table>

Security Architecture & Models:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CISS 310</td>
<td>Network Security Fundamentals</td>
<td>3</td>
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</table>

Access Control Systems & Methodology:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISS 320</td>
<td>Implementing Network Security &amp; Counter Measures</td>
<td>3</td>
</tr>
</tbody>
</table>

Telecommunications, Network & Internet Security:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISS 330</td>
<td>Implementing Internet Security and Firewalls</td>
<td>3</td>
</tr>
</tbody>
</table>

Operating System Security:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISS 341</td>
<td>Implementing Windows Operating System Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>or CISS 342</td>
<td>Implementing Linux Operating System Security (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

Security Management Practices:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISS 350</td>
<td>Disaster Recovery</td>
<td>3</td>
</tr>
</tbody>
</table>

Law, Investigation, & Ethics:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CISP 360</td>
<td>Computer Forensics and Investigation</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED: 33.5 - 36.5

Suggested Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 310; BUS 310; COMM 301; MATH 343; CISC 310, CISC 498</td>
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</tbody>
</table>

Associate Degree

The CIS - Information Systems Security Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

Guideline to students: Certified Information Systems Security Professional (CISSP) candidates are required to satisfy all ten security domains to pass this certification. It is recommended that students use the following information to guide them in their selection of the appropriate course(s) for their personal and/or professional needs.

Take these courses for these CISSP domain skill sets:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISS 310</td>
<td>Security Architecture &amp; Models</td>
</tr>
<tr>
<td>CISS 320</td>
<td>Access Control Systems &amp; Methodology</td>
</tr>
<tr>
<td>CISS 330</td>
<td>Telecommunications, Network &amp; Internet Security</td>
</tr>
<tr>
<td>CISS 341/342</td>
<td>Operations Security</td>
</tr>
<tr>
<td>CISS 350</td>
<td>Security Management Practices</td>
</tr>
<tr>
<td>CISS 360</td>
<td>Law, Investigation &amp; Ethics</td>
</tr>
</tbody>
</table>

DEGREE
A.S. — Computer Information Science: Enterprise Administrator

CODE #1620

This degree is designed for networking professionals who want to analyze the business requirements for a network system; design a network system solution that meets business requirements; deploy, install and configure the components of a network system based on the Microsoft Windows platform and Microsoft server software; manage the components of a network system on an ongoing basis; monitor and optimize the components of a network system; and diagnose and resolve problems regarding the components of a network system.

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 323</td>
<td>Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISC 324</td>
<td>Intermediate Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISC 356</td>
<td>Introduction to Local Area Networks</td>
<td>1.5</td>
</tr>
<tr>
<td>CISC 498</td>
<td>Work Experience in Computer Information Science – Core</td>
<td>1 - 4</td>
</tr>
</tbody>
</table>

CompTIA Network+:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CISN 330</td>
<td>Data Communication &amp; Networking Fundamentals</td>
<td>3</td>
</tr>
</tbody>
</table>

Programming Requirement:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CISP 300</td>
<td>Algorithm Design/Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>CISP 370</td>
<td>Beginning Visual Basic</td>
<td>4</td>
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</table>

CompTIA Security+:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISS 310</td>
<td>Network Security Fundamentals</td>
<td>3</td>
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</table>

CompTIA Server+:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CISN 300</td>
<td>Network Systems Administration</td>
<td>3</td>
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</table>

70-680: TS: Windows 7, Configuring:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CISN 301</td>
<td>Network Client Systems Administration</td>
<td>3</td>
</tr>
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</table>

70-643 TS: Windows Server 2008 Applications Platform, Configuring:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CISN 302</td>
<td>Intermediate Network Systems Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

70-640: TS: Windows Server 2008 Active Directory, Configuring:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISN 306</td>
<td>Advanced Network Systems Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

70-642: TS: Windows Server 2008 Network Infrastructure, Configuring:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISN 308</td>
<td>Internetworking with TCP/IP</td>
<td>3</td>
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</table>

70-647: Pro: Windows Server 2008 Enterprise Administrator:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISN 324</td>
<td>Designing Windows Networking Services</td>
<td>3</td>
</tr>
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</table>

Required Elective:

A minimum of 3 units from the following: | Units |

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISN 303</td>
<td>Network Administration - Linux Server (3)</td>
<td>3</td>
</tr>
<tr>
<td>CISN 374</td>
<td>Messaging Server Administration (3)</td>
<td>3</td>
</tr>
<tr>
<td>CISN 378</td>
<td>Database Administration for Microsoft SQL Server (3)</td>
<td>3</td>
</tr>
<tr>
<td>CISN 499</td>
<td>Experimental Offering in Computer Information Science - Networking (0.5-4)</td>
<td>3</td>
</tr>
<tr>
<td>CIS 341</td>
<td>Implementing Windows Operating System Security (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED: 38.5-41.5

Associate in Science Degree

The CIS - Enterprise Administrator Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
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. This degree also meets some of Sacramento State’s lower-division coursework for a BS in Business Administration with a Management concentration.

REQUIRED PROGRAM.................................................. Units
ACCT 301 Financial Accounting........................................ 4
ACCT 311 Managerial Accounting..................................... 4

Economics:
ECON 302 Principles of Macroeconomics.......................... 3
ECON 304 Principles of Microeconomics.............................. 3

Mathematics:
MATH 343 Modern Business Mathematics............................ 4
STAT 300 Introduction to Probability and Statistics.............. 4

Computer Information Science:
CISC 308 Exploring Computer Environments and the Internet.. 1
CISA 308 Exploring Word Processing & Presentation Software.. 1
CISA 318 Exploring Spreadsheet Software.......................... 1
CISP 300 Algorithm Design/Problem Solving........................ 3
CISP 370 Beginning Visual Basic...................................... 4
CISP 300 Introduction to Information Systems Security........... 1

Required Electives:
A minimum of 6 units from the following:.......................... 6
BUS 300 Introduction to Business (3)
CISC 310 Introduction to Computer Information Science (3)
CISP 371 Intermediate Visual Basic (4)
CISS 310 Network Security Fundamentals (3)
MGMT 362 Techniques of Management (3)
MKT 300 Principles of Marketing (3)

TOTAL UNITS REQUIRED............................................. 39

Suggested Electives:
PHIL 310; BUS 310; ENGR 300; WEXP 498; BUS 330, BUS 345;
SOC 321

Associate Degree
The Management Information Systems Associate in Science (A.S.)
Degree may be obtained by completion of the required program and
general requirements as well as sufficient electives to meet a 60-unit
total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Computer Information Science -
Programming in C/C++
CODE #1070

REQUIRED PROGRAM.................................................. Units
CISP 300 Algorithm Design/Problem Solving...................... 3
CISP 360 Introduction to Structured Programming................ 4
CISP 400 Object Oriented Programming with C++.................. 4
CISP 430 Data Structures............................................. 4

4 units from the following:........................................... 4
CISP 370 Beginning Visual Basic (4)
CISP 401 Object Oriented Programming with Java (4)
CISP 405 Object Oriented Programming using C# on Visual Studio .NET (4)

TOTAL REQUIRED UNITS:.............................................. 19

CERTIFICATE OF ACHIEVEMENT
Desktop Publishing
CODE #1073

REQUIRED PROGRAM.................................................. Units
RTVF 304 Introduction to Multimedia................................. 3
JOUR 355 Media Writing................................................ 1
CISC 302/JOUR 330 Computer Familiarization..................... 2
CISA 305 Beginning Word Processing................................. 2
CISA 340 Presentation Graphics...................................... 2
CISA 330 Desktop Publishing or
JOUR 335 Intro to Desktop Publishing.............................. 2
CISA 331 Intermediate Desktop Publishing or
JOUR 336 Intermediate Desktop Publishing....................... 2
MKT 300 Principles of Marketing.................................... 3
MKT 314/RTVF 376 Advertising....................................... 3

Plus six units selected from:......................................... 6
ART 320 Design Fundamentals (3)
JOUR 404 Editing and Production (3)
JOUR 340 Writing for Publication (3)
PHOTO 301/ARTPH 301 Beginning Photography (3)
PHOTO 302 Commercial & Advertising Photography (3)
PHOTO 400 Digital Imaging (3)

TOTAL UNITS REQUIRED............................................. 26

CERTIFICATE OF PROFICIENCY
Computer Information Science -
Network Helpdesk Technician
CODE #1552

This certificate provides students the information necessary to obtain an entry-level career in the field of networking. Upon completion of this certificate, students will understand helpdesk concepts and responsibilities, hardware and software troubleshooting, and technical communication skills. The fundamentals of supporting end users and a Local Area Network (LAN) will also be emphasized.

REQUIRED PROGRAM.................................................. Units
CISN 300 Computer Systems Administration........................ 3
Windows Client:
CISN 301 Network Client Systems Administration ............... 3
Windows Server:
CISN 302 Intermediate Network Systems Administration ....... 3
CompTIA Network+:
CISN 330 Data Communication and Networking Fundamentals.... 3

Capstone Course:
CISN 490 Networking Helpdesk Practicum.......................... 2
Security Course:
CISN 300 Introduction to Information Systems Security......... 1

Electives:
A minimum of 2 units from the following:........................ 2
CISC 360 Microcomputer Support and Maintenance (4)
CISC 498 Work Experience in Computer Information Science – Core (1-4)
CISN 303 Network Administration – Linux Server (3)
CISS 301 Ethical Hacking (2)
CISN 310 Network Security Fundamentals (3)

TOTAL UNITS REQUIRED............................................. 17
CERTIFICATE OF ACHIEVEMENT
Computer Information Science - Database Analyst - SQL
CODE #1496

This certificate is designed for beginning students as well as technical professionals who aspire to design, create, or administer relational databases and create client applications. Successful students will be prepared to apply for entry-level positions for industry such as business analyst. The Database Analyst Certificate is the first in a series of three certificate programs designed for the entry-level student and business user.

REQUIRED PROGRAM.................................................. Units
CISC 310 Introduction to Computer Information Science........ 3
CISC 323 Linux Operating System............................. 1
CISC 324 Intermediate Linux Operating System............... 1
CISP 300 Algorithm Design/Problem Solving................. 3
CISP 351 Introduction to Relational Database Design & SQL... 3
CISP 352 Intermediate SQL...................................... 3
TOTAL UNITS REQUIRED........................................... 14

CERTIFICATE OF ACHIEVEMENT
Computer Information Science - Server Administrator
CODE #1621

This certificate is designed for Network Helpdesk Technicians who want to gain additional skill-sets to become a Windows Server Administrator. Some of the skill-sets that are necessary for this job include the ability to deploy, install, and configure the components of a network system based on the Microsoft Windows platform and Microsoft server software; the ability to manage the components of a network system on an ongoing basis; the ability to monitor and optimize the components of a network system; and the ability to diagnose and resolve problems regarding the components of a network system.

REQUIRED PROGRAM.................................................. Units
CISC 323 Linux Operating System............................. 1
CISC 324 Intermediate Linux Operating System............... 1
CISC 356 Introduction to Local Area Networks............... 1.5
CISS 330 Introduction to Information Systems Security.... 1
CompTIA Network+: ............................................. 3
CISN 330 Data Communication and Networking Fundamentals. 3
CompTIA Server+: .................................................. 3
CISN 300 Network Systems Administration.................. 3
CISN 306 Advanced Network Systems Administration.... 3
70-642: TS: Windows Server 2008 Network Administering in CIS - Core (1-4)................. 3
70-660: Pro: Windows Server 2008 Administrator:..... 3
CISN 320 Designing Windows Directory Services............... 3
Required Elective: ................................................... 3
A minimum of 3 units from the following: ..................... 3
CISC 498 Work Experience in CIS - Core (1-4)................. 3
CISN 301 Network Client Systems Administration (3)........ 3
CISN 302 Intermediate Network Systems Administration (3)3
CISN 303 Network Administration - Linux Server (3)........ 3
CISN 374 Messaging Server Administration (3)............ 3
CISN 377 Database Administration for Microsoft SQL Server (3)3
CISN 439 Experimental Offering in CIS-Networking (0.5-4).................. 1
CISS 310 Network Security Fundamentals (3).............. 1
TOTAL UNITS REQUIRED........................................... 28.5

Guidelines to Students: Microsoft Certified IT Professional (MCITP) Enterprise Administrator candidates on the Microsoft Windows Server (tm) 2008 track are required to satisfy five industry certification exams (70-620 or 70-624, 70-643, 70-642, 70-640 and 70-647). It is recommended that students use their best judgment and talk to a counselor or a CIS instructor to help guide them with their selection of the appropriate courses for their personal and/or professional needs.

CERTIFICATE OF ACHIEVEMENT
Computer Information Science - Enterprise Administrator
CODE #1620

This certificate is designed for Server Administrators who want to gain additional skill-sets to become an Enterprise Administrator. Some of the skill-sets that are necessary for this job include the ability to analyze the business requirements for a network system; design a network system solution that meets business requirements; deploy, install, and configure the components of a network system based on the Microsoft Windows platform and Microsoft server software; manage the components of a network system on an ongoing basis; monitor and optimize the components of a network system; and diagnose and resolve problems regarding the components of a network system.

REQUIRED PROGRAM.................................................. Units
CISC 323 Linux Operating System............................. 1
CISC 324 Intermediate Linux Operating System............... 1
CISC 356 Introduction to Local Area Networks............... 1.5
CISS 300 Introduction to Information Systems Security.... 1
CompTIA Network+: ............................................. 3
CISN 330 Data Communication & Networking Fundamentals.... 3
CompTIA Server+: .................................................. 3
CISN 300 Network Systems Administration.................. 3
CISN 306 Advanced Network Systems Administration.... 3
CISN 307 Advanced Network Systems Administration.... 3
CISN 308 Internetworking with TCP/IP.......................... 3
70-647: Pro: Windows Server 2008 Enterprise Administrator: 3
CISN 324 Designing Windows Networking Services............... 3
Required Elective: ................................................... 3
A minimum of 3 units from the following: ..................... 3
CISC 498 Work Experience in Computer Information Science – Core (1-4)................. 3
CISN 301 Network Administration - Linux Server (3)........ 3
CISN 374 Messaging Server Administration (3)............ 3
CISN 377 Database Administration for Microsoft SQL Server (3)3
CISN 499 Experimental Offering in Computer Information Science – Networking (0.5-4).................. 1
CISS 310 Network Security Fundamentals (3).............. 1
TOTAL UNITS REQUIRED........................................... 28.5

Guidelines to Students: Microsoft Certified IT Professional (MCITP) Enterprise Administrator candidates on the Microsoft Windows Server (tm) 2008 track are required to satisfy five industry certification exams (70-620 or 70-624, 70-643, 70-642, 70-640 and 70-647). It is recommended that students use their best judgment and talk to a counselor or a CIS instructor to help guide them with their selection of the appropriate courses for their personal and/or professional needs.
CERTIFICATE OF ACHIEVEMENT
Computer Information Science - SQL
CODE #1497

This certificate is designed for students who have completed the Database Analyst - SQL Certificate and aspire to be entry level programmers using the Structured Query Language (SQL). This is the second in a series of three certificate programs in Relational Database Management Systems.

REQUIRED PROGRAM................................................. Units
CISC 310 Introduction to Computer Information Science........ 3
CISC 323 Linux Operating System........................................... 1
CISC 324 Intermediate Linux Operating System............... 1
CISP 300 Algorithm Design/Problem Solving....................... 3
CISP 351 Introduction to Relational Database Design & SQL........ 3
CISP 352 Intermediate SQL.................................................. 3
CISP 353 Application Development in a Client Server Environment........ 3

A minimum of 2 units from the following: ........................ 2
CISP 370 Beginning Visual Basic (4) or CISA 320 Introduction to Database Management (1)
or CISA 321 Intermediate Database Management (1)

TOTAL UNITS REQUIRED............................................ 19

CERTIFICATE OF ACHIEVEMENT
Computer Information Science - Web Programming
CODE #1500

This certificate prepare students to design, develop, support, and maintain corporate level Web pages and full Web sites at the level of the Intranet or Internet. Additionally, this certificate will prepare students to design and develop database management applications to support Web-based commercial objectives.

REQUIRED PROGRAM......................................................... Units
BUS 100 English for the Professional........................................ 3
CISP 300 Algorithm Design/Problem Solving.......................... 3
CISA 320 Introduction to Database Management..................... 1
CISC 308 Exploring Computer Environments and the Internet.... 1
or CISC 323 Linux Operating System
CISC 324 Intermediate Linux Operating System............... 1
CISW 300 Web Publishing...................................................... 3
CISW 400 Client-side Web Scripting....................................... 4
CISW 410 Middleware Web Scripting..................................... 4
CISP 360 Introduction to Structured Programming.................. 4
CISP 350 Database Programming........................................... 3

A minimum of 5 units from the following:.............................. 5
CISW 440 XML: Introduction to Extensible Markup Language (2)
CISW 420 Server-side Web Scripting (4)
CISW 310 Advanced Web Publishing (4)
CISA 321 Intermediate Database Management (1)
CISW 304 Cascading Style Sheets (2)

TOTAL UNITS REQUIRED............................................... 32

1 Unix Operating System
2 C or C#

Suggested Electives:
CISC 305, CISC 308, CISC 310; CISW 321

CERTIFICATE OF ACHIEVEMENT
Computer Information Science - Information Systems Security
CODE #1535

This certificate is designed to give students currently employed as an Information Technology (IT) professional or those currently working on their Networking degree the additional skill sets necessary to work in this rapidly growing field. This certificate covers some of the critical skill sets for the International Information Systems Security Certification Consortium (ISC)2’s Certified Information Systems Security Professional (CISSP) certification, which is recognized as an international standard for the Information Systems Security (ISS) professional.

REQUIRED PROGRAM......................................................... Units
Prerequisites:
CISC 323 Linux Operating System.............................. 1
CISC 324 Intermediate Linux Operating System............... 1
CISC 356 Introduction to Local Area Networks.................. 1.5

CompTIA Network+:
CISN 330 Data Communication & Networking Fundamentals.... 3

(CISSP) INFORMATION SYSTEMS SECURITY DOMAINS:
CISS 301 Ethical Hacking.................................................. 2

Security Architecture & Models:
CISS 310 Network Security Fundamentals.......................... 3

Access Control Systems & Methodology:
CISS 320 Implementing Network Security & Counter Measures... 3

Telecommunications, Network & Internet Security:
CISS 330 Implementing Internet Security and Firewalls........ 3

Operating System Security:
CISS 341 Implementing Windows Operating System Security (3)
or CISS 342 Implementing Linux Operating System Security (3)........ 3

Security Management Practices or Law, Investigation & Ethics:
CISS 350 Disaster Recovery (3)
or CISS 360 Computer Forensics and Investigation (3)........... 3

TOTAL UNITS REQUIRED.............................................. 23.5

Guideline to students: Certified Information Systems Security Professional (CISSP) candidates are required to satisfy all ten security domains to pass this certification. It is recommended that students use the following information to guide them in their selection of the appropriate course(s) for their personal and/or professional needs.

Take these courses for these CISSP domain skill sets:

<table>
<thead>
<tr>
<th>CISS Course</th>
<th>Required Skill Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISS 310</td>
<td>Security Architecture &amp; Models</td>
</tr>
<tr>
<td>CISS 320</td>
<td>Access Control Systems &amp; Methodology</td>
</tr>
<tr>
<td>CISS 330</td>
<td>Telecommunications, Network &amp; Internet Security</td>
</tr>
<tr>
<td>CISS 341/342</td>
<td>Operations Security</td>
</tr>
<tr>
<td>CISS 350</td>
<td>Security Management Practices</td>
</tr>
<tr>
<td>CISS 360</td>
<td>Law, Investigation &amp; Ethics</td>
</tr>
</tbody>
</table>
CERTIFICATE OF ACHIEVEMENT
Computer Information Science - Relational Database Administration
CODE #1498

The Relational Database Administration Certificate is designed for a person who is responsible for interacting with SQL Programmers, Database Designers, Systems Administrators, and Network Engineers as well as the day-to-day operation of a Relational Database Management System. This course of study is appropriate for an entry level Database Administration position. Courses used towards the completion of the Computer Programmer - SQL certificate may also be used to satisfy the requirements of this certificate.

REQUIRED PROGRAM .................................................. Units
CISC 310 Introduction to Computer Information Science ......... 3
CISA 320 Introduction to Database Management ............... 3
CISC 321 Intermediate Database Management .................. 1
CISC 323 Linux Operating System .................................. 1
CISC 324 Intermediate Linux Operating System ................. 1
CISP 300 Algorithm Design/Problem Solving ................. 3
CISP 351 Introduction to Relational Database Design & SQL .... 3
CISP 352 Intermediate SQL ........................................ 3
CISP 354 Introduction to Relational Database Administration .... 3

TOTAL UNITS REQUIRED ........................................... 19

CERTIFICATE OF ACHIEVEMENT
Management Information Systems - Application Expert
CODE #1075

This certificate is designed for students who need to know how to use some of the more popular office applications used today. Students who want to continue their education by pursuing another Business Technology, Computer Information Science or Management Information Systems certificate may do so without repeating any courses completed for this certificate.

REQUIRED PROGRAM .................................................. Units
Core Program:
BUSTEC 101 Computer Keyboarding: 10-Key ..................... 1
BUSTEC 110 Business Procedures for Professional Success ....... 3
BUSTEC 302 Computer-Keyboarding ................................ 2
BUSTEC 303 Computer-Keyboard Formatting .................... 2
BUS 310 Business Communications ............................. 3
CISC 302 Computer Familiarization (2)
or CISC 308 Exploring Computer Environments & the Internet (1)
or CISC 310 Introduction to Computer Information Science (3) ... 1-3

Word Processing:
CISA 305 Beginning Word Processing .......................... 2
CISA 306 Intermediate Word Processing ...................... 2

Spreadsheets:
CISA 315 Introduction to Electronic Spreadsheets .......... 2
CISA 316 Intermediate Electronic Spreadsheets ............. 2

Presentation:
CISA 340 Presentation Graphics ................................ 2

TOTAL UNITS REQUIRED ........................................... 22-24
CERTIFICATE OF PROFICIENCY
Computer Information Science - Database Design
CODE #1545

This certificate aims at preparing the students to understand entire database design, programming methodology and lifecycle. This certificate is designed for the student who requires programming skills in Relational Database Management Systems (RDBMS) and Structured Query Language (SQL) techniques using ORACLE and or Microsoft Access.

REQUIRED PROGRAM............................................................................ Units
Database Core:
CISA 320 Introduction to Database Management ................................ 1
CISA 321 Intermediate Database Management.................................. 1
CISP 350 Database Programming...................................................... 3
CISP 356 Relational Database Design & Information Retrieval ... 3
Programming Cluster:
A minimum of four (4) units from the following:........................... 4
CISP 360 Introduction to Structured Programming (4)
CISP 400 Object Oriented Programming with C++ (4)
CISP 370 Beginning Visual BASIC (4)
CISP 300 Algorithm Design/Problem Solving (3)
CISP 499 Experimental Offering in CISP (0.5 - 4)
Web Cluster:
A minimum of four (4) units from the following:........................... 4
CISC 305 Introduction to the Internet (1)
CISC 306 Introduction to Web Page Creation (1)
CISW 300 Web Publishing (3)
CISW 400 Client-side Web Scripting (4)
CISW 410 Middleware Web Scripting (4)
CISW 420 Server-side Web Scripting (4)
CISW 499 Experimental Offering in CISW (0.5 - 4)
TOTAL UNITS REQUIRED........................................................................ 16

CERTIFICATE OF PROFICIENCY
Computer Information Science - Software Development Using Visual BASIC.NET
CODE #1544

Visual BASIC.NET combines Windows, web programming, and database connectivity within a single object-oriented programming language. Our certificate teaches a student to create custom Windows applications that can execute on a single local computer, a single web server, or a combination of a local computer and servers. These applications may use ADO.NET, ASP .NET, and Windows security technologies.

REQUIRED PROGRAM............................................................................ Units
CISP 370 Beginning Visual BASIC......................................................... 4
CISP 371 Intermediate Visual BASIC................................................... 4
A minimum of nine (9) units from the following:.............................. 9
CISA 320 Introduction to Database Management (1)
CISP 300 Algorithm Design/Problem Solving (3)
CISP 350 Database Programming (SQL Server or Oracle) (3)
CISW 400 Client-side Web Scripting (4)
CISW 410 Middleware Web Scripting (4)
CISW 440 XML: Intro to Extensible Markup Language (2)
TOTAL UNITS REQUIRED........................................................................ 17

CERTIFICATE OF PROFICIENCY
Computer Information Science - Software Development with JAVA
CODE #1556

This certification will enhance students’ proficiency in the fundamentals of the JAVA programming language using the JAVA 2 Platform, Standard Edition (J2SE technology). After this certification, the students should be able to take Sun’s certification exam to become a SUN CERTIFIED PROGRAMMER FOR THE JAVA 2 PLATFORM, and will have a better marketability.

REQUIRED PROGRAM............................................................................ Units
CISP 401 Object Oriented Programming with JAVA............................ 4
CISP 402 JAVA - Data Handling......................................................... 4
CISP 403 JAVA - Smart Device Applications .................................. 4
CISP 404 JAVA - Enterprise Applications ......................................... 4
TOTAL UNITS REQUIRED....................................................................... 16

CERTIFICATE OF PROFICIENCY
Computer Information Science - Web Publishing
CODE #1494

This certificate is designed to give students the benefits of hands-on training in Web Page Design and Publication, Internet usage, and proficiency with web-related media applications.

REQUIRED PROGRAMS........................................................................... Units
BUS 100 English for the Professional .............................................. 3
CISC 308 Exploring Computer Environments and the Internet... 1
or CISC 323 Linux Operating System
CISW 350 Imaging for the Web........................................................... 1
CISW 300 Web Publishing................................................................. 3
Design Elective:
A minimum of 3 units from the following:.................................... 3
ARTNM 302 Digital Basics for Art New Media (1.5)
or ART 301 Digital Drawing and Composition (3)
PHOTO 400 Digital Imaging (3)
ARTNM 324 Digital Design (3)
A minimum of 4 units from the following:................................... 4
CISC 306 Introduction to Web Page Creation (1)
CISW 321 Web Site Development using Dreamweaver (3)
CISW 310 Advanced Web Publishing (4)
CISA 340 Presentation Graphics (2)
CISA 330 Desktop Publishing (2)
CISW 400 Client-side Web Scripting (4)
CISW 410 Middleware Web Scripting (4)
CISW 355 Web Imaging Projects (2)
CISW 304 Cascading Style Sheets (2)
CISW 326 Intermediate Web Site Development using Dreamweaver (3)
TOTAL UNITS REQUIRED...................................................................... 15

1 Select either Windows or Unix Operating System

Suggested Electives:
CISC 310; ART 450
CERTIFICATE OF PROFICIENCY
Computer Information Science -
Linux Systems Administrator
CODE # 1607

This certificate provides an introductory certification for students who are interested in Linux. This certificate allows the Linux Professional the opportunity of honing their skills on basic Linux competencies encountered with a home or small business network. Students will start by understanding the basics surrounding a successful installation and configuration of a Linux server. Further courses will provide in-depth knowledge of command-line as well as other tools needed for successful daily system administration. Finally, the needed skill-sets to provide security for a Linux-based computer in a networked environment will be emphasized. This certificate will prepare students for the SAIR Level One Certified Linux Administrator certificate.

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 323</td>
<td>Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISC 324</td>
<td>Intermediate Linux Operating System</td>
<td>1</td>
</tr>
<tr>
<td>CISC 356</td>
<td>Introduction to Local Area Networks</td>
<td>1.5</td>
</tr>
<tr>
<td>SAIR Linux Curriculum: Linux Installation and Configuration:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CISN 300</td>
<td>Network Systems Administration (Linux)</td>
<td>3</td>
</tr>
<tr>
<td>SAIR Linux Curriculum: Linux System Configuration:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CISN 302</td>
<td>Intermediate Network Systems Administration (Linux)</td>
<td>3</td>
</tr>
<tr>
<td>SAIR Linux Curriculum: Linux Networking (Linux+):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CISN 303</td>
<td>Network Administration - Linux Server</td>
<td>3</td>
</tr>
<tr>
<td>SAIR Linux Curriculum: Linux Security, Privacy and Ethics:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CISS 342</td>
<td>Implementing Linux Operating System Security</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED ............................................................. 15.5

Guidelines to Students: SAIR candidates on the Level One Certified Linux Administrator track are required to satisfy four certification exams. Take these courses for these Level One Certified Linux Administrator skill sets:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISP 300</td>
<td>Linux Installation and Configuration</td>
</tr>
<tr>
<td>CISP 302</td>
<td>Linux System Administration</td>
</tr>
<tr>
<td>CISP 303</td>
<td>Linux Networking</td>
</tr>
<tr>
<td>CISS 342</td>
<td>Linux Security, Privacy and Ethics</td>
</tr>
</tbody>
</table>

CERTIFICATE OF PROFICIENCY
Management Information Systems -
Application Specialist
CODE #1076

This certificate is designed for students who need to know how to perform computer-related data entry in a particular application area. Students who want to continue their education by pursuing another Business Technology, Computer Information Science or Management Information Systems certificate may do so without repeating any courses completed for this certificate.

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSTEC 101</td>
<td>Computer Keyboarding: 10-Key</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 110</td>
<td>Business Procedures for Professional Success</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 302</td>
<td>Computer-Keyboarding</td>
<td>2</td>
</tr>
<tr>
<td>BUSTEC 303</td>
<td>Computer-Keyboard Formatting</td>
<td>2</td>
</tr>
<tr>
<td>CISC 302</td>
<td>Computer Familiarization</td>
<td>2</td>
</tr>
<tr>
<td>or CISC 308</td>
<td>Exploring Computer Environments &amp; the Internet</td>
<td>1</td>
</tr>
<tr>
<td>or CISC 310</td>
<td>Introduction to Computer Information Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Application Emphasis:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing (2) and</td>
<td>1</td>
</tr>
<tr>
<td>or CISA 306</td>
<td>Intermediate Word Processing (2)</td>
<td>2</td>
</tr>
<tr>
<td>or CISA 315</td>
<td>Introduction to Electronic Spreadsheets (2)</td>
<td>2</td>
</tr>
<tr>
<td>or CISA 316</td>
<td>Intermediate Electronic Spreadsheets (2)</td>
<td>2</td>
</tr>
<tr>
<td>or CISA 320</td>
<td>Introduction to Database Management (1)</td>
<td>3</td>
</tr>
<tr>
<td>or CISA 321</td>
<td>Intermediate Database Management (1)</td>
<td>3</td>
</tr>
<tr>
<td>or CISA 330</td>
<td>Desktop Publishing (2)</td>
<td>2-4</td>
</tr>
<tr>
<td>or CISA 331</td>
<td>Intermediate Desktop Publishing (2)</td>
<td>2</td>
</tr>
<tr>
<td>or CISA 340</td>
<td>Presentation Graphics (2)</td>
<td>2-4</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED ........................................................... 11-15
CISC 295
Independent Studies in Computer Information Science - Core 1-3 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

CISC 299
Experimental Offering in Computer Information Science - Core .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

CISC 302
Computer Familiarization 2 Units
Same As: JOUR 330
Prerequisite: None
Advisory: BUSTEC 302
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 36 hours LEC
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, database software, email and the Internet will be emphasized. Students will be reading and interpreting written and oral instructions of a technical nature. This course is the same as JOUR 330, and only one may be taken for credit. See Cross-Listed Courses in the catalog.

CISC 305
Introduction to the Internet 1 Unit
Prerequisite: None
Advisory: CISC 302 or 310
Course Transferable to CSU
Hours: 18 hours LEC
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).

CISC 306
Introduction to Web Page Creation 1 Unit
Prerequisite: CISC 305 with a grade of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC
The student will be able to produce a Web page, including design, layout, construction, and presentation. HTML will be used to format a Web page.

CISC 308
Exploring Computer Environments and the Internet 1 Unit
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC
The course acquaints the student with the fundamentals of microcomputer hardware, software and computer networking, focusing on widely used hardware and operating systems, Intel-based PCs and the Windows operating system. The fundamentals of the Internet and Internet tools are introduced, as well as effective electronic communication.

CISC 310
Introduction to Computer Information Science 3 Units
Prerequisite: None
Advisory: BUSTEC 302
General Education: AA/AS Area III(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course examines information systems and their role in business, including database management systems, networking, e-commerce, ethics and security, and system infrastructure. Student will apply these concepts and related methods through hands-on projects to develop computer-based solutions to business problems. (C-ID ITIS 120)

CISC 320
Operating Systems 1 Unit
Prerequisite: None
Advisory: CISC 302 or 310
Course Transferable to CSU
Hours: 18 hours LEC
This course introduces the student to the concepts of an operating system (for example, Windows, AS 400, or UNIX).

CISC 321
Intermediate Operating Systems 1 Unit
Prerequisite: CISC 320 with a grade of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC
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.

CISC 322
Advanced Operating Systems 1 Unit
Prerequisite: CISC 321 with a grade of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC
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.

CISC 323
Linux Operating System 1 Unit
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC
This course introduces the Linux operating system for desktop computers. Concepts include kernels, file structures, Daemons, shells, GUIs, procedures for installing software, creation of user accounts, shell commands, scripts, and file security.
CISC 324
Intermediate Linux Operating System 1 Unit
Prerequisite: CISC 323 with a grade of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC
This course covers the Linux operating system for desktop computers. It covers advanced shell scripting, C Shell, K Shell, and BASH. Other topics covered in this course include decision-making logic, looping, and nesting. Consult the class schedule for specific operating system offered.

CISC 355
Introduction to Data Communications 1.5 Units
Prerequisite: None
Course Transferable to CSU
Hours: 27 hours LEC
Students will learn to select and install a peer-to-peer network to meet their specific home network needs. Other topics this course will cover include how to administer and troubleshoot a home network; how to protect your network from viruses and worms; broadband versus DSL connections; wired versus wireless networks; how to connect computers for multiplayer gaming; sharing hardware and software; and how to increase productivity in a small office. This course will teach students the skills necessary to turn a multi-computer home into a fully connected network.

CISC 356
Introduction to Local Area Networks 1.5 Units
Prerequisite: None
Course Transferable to CSU
Hours: 27 hours LEC
From hubs to servers this course will introduce students to the exciting field of computer networking. Beginners will become comfortable with the concepts and vocabulary of computer networking and will gain hands-on experience in basic networking technology. Some topics include the Internet and its tools; the diversity of Network Operating Systems one can use in a Local Area Network; how to configure communication protocols, such as TCP/IP; the distinction between a Local Area Network and a Wide Area Network; and the fundamentals of network architecture and design.

CISC 360
Microcomputer Support and Maintenance 4 Units
Prerequisite: CISC 323 and 356 with grades of “C” or better
Advisory: CISC 310
Course Transferable to CSU
Hours: 36 hours LEC; 108 hours LAB
Throughout this course you will learn all of the technical skills necessary to become an A+ certified technician. These skills will be taught through a series of hands-on lab exercises and review questions designed to teach and improve your PC configuration and troubleshooting skills, which are necessary to function as a PC support person or help-desk technician.

CISC 495
Independent Studies in Computer Information Science - Core 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

CISC 498
Work Experience in Computer Information Science - Core 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Computer Information Science.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

CISC 499
Experimental Offering in Computer Information Science - Core .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB

COMPANY INFO SCIENCE - APPS (CISA)

CISA 299
Experimental Offering in Computer Information Science - Applications .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

CISA 305
Beginning Word Processing 2 Units
Prerequisite: BUSTEC 302 with a grade of “C” or better; or keyboarding speed verification at 25 wpm or better.
Advisory: CISC 302 or 310
Course Transferable to CSU
Hours: 36 hours LEC
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, printing text and creating and editing simple tables. It also includes business document formatting. Students may receive two units credit for each topic offered. Consult the class schedule for specific topics.
CISA 306
Intermediate Word Processing 2 Units
Prerequisite: CISA 305 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC
This is a course designed to build upon previous training in the use of word processing. The course covers intermediate to advanced word processing features, such as styles, macros, outlines, document notations, forms, charts, and mail merge. Also covered are integrating word processing with other applications and creating documents for use on the Internet, i.e. web pages and e-mail attachments in word processing. Advanced business document formatting will also be included.

CISA 308
Exploring Word Processing & Presentation Software 1 Unit
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC
The course introduces the student to the most widely used word processing and presentation software, Microsoft Word and PowerPoint. The basic features and skills of creating, editing, formatting, inserting tables and graphics and enhancing Word documents and PowerPoint presentations are covered.

CISA 315
Introduction to Electronic Spreadsheets 2 Units
Prerequisite: None
Advisory: CISC 302 or 310
Course Transferable to CSU
Hours: 36 hours LEC
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, producing charts, performing spreadsheet data base functions, and producing reports. Students will be using mathematical concepts and skills.

CISA 316
Intermediate Electronic Spreadsheets 2 Units
Prerequisite: CISA 315 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC
This course introduces students to the intermediate features of spreadsheet programs. The course will cover macros, data tables and lookup functions, logical expressions as well as advanced file operations, functions, and convenience commands. Students will follow spreadsheet templates and design their own sheets.

CISA 318
Exploring Spreadsheet Software 1 Unit
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC
The course acquaints the student with widely used spreadsheet software. The basic features and skills of editing a workbook, using basic formulas and functions in a workbook, formatting a workbook, inserting and formatting charts and graphics in a workbook and analyzing and presenting a workbook are covered.

CISA 320
Introduction to Database Management 1 Unit
Prerequisite: None
Advisory: CISC 302 or 310
Course Transferable to CSU
Hours: 18 hours LEC
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.

CISA 321
Intermediate Database Management 1 Unit
Prerequisite: CISA 320 with a grade of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC
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.

CISA 330
Desktop Publishing 2 Units
Same As: JOUR 335
Prerequisite: None
Advisory: CISC 302 or 310; and CISA 305
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course provides an overview of desktop publishing (DTP) and a major desktop publishing application program. It includes page layout skills needed to produce newsletters, brochures, flyers, reports, and marketing material on the computer. Additionally it covers importing graphics and text, using palette menus, layers, master pages, and working with graphic and text frames. This course is the same as JOUR 335, and only one may be taken for credit.

CISA 331
Intermediate Desktop Publishing 2 Units
Same As: JOUR 336
Prerequisite: CISA 330 or JOUR 335 with a grade of “C” or better
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course builds upon previous desktop publishing software concepts and study. Topics include working with color, applying styles, importing and linking graphics, tabs and tables, and working with transparency effects. It also covers producing long documents and book features, output and exporting to PDF format, and creating interactive documents for online use. This course is the same as JOUR 336, and only one may be taken for credit.

CISA 340
Presentation Graphics 2 Units
Prerequisite: None
Advisory: CISC 302 or 310
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
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).
CISN 300
Network Systems Administration 3 Units
Prerequisite: None
Corequisite: CISC 323 and 356
Advisory: CISC 302, 308, or 310
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB

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. Consult the class schedule for specific operating system offered.

CISN 301
Network Client Systems Administration 3 Units
Prerequisite: None
Corequisite: CISC 323 and 356
Advisory: CISC 302, 308, or 310
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB

This course covers the administration of a client in a client/server network. Topics include designing a basic network, installing and configuring a client 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.

CISN 302
Intermediate Network Systems Administration 3 Units
Prerequisite: CISN 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB

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.

CISN 303
Network Administration - Linux Server 3 Units
Prerequisite: CISN 306 with grades of “C” or better
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB

This course provides introductory coverage of Linux Network Administration. The course maps to the CompTIA Linux+ certification exam, and to SA/IT/GNU’s Linux Networking course. Specific course topics include: introducing Linux; exploring the desktop; using the Shell; understanding users and file systems; understanding text processing; managing processes; using network clients; installing Linux; understanding system initialization; managing software packages and file systems; managing users; configuring networks; system and kernel management; writing Shell scripts; and advanced topics and troubleshooting. The course requires many hands-on projects, which allow students to practice what they learn.

CISN 306
Advanced Network Systems Administration 3 Units
Prerequisite: CISN 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB

Students will learn to install, configure, and administer Microsoft Windows Active Directory services. The course also focuses on implementing Group Policy and understanding the Group Policy tasks required to centrally manage users and computers. Students will use Group Policies to configure and manage the user desktop environment, to configure and manage software, and implement and manage security settings. Students will install and manage Windows Domains and Domain Controllers through Active Directory.

CISN 308
Internetworking with TCP/IP 3 Units
Prerequisite: CISN 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB

This course will enable students to install, configure, and manage and support a network infrastructure that uses the Microsoft Windows Server products. The course focuses heavily on TCP/IP and related services, including DHCP Server service, DNS Server service, WINS, network security protocols, Public Key Infrastructure (PKI), Internet Protocol Security (IPSec), remote access. The course also enables the student to configure Windows as a network router, configure Internet access for a network, configure a Web server, and manage a Windows deployment using Remote Installation Services (RIS). The student will also learn to enable network connectivity between NetWare, Macintosh, and UNIX networks.

CISN 320
Designing Windows Directory Services 3 Units
Prerequisite: CISN 306 with a grade of “C” or better
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB

This course provides students with the knowledge and skills necessary to design a Microsoft Windows directory services infrastructure in an enterprise network. At the end of the course, students will be able to describe guidelines for gathering business and administrative information from an organization, and explain how an architect uses that information to design an Active Directory structure for an enterprise; design an Active Directory naming strategy; develop a plan to secure and delegate administrative authority over Active Directory objects based on the administrative model of an organization; identify business needs and scenarios that may require modifications of the Active Directory schema, create an Active Directory design based on administrative Group Policy requirements defined by business needs; design a site topology for a multi-domain organization; and design an Active Directory replication plan based on the site topology design.
CISN 324
Designing Windows Networking Services  3 Units
Prerequisite: CISN 308 with a grade of “C” or better  
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB

This course provides students with the knowledge and skills necessary to create a networking services infrastructure design that supports the required network applications. Each module provides a solution based on the needs of the organization. The course includes designing and planning for Dynamic Host Configuration Protocol (DHCP), Domain Name Service (DNS) Internet Protocol (IP) address configuration, routing solutions using Open Shortest Path First (OSPF) and Internet Group Management Protocol (IGMP), Internet connectivity design using Network Address Translation, Internet connectivity using Microsoft Proxy Server 3.0, remote access connectivity; and a management strategy for networking services.

CISN 330
Data Communication & Networking Fundamentals  3 Units
Prerequisite: CISC 356 with a grade of “C” or better  
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB

This course is an introduction to data communication and networking fundamentals. It surveys data communication hardware and software components and basic networking concepts. Topics covered include data communication, the OSI Model, IP addressing, routing concepts, LAN media, and network management and analysis. This course helps prepare students for CompTIA’s Network+ certification exam.

CISN 374
Messaging Server Administration  3 Units
Prerequisite: CISN 302 with a grade of “C” or better  
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB

This course provides students with the knowledge and skills required to deploy and administer/support Microsoft Exchange Server. This course covers use of Exchange Server to create and manage recipient objects; maintain an existing Exchange Server organization, as well as design and implement a new organization; create and manage public folders; perform basic backup procedures; monitor server performance and configure link monitors between connected sites; and manage electronic forms in an organization. The student will also create and configure the various messaging connectors; configure directory and public folders replication; and configure Exchange Server for connectivity to the Internet. The course also examines how Exchange Server provides for connectivity to foreign messaging systems such as Lotus cc:Mail, Lotus Notes, and Microsoft Mail and Schedule+.

CISN 378
Database Administration for Microsoft SQL Server  3 Units
Prerequisite: CISN 302 with a grade of “C” or better  
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB

This course provides students with the knowledge and technical skills required to install, configure, administer, and troubleshoot the client/server database management system of Microsoft SQL Server. The student will also learn to manage files and databases; choose and configure a login security method; plan and implement database permissions; secure SQL Server in an enterprise network; perform and automate administrative tasks; create custom administrative tools; monitor and optimize SQL Server performance; and replicate data from one SQL Server to another.

CISN 490
Networking Helpdesk Practicum  2 Units
Prerequisite: CISC 308 and 356 with grades of “C” or better  
Course Transferable to CSU
Hours: 24 hours LEC; 36 hours LAB

This course is an introduction to computer and networking support for a Local Area Network. It includes lecture and hands-on application of helpdesk concepts and responsibilities, hardware and software troubleshooting in a networked environment, system documentation, and technical communication skills.

CISN 499
Experimental Offering in Computer Information Science - Networking .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB

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**COMPUTER INFO SCIENCE - PROGRAM (CISP)**

CISP 300
Algorithm Design/Problem Solving  3 Units
Prerequisite: None  
Advisory: CISC 310
Course Transferable to UC/CSU
Hours: 54 hours LEC

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. Additional topics covered include structured design, control structures, arrays, introductory objects and events, and file processing. Students will create programming plans and detailed design documents from which source code versions of programs can be created.

CISP 310
Assembly Language Programming for Microcomputers  4 Units
Prerequisite: CISP 360 with a grade of “C” or better  
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB

This course is an introduction to computer architecture using assembly language programs. Topics include: binary representation of data and instructions, memory addressing modes, subroutines and macros, operating system interrupts, processor architecture, and interfacing with high level languages. (C-ID COMP 142)

CISP 350
Database Programming  3 Units
Prerequisite: CISA 320 with a grade of “C” or better; and three units in any programming language.  
General Education: AA/AS Area III(b)  
Course Transferable to UC/CSU
Hours: 54 hours LEC

This is an introductory course in programming database. The topics include analysis and design, modular programming, screen displays and menus, and multiple databases.
This course is designed to introduce relational database technology, normalization, entity relationships, logical model design, and ISO-ANSI standard Structured Query Language (SQL). Topics covered include: database design, basic properties of a relational database such as relations, tables, primary keys, foreign keys and principles of normalization, simple SQL select statements, sorting and grouping data, joining tables, subqueries and views. The database design section focuses on logical model design and entity relationship (ER) modeling. Students will leave the course with a good working knowledge of database technology.

This course builds upon the Introduction to Relational Databases and SQL course with more in-depth SQL constructs common to most commercial database products and extensions to the SQL language. Topics include: complex joins including inner and outer joins, correlated subqueries, complex table definition, table and column constraints, Union, Intersection, Minus, triggers, procedures and packages.

This course is designed for the intermediate level SQL programmer to design, create and deploy GUI applications that access relational database management systems. Topics include: GUI design fundamentals, data control and access methods (remote and local), creating datasets, implementing joins, transaction processing, multi-user data access, record locking, and deploying and installing applications on client workstations.

This course is designed to introduce students to administering a relational database management system. Topics include: managing users, privileges, resources, and tablespaces; creating an operational database, managing database files; how to start up and shut down an instance or database, the data dictionary, transaction processing, and backup and recovery issues. Completion will provide students with sufficient knowledge for an entry level Database Administration position in industry.

This course is designed to serve as an advanced-level course within the Database Design certificate. The course covers advanced database concepts. Topics include: data analysis, principle data models with emphasis on the relational model, entity-relationship diagrams, logical design, data administration and normalization.

This course is an introduction to structured programming. Sample topics include typed variables and constants, operators, control structures, standard libraries, arrays, pointers, I/O with keyboard/monitor and files, and an introduction to objects.

This course covers development of Windows-based desktop applications using VB.NET. Topics include best practices for GUI design, use of the Visual Studio .NET development software, organizing code into procedures and modules, calculation techniques, input data validation, file I/O, variable scope, arrays, multiple-window applications, and class development. This course is designed for students who want a strong foundation in building GUI applications and transfer MIS majors.

This course covers the .NET Framework classes including the ADO.NET and ASP.NET libraries. Topics include data files, programming with advanced controls, extending the .NET Framework classes using inheritance, collection-type classes, manipulation of database files with ADO.NET, and development of ASP.NET web applications and web services.
CISP 400
Object Oriented Programming with C++ 4 Units
Prerequisite: CISP 360 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course is an intermediate C++ course designed to further enhance the abilities of students to design and develop object-oriented programs. Included is an emphasis in higher level programming skills' development. Detailed information into class design and implementation, function templates, dynamic data allocation, pointers, strings, arrays, control structures, operator overloading, inheritance, virtual functions, polymorphism, data stream input and output, exception handling and file processing. (C-ID COMP 122)

CISP 401
Object Oriented Programming with Java 4 Units
Prerequisite: CISP 360 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course is an introduction to object oriented programming using the Java language. The student will learn the Java programming language as well as the Java compiler. Topics will include: creating Java applications, writing Java applet, using the control statements, creating Java methods, declaring Java arrays, object-based programming, object-oriented programming: inheritance and polymorphism, handling strings and characters, controlling graphics by using graphics and Java 2D, generating graphics by using graphical user interface components, exception handling, multithreading, and managing files and streams handling.

CISP 402
Java - Data Handling 4 Units
Prerequisite: CISP 401 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course is an intermediate JAVA class. The student will enhance their knowledge in Java Application Program Interface (API) and programming skills. Topics will include Files and Streams, Networking, Multimedia (Images, Animation and Audio), Data Structures, Java Utilities Package and Bit Manipulation, Collections, Java Database Connectivity with JDBC™, Servlets and JavaServer Pages (JSP).

CISP 403
Java - Smart Device Applications 4 Units
Prerequisite: CISP 402 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course covers Java Beans, J2ME, Security, and Advanced GUI and Web Services Topics. The student will learn Advanced Swing Graphical User Interface Components, Model-View-Controller, Graphics Programming with Java 2D and Java 3D, Java Beans Component Model, Security, advanced features of Java Databae Connectivity (JDBC), Servlets, and JavaServer Pages(JSP), Java-Based Wireless Applications Development and J2ME, and Remote Method Invocation.

CISP 404
Java - Enterprise Applications 4 Units
Prerequisite: CISP 403 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course explores features of Enterprise JavaBeans(EJB) and Java 2 Platform, Enterprise Edition(J2EE). Students will gain knowledge of Session EJBs, Distributed Transactions, Entity EJBs, Messaging with JMS, Application Servers, Jini, JavaSpaces, JMX, Jiro, CORBA, Peer-to-Peer Applications, JXTA, Web Services, and SOAP, and apply these knowledge at an enterprise environment.

CISP 405
Object Oriented Programming using C# on Visual Studio .NET 4 Units
Prerequisite: CISP 400 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course is an introduction to C# object oriented programming language on Visual Studio environment. Topics will include Visual Studio IDE, Constructors, Methods, Arrays, Inheritance, Polymorphism, Exception Handling, GUI, and Multithreading. This course is designed for students to understand the web base as well as system development capabilities of C#.

CISP 430
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: CISP 400 or CISP 401 with a grade of "C" or better.
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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 programming methodology are covered. Data structures include stacks, queues, trees, lists, etc. Searching and sorting techniques are discussed. Consult the class schedule for specific topics. (C-ID COMP 132)

CISP 440
Discrete Structures for Computer Science 3 Units
Prerequisite: MATH 370 with a grade of "C" or better
Corequisite: CISP 430
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to the discrete structures used in Computer Science with an emphasis on their applications. Topics covered include: counting methods, elementary formal logic and set theory, recursive programming and algorithm analysis, digital logic and combinational circuits, regular expressions, and finite state automatata. (C-ID COMP 152)

CISP 449
Experimental Offering in Computer Information Science - Programming .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
CISS 300
Introduction to Information Systems Security  1 Unit
Prerequisite: None
Advisory: Some experience and/or coursework in networking.
Course Transferable to CSU
Hours: 18 hours LEC

This course provides an introduction to network-based and Internetbased security applications and standards. Topics include cryptography, security protocols, network security applications, encryption, hash functions, digital signatures, viruses and key exchange.

CISS 301
Ethical Hacking  2 Units
Prerequisite: None
Advisory: CISC 323, 356; and CISS 300
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB

With the threats of cyber-terrorism and corporate espionage increasing, the need for trained network security professionals continues to grow. This course covers penetration-testing tools and techniques that White Hat Hackers and security testers used to protect computer networks. This course provides a structured knowledge base for preparing security professionals to discover vulnerabilities and recommend solutions for tightening network security and protecting data from potential attackers. The issue of ethics is also discussed.

CISS 310
Network Security Fundamentals  3 Units
Prerequisite: CISP 330 with a grade of “C” or better
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB

Organizations today are linking their information systems across enterprise-wide networks and Virtual Private Networks, as well as increasing their exposure to the Internet. Each connection magnifies the vulnerability to unauthorized access. This course provides the fundamental knowledge needed to analyze risks to the system and implement a workable security policy that protects information assets from potential intrusion, damage or theft. Students will learn which countermeasures to deploy to thwart potential attacks. This course also prepares students for CompTIA’s Security+ certification exam.

CISS 320
Implementing Network Security and Counter Measures  3 Units
Prerequisite: CISS 310 with a grade of “C” or better
Course Transferable to CSU
Hours: 48 hours LEC; 18 hours LAB

Virtual Private Networks (VPN) provide a significant cost savings by allowing remote users and multiple sites to securely communicate across a public network. A thorough understanding of the many standards and technologies available is essential for a successful VPN implementation. In this course, students will gain the knowledge required to evaluate, implement and manage secure remote-access technologies. In addition, with the growing reliance on e-commerce, network-based services and the Internet, organizations are faced with an ever-increasing responsibility to protect their systems from attack. Internet Detection Systems (IDS) are the latest and most powerful tools for identifying and responding to network- and host-based intrusions.

CISS 330
Implementing Internet Security and Firewalls  3 Units
Prerequisite: CISS 310 with a grade of “C” or better
Course Transferable to CSU
Hours: 48 hours LEC; 18 hours LAB

With the increased connectivity to the Internet and the wide availability of automated cracking tools, organizations can no longer simply rely on operating system security to protect their valuable corporate data. The firewall has emerged as a primary tool used to prevent unauthorized access. Students will learn how to allow access to key services while maintaining your organization’s security, as well as how to implement firewall-to-firewall Virtual Private Networks (VPNs).

CISS 341
Implementing Windows Operating System Security  3 Units
Prerequisite: CISS 310 with a grade of “C” or better
Advisory: CISC 308
Course Transferable to CSU
Hours: 48 hours LEC; 18 hours LAB

As organizations increasingly come to rely on Windows-based networks, it is essential that system administrators have a complete understanding of the security models integral to Windows Server and Workstation. This course will provide in depth explanations of operating system security features as well as step-by-step configuration guides for proper operating system configuration. It also provides the knowledge and skills students will need to know in order to maintain the integrity, authenticity, availability, and privacy of data.

CISS 342
Implementing Linux Operating System Security  3 Units
Prerequisite: CISC 323 with a grade of “C” or better
Advisory: CISS 310
Course Transferable to CSU
Hours: 48 hours LEC; 18 hours LAB

The UNIX family of operating systems is prized by developers and other IT professionals for their flexibility and openness. Vulnerabilities in standard configurations, however, can make UNIX systems susceptible to security threats. For the many organizations that depend upon UNIX systems, protection against intrusion is an absolute requirement. This course provides the knowledge and skills you need to establish security for the Linux platform. It will present in depth explanations of operating system security features as well as step-by-step configuration guides for proper operating system configuration. This course will also cover the knowledge and skills needed to maintain the integrity, authenticity, availability, and privacy of data.

CISS 350
Disaster Recovery  3 Units
Prerequisite: CISS 310 with a grade of “C” or better
Course Transferable to CSU
Hours: 48 hours LEC; 18 hours LAB

This course teaches students how to identify network vulnerabilities and how to take the appropriate countermeasures to prevent and mitigate failure risks for an organization. Students will gain an understanding of the steps needed for good disaster recovery including, how to prepare a disaster recovery plan, the various risks associated with an enterprise network, the diverse job functions of employees in a Disaster Recovery Plan, and the methods needed to implement a plan once it is complete. In addition, each student will develop a Disaster Recovery Plan with a group for a real or fictitious organization.
CISW 360
Computer Forensics and Investigation  3 Units
Prerequisite: CISW 310 with a grade of “C” or better
Advisory: CISC 308
Course Transferable to CSU
Hours: 48 hours LEC; 18 hours LAB
This course is an introduction to the methods used to properly conduct a computer forensics investigation beginning with a discussion of ethics, while mapping to the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. Topics covered include an overview of computer forensics as a profession; the computer investigation process; understanding operating systems boot processes and disk structures; data acquisition and analysis; technical writing; and a review of familiar computer forensics tools.

CISW 310
Advanced Web Publishing  4 Units
Prerequisite: CISW 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 72 hours LEC
This course builds upon previous web publishing concepts and study. The primary focus of this course is the systematic development of interactive web sites. Topics include cascading style sheets, dynamic HTML, forms, client-side programming with JavaScript, CGI scripting with Perl, and web-database interactivity.

CISW 321
Web Site Development using Dreamweaver  3 Units
Prerequisite: None
Advisory: CISC 305
Course Transferable to CSU
Hours: 54 hours LEC
This course covers the use of Dreamweaver, a visual Web-authoring tool, to develop and implement Web sites. The topics covered include creating Web pages that contain text, images, links, tables, frames, forms, Cascading Style Sheets and image maps, as well as enhancing Web pages Flash elements and built-in scripting. Additional topics include developing effective Web site structures, using Web site management tools, Web site documentation, making global updates to a Web site, extending Dreamweaver. Students will work individually and as a member of a team to plan, implement, test, and evaluate Web sites.

CISW 326
Intermediate Web Site Development using Dreamweaver  3 Units
Prerequisite: CISW 321 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course will reinforce and deepen many Dreamweaver topics covered in the beginning course CISW 321 by providing a more in-depth approach. In addition the course will introduce the other Adobe components such as Flash, Flash Script, and content management using Contribute software. Other topics covered include the following: advanced page formatting using style sheets, web site behaviors, work flow enhancement, templates, libraries, dynamic data, search functions, shopping cart functions, site security, user authentication, and other web services.

CISW 350
Imaging for the Web  1 Unit
Prerequisite: None
Advisory: CISC 306 and CISW 300
Course Transferable to CSU
Hours: 18 hours LEC
This course takes a look at designing graphics for the web. Using industry standard graphic software, students will create original graphics as well as manipulate found imagery. Through lecture, demonstration and hands-on methods as well as class/instructor critiques, students will understand the process for designing graphics for use on the World Wide Web. Topics include developing graphic elements for a web site using a visual theme, creating buttons and intuitive navigational elements, making background textures and images, understanding web file formats, scanning, and simple animations that enhance a web site.

CISW 355
Web Imaging Projects  2 Units
Prerequisite: CISW 350 with a grade of “C” or better
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course is a continuation of CISW 350. Projects and simulations developing graphics for the web are created for the purpose of marketing and advertising on the Web. The steps, procedures, and common problems encountered when producing quality graphics for professional Web sites are discussed and practiced. Real and simulated projects will include the following: compressing and uploading times, cropping and resizing, digital camera imaging, retouching and fixing photographs, photographic special effects and filters, rasterizing text, implementing backgrounds, buttons, themes, image maps, slicing, and simple animations.
CISW 400
Client-side Web Scripting  4 Units
Prerequisite: CISW 300 with a grade of “C” or better
Advisory: CISP 300 or CISW 310
Course Transferable to CSU
Hours: 72 hours LEC
This course emphasizes the creation of dynamic and interactive web sites using a client-side scripting language such as JavaScript. Topics include the Document Object Model of web pages, core features of the client-side scripting language, event handling, control of windows and frames, functions, and form validation.

CISW 410
Middleware Web Scripting  4 Units
Prerequisite: CISW 300 with a grade of “C” or better
Advisory: CISP 300 and CISW 310
Course Transferable to CSU
Hours: 72 hours LEC
This course emphasizes the creation of dynamic and interactive web sites using a middleware scripting language such as PHP or ASP. Topics include core features of the middleware scripting language, embedding server commands in HTML pages, control structures, functions, arrays, form validations, cookies, environmental variables, email applications, and database-driven web applications.

CISW 420
Server-side Web Scripting  4 Units
Prerequisite: CISW 300 with a grade of “C” or better
Advisory: CISP 300 or CISW 310
Course Transferable to CSU
Hours: 72 hours LEC
This course emphasizes the creation of interactive web sites using a server-side scripting language such as Perl. Topics include the core features of the server-side scripting language, event handling, control of windows and frames, functions, and form validation.

CISW 440
XML: Introduction to Extensible Markup Language  2 Units
Prerequisite: CISW 300 with a grade of “C” or better
Advisory: CISA 320 or CISP 350
Course Transferable to CSU
Hours: 36 hours LEC
XML is a universal method for representing information that is especially well suited for distribution over the Internet. This course will address the most fundamental XML questions - what XML is, why it is needed, and how it can be used. Students will learn the most current, practical XML technologies available at the present time.

CISW 499
Experimental Offering in
Computer Information Science - Web  .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
Construction
Careers & Technology

DEGREE
A.S. — Construction
A.S. — Construction, Building Performance and Energy Assessment

CERTIFICATE OF ACHIEVEMENT
Construction

CERTIFICATE OF PROFICIENCY
Construction Pre-Apprenticeship
Building Performance and Energy Assessment

See also:
Green Buildings: Environmental Design, Energy Management and Performance Based Construction (Listed under the Architecture Program)

Program Description
The Construction Technology programs at CRC are preparing students for work in new construction, remodel, and energy auditing industries. Course offerings include everything from entry level trades courses, all the way to national certification. Students will train at the college, and at real job sites. Traditional building practices are covered, but advanced framing techniques, energy efficiency, health and safety, and sustainability are emphasized.

The Construction Pre-Apprenticeship courses focus on new construction, carpentry, and other building trades. Students learn about the tools and techniques used to construct new homes, and gain skills in print reading and layout. They are also introduced to green building methods and materials. The Building Performance and Energy Assessment courses shift that focus to analyzing existing homes.

The Weatherization and Building Performance and Energy Assessment industries are helping families reduce their energy burden, while maintaining comfort and safety. Our students learn the national standard and protocols for energy auditing, combustion appliance safety, and energy modeling. Successful students are prepared to take the national certification exams for building analysts and energy auditors.

Course offerings are intended to promote career ladders for those just entering the industry, as well as industry professionals looking to stay current. There are multiple certificates and degree options and inter-related disciplines at the college, including Construction Management and Building Inspection Technology.

Career Opportunities
General Contractor
Construction Supervisors
Four-year Apprenticeship
Energy Auditor
Weatherization Technician
Certified Energy Plans Examiner
Building & Construction Tradesperson

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

Highlights
• Articulation agreements for transfer to specific four-year institutions
• Field trips to a variety of new and existing construction structures for study and appreciation
• Affiliation with Sacramento Habitat for Humanity

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.S.—Construction

CODE # 1110

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CMT 112</td>
<td>Construction Estimating</td>
<td>3</td>
</tr>
<tr>
<td>CMT 120</td>
<td>Legal Aspects of Construction</td>
<td>3</td>
</tr>
<tr>
<td>CONST 130</td>
<td>Construction Pre-Apprenticeship</td>
<td>6</td>
</tr>
<tr>
<td>CONST 131</td>
<td>Construction Pre-Apprenticeship II</td>
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<tr>
<td>CMT 136</td>
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<tr>
<td>CMT 300</td>
<td>Introduction to Construction Plans &amp; Specifications</td>
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<tr>
<td>BIT 102</td>
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<tr>
<td>CMT 310</td>
<td>Materials of Construction</td>
<td>3</td>
</tr>
<tr>
<td>CMT 313</td>
<td>Computer Estimating for Construction</td>
<td>3</td>
</tr>
<tr>
<td>BIT 100</td>
<td>Introduction to International Building Code</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED……………………………………… 34

Associate Degree
The Construction Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
DEGREE
A.S. – Construction, Building Performance and Energy Assessment
Code #1968

The Construction, Building Performance and Energy Assessment Degree is designed for the student who begins with limited experience in the construction industry, and prepares them in the necessary basic and applied technical skills to enter the construction or building performance industry. This Degree covers standard construction practices with an emphasis on green building topics throughout. After completion of coursework in construction practices, students will also be trained as industry professionals in the principles of building science, energy consumption in homes, and specific standards for efficiency, comfort, health and occupant safety. Through an industry recognized curriculum in building science, students will be introduced to two tracks, one geared for building trades and weatherization technicians, and the other focusing on energy auditing and third party verification jobs. Upon completion of the Degree, students will be prepared to certify building analysts with the nationally recognized Building Performance Institute. This Degree provides multiple career options in construction related industries.

Required Program ................................................. Units
CONST 130 Construction Pre-Apprenticeship I ............ 6
CONST 131 Construction Pre-Apprenticeship II .......... 7
CONST 103 OSHA 10 Hour Safety Training ................ 1
CONST 160 Introduction to Residential Building Performance ...... 6
CONST 161 Intermediate Residential Building Performance and Energy Auditing .................................... 4
CONST 162 Residential Energy Science and the Global Perspective ................. 3
CONST 163 Advanced Energy Auditing and Energy Modeling ........................................ 3
TOTAL UNITS REQUIRED ........................................ 30

Associate in Science Degree
The Construction, Building Performance and Energy Assessment Associate in Science (A.S.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF PROFICIENCY
Building Performance and Energy Assessment
Code #1968

The Building Performance and Energy Assessment program trains industry professionals in the principles of building science, energy consumption in homes, and focuses on specific standards for efficiency, comfort, health and occupant safety. The program also gives students a more global view of energy literacy. We offer two tracks, one geared more for weatherization and trade technicians, and the other for energy auditing and third party verification jobs. Both tracks utilize recognized industry curriculum in building science, and prepare students to certify with the nationally recognized Building Performance Institute, as Certified Building Analysts.

REQUIRED PROGRAM ............................................. Units
CONST 160 Introduction to Residential Building Performance ...... 6
CONST 161 Intermediate Residential Building Performance and Energy Auditing .................................... 4
CONST 103 OSHA 10 Hour Safety Training ................ 1
TOTAL UNITS REQUIRED ........................................ 11

CERTIFICATE OF PROFICIENCY
Construction Pre-Apprenticeship
CODE #1546

This program prepares students for entry into an apprenticeship program in the building and construction industry.

REQUIRED PROGRAM ............................................. Units
CONST 130 Construction Pre-Apprenticeship I ............ 6
CONST 131 Construction Pre-Apprenticeship II .......... 7
TOTAL UNITS REQUIRED ........................................ 13

CONSTRUCTION (CONST)

CONST 102
Introduction to Construction Practices .......... 4 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB

This course provides students with in-depth analysis of the organization and structure of the construction industry and the many career choices the industry offers. Many of the construction trades are represented, with formal apprenticeship opportunities highlighted. The emerging “Green Building” jobs will be examined, as well as other topics in sustainability. Guest speakers and field trips provide the students a wide view of the expectations of entry-level work, wages, benefits, and work place culture. The curriculum also emphasizes job site safety, practical working knowledge of tool and equipment use, an introduction to blueprints, and an overview of industry math.
CONST 103
OSHA 10 Hour Safety Training 1 Unit
Prerequisite: None
Hours: 18 hours LEC
This OSHA Outreach Training Program is intended for training students and industry workers in basic safety and health hazard recognition and prevention. This course is taught by authorized industry outreach trainers, and successful students will receive the OSHA 10 Hour card. Topics include: Intro to OSHA, Fall Protection, Electrical, Ladders and Stairs, Scaffolds, PPE, Hand and Power Tools, Hazcom, Motor Vehicles, Confined Space Entry, Fire Protection, and Ergonomics.

CONST 130
Construction Pre-Apprenticeship I 6 Units
Prerequisite: None
Advisory: CONST 102
Hours: 54 hours LEC; 162 hours LAB
This course is designed to teach the skills required to be successful in the construction industry. This course covers an Introduction to the Industry, Building Materials, Hand and Power tools, Introduction to Plans and Building Codes, Site Layout and Foundations, Floor Framing, Wall Framing and Roof Framing. This is the second of three courses that make up the Construction Pre-Apprenticeship certificate.

CONST 131
Construction Pre-Apprenticeship II 7 Units
Prerequisite: CONST 130 with a grade of "C" or better
Hours: 54 hours LEC; 216 hours LAB
This course is the third of three courses that make up the Construction Pre-Apprenticeship program. This program prepares students for jobs in the construction trades. The course also prepares students for careers in the Building Performance and Energy Assessment certificate. This course is a continuation of the curriculum from CONST 130 and covers windows and doors, Insulation and Ventilation, Interior and Exterior finishes, Intro to Green Building, Energy Awareness, and Fundamentals in Mechanical, Electrical, and Plumbing. Construction projects may be located at both on and off campus sites.

CONST 140
Location, Site Sustainability, and Water Conservation 1.5 Units
Prerequisite: None
Hours: 27 hours LEC
This course is intended to be the first in the series of Green Building courses. Each course in the series focuses on specific pieces of the larger Green Building sector. This course covers the following topics: Review of general green building principles, location & linkages and fundamentals of green urban planning, and site stewardship. We will also discuss efficient landscaping and surface water management, current topics in outdoor and indoor water conservation, storm water and water pollution control, and water reuse systems. This course satisfies the elective units for the CRC Green Building Certificate.

CONST 141
Green Materials and Techniques for the Structural Frame and Building Envelope 1.5 Units
Prerequisite: None
Hours: 27 hours LEC
This course is intended to be the second in the series of Green Building courses, although the sequence is not mandatory. Each course in the series focuses on specific pieces of the larger Green Building sector. This course covers the following topics: Alternative building materials, Embodied energy and product life span information, topics in thermal and moisture barriers, air infiltration reduction, and insulation for the building envelope. Efficient framing, and waste reduction and diversion are also discussed. Course content is broken into two distinct categories: Foundations and structures, and mechanical and interior finishes. This course satisfies the elective units for the CRC Green Building Certificate.

CONST 142
Energy, Performance, and Indoor Air Quality 3 Units
Prerequisite: None
Hours: 54 hours LEC
This course is intended to be the third in the series of Green Building courses, although the sequence is not mandatory. Each course in the series focuses on specific pieces of the larger Green Building sector. This course covers the following topics: The science of energy and its sources, as well as the common alternative and renewable sources of energy that are being researched and developed. Green building guidelines and state energy efficiency standards for buildings and appliances will also be examined. The “Whole House approach” to Building Performance will be an undercurrent throughout the course. Indoor Air Quality, and other health topics will be introduced. This course satisfies the elective units for the CRC Green Building Certificate.

CONST 143
Photovoltaic Systems 3 Units
Prerequisite: None
Hours: 54 hours LEC
This course will cover general solar industry topics with an emphasis on photovoltaic principles and products. There will be a brief study of the political landscape in California in support of the California Solar Initiative, and market strategies and incentives will also be discussed. There will be some hands on projects to help students learn basic electrical theory and circuits, and an introduction to print reading. System Sizing and components will be covered as well. This class is part of the Green Buildings: Environmental Design, Energy Management and Performance Based Construction Certificate.

CONST 144
Case Studies in Current Sustainable Building Topics 1.5 Units
Prerequisite: None
Hours: 9 hours LEC; 54 hours LAB
This course is intended to give students the flexibility to propose their own Green Building topics of study to fulfill requirements for the CRC Green Building Certificate. Topics will be chosen by students. Case studies will entail establishing a criteria guided by the instructor to synthesize elements of the students interest, with a clear set of goals for the student to report on, and present to other students at the end of the class. Topics are open to any concepts where students can show adequate connection to the principles of green building and sustainability. The individual or team research will culminate in a written report for the instructor, and an oral presentation to the class. Possible topics could include, but are not limited to green landscape, green plumbing, mechanical or electrical, alternative energies, marketability of green businesses, or even a particular product or process.
CONST 160
Introduction to Residential Building Performance 6 Units
Prerequisite: None
Advisory: CONST 130 and 131; or equivalent skills demonstrated through the assessment process.
Hours: 81 hours LEC; 81 hours LAB
This class focuses on preparing students for jobs within the Residential Building Performance and Weatherization industries. This class will train students in residential building science, energy efficiency, and combustion appliance safety. Topics will include nationally recognized Building Performance Institute standards and California Weatherization Installation Standards, Duct and Shell Sealing Measures, and Combustion Appliance Zone testing. This is the first course in the Residential Building Performance and Energy Assessment certificate.

CONST 161
Intermediate Residential Building Performance and Energy Auditing 4 Units
Prerequisite: CONST 160 with a grade of "C" or better
Hours: 54 hours LEC; 54 hours LAB
This course focuses on preparing students for jobs in the Building Performance and Residential Energy Assessment industry. This class will train students about current auditing methods and standards including inspection, whole house performance diagnostics, building science, software applications for the energy professional, utility fee structure and bill disaggregation, and the industry's recognized rating systems. This course will also prepare the student for the Building Performance Institute "Building Analyst" exam.

CONST 162
Residential Energy Science and the Global Perspective 3 Units
Prerequisite: None
Hours: 54 hours LEC
This course is designed to improve “energy literacy” in students, and is a requirement in the Residential Building Performance and Energy Assessment degree and certificate. The course examines many of the careers in the new “Green Economy”, and then focuses on the science behind energy production, transmission, and consumption. Principles of energy are discussed, and the science of how energy is utilized in the built environment. Current topics in international energy policies will also be examined.

CONST 163
Advanced Energy Auditing and Energy Modeling 3 Units
Prerequisite: None
Advisory: CONST 161
Hours: 54 hours LEC
This course prepares students for jobs in the building performance and energy auditing industry. This class will train students in advanced energy auditing techniques using energy modeling software, and thermography. Students will be trained to use energy modeling software recognized by the California Energy Commission for both new and existing structures. Students will also be trained to use infrared imaging for accurate, non-invasive inspection of homes, assisting the auditor in locating thermal bridging in the building envelope. Topics in Multifamily and “Envelope Professional” certification will also be discussed.

CONST 294
Topics in Green Building Technology .5-4 Units
Prerequisite: None
Hours: 54 hours LEC; 108 hours LAB
This course covers special topics not included in current green building classes. Topics may be offered in workshops or seminar presentations on timely subjects or targeted for specific audiences.

CONST 298
Work Experience in Construction 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Construction.
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in associate degree level or certificate occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

CONST 299
Experimental Offering in Construction – Fine Wood Work .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.S. — Construction Management Technology

CERTIFICATE OF ACHIEVEMENT
Construction Management Technology

See also:
Green Buildings: Environmental Design, Energy Management and Performance Based Construction (Listed under the Architecture Program)

Program Description
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 Opportunities
Plan Checker Estimator
Superintendent Project Manager
Contractor Retail/Wholesale
Office Manager Developer
Foreman Laborer

Some Career Opportunities may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some Career Opportunities 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 four-year programs in Construction Technology

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate's degree in this major may be different from the requirements needed for the bachelor's degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.S.—Construction Management Technology
CODE #1080

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.

REQUIRED PROGRAM.................................................. Units
ACCT  101  Fundamentals of College Accounting (3) or
ACCT  301  Financial Accounting (4).............................. 3-4
ADT  310  Architectural Computer-Aided Drawing I.......... 3
CISC  302  Computer Familiarization............................ 2
CMT  300  Intro to Construction Plans and Specifications (3) or
BIT  102  Reading and Non-Structural Plan Review (3)........ 3
CMT  112  Construction Estimating............................... 3
CMT  120  Legal Aspects of Construction....................... 3
CMT  134  Construction Scheduling and Critical Path Method.. 3
CMT  136  Construction Safety................................... 3
CMT  310  Materials of Construction............................ 3
CMT  313  Computer Estimating for Construction............... 3
PHYS  310  Conceptual Physics.................................. 3
TOTAL UNITS REQUIRED ............................................. 32-33

Associate Degree
The Construction Management Technology Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Construction Management Technology
CODE #1080

This program prepares students for entry into the building and construction industry as a general tradesperson; and prepares students currently working within the industry for advancement.

REQUIRED PROGRAM.................................................. Units
ADT  310  Architectural Computer-Aided Drawing I......... 3
CISC  302 or JOUR 330  Computer Familiarization.......... 2
CMT  112  Construction Estimating............................ 3
CMT  120  Legal Aspects of Construction..................... 3
CMT  134  Construction Scheduling & Critical Path Method 3
CMT  300  Intro to Construction Plans & Specifications or
BIT  102  Reading And Non-Structural Plan Review.......... 3
CMT  310  Materials of Construction.......................... 3
CMT  313  Computer Estimating for Construction............. 3
TOTAL UNITS REQUIRED ............................................. 23
CONSTRUCTION MANAGEMENT TECHNOLOGY (CMT)

CMT 112
Construction Estimating 3 Units
Prerequisite: None
Advisory: CMT 310
Hours: 54 hours LEC
This course covers construction quantity survey and estimating practices for residential, light commercial and green building projects.

CMT 120
Legal Aspects of Construction 3 Units
Prerequisite: None
Hours: 54 hours LEC
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.

CMT 134
Construction Scheduling and Critical Path Method 3 Units
Prerequisite: None
Advisory: CMT 112
Hours: 36 hours LEC; 54 hours LAB
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.

CMT 136
Construction Safety 3 Units
Prerequisite: None
Advisory: CMT 300
Hours: 54 hours LEC
This course addresses the application of safety principles in construction with emphasis on the Occupation Safety and Health Act of 1970 and California OSHA.

CMT 295
Independent Studies in Construction Management Technology 1-3 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

CMT 299
Experimental Offering in Construction Management Technology .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

CMT 300
Introduction to Construction Plans and Specifications 3 Units
Prerequisite: None
Advisory: Concurrent enrollment in CMT 310
Course Transferable to CSU
Hours: 54 hours LEC
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.

CMT 310
Materials of Construction 3 Units
Prerequisite: None
Advisory: CMT 300.
Course Transferable to CSU
Hours: 54 hours LEC
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.

CMT 313
Computer Estimating for Construction 3 Units
Prerequisite: None
Advisory: CMT 112
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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.

CMT 495
Independent Studies in Construction Management Technology 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
CMT 498
Work Experience in Construction Management Technology 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Construction Management Technology.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

CMT 499
Experimental Offering in Construction Management Technology .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
Culinary Arts Management

Careers & Technology

DEGREE
A.A. — Culinary Arts Management

CERTIFICATES OF ACHIEVEMENT
Cooking and Supervision
School Foodservice Specialist

CERTIFICATES OF PROFICIENCY
Community Nutrition Specialist
Basic Culinary Services

Program Description
This 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 the 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 Opportunities
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

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.A. — Culinary Arts Management

CODE #1128

REQUIRED PROGRAM.................................................. Units
CAM 300  Introduction To Culinary Arts Management............ 2
CAM 306  Culinary Sanitation and Safety.......................... 2
CAM 301  Food Theory and Preparation............................. 4
CAM 310  Quantity Food Production................................. 3
CAM 316  Hors d’oeuvres & Canapes or CAM 312  Baking and Pastry............................................. 3
CAM 322  Culinary Customer Service................................. 2
CAM 320  Culinary Management...................................... 2
CAM 324  Culinary Supervision...................................... 2
CAM 326  Applied Culinary Purchasing............................. 2
CAM 340  Nutrition For Culinary Professionals................... 2
CAM 334  Culinary Marketing......................................... 2
CAM 330  Legal Aspects of Culinary Management............... 2
CAM 332  Culinary Financial Management......................... 2
CAM 302  Food and Culture in America............................ 3

TOTAL UNITS REQUIRED................................................. 33

Suggested Electives:
CAM 498  Work Experience in Culinary Arts Management

Associate Degree
The Culinary Arts Management Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF PROFICIENCY
Basic Culinary Services
CODE #1129
For people new to the field

REQUIRED PROGRAM ........................................ Units
CAM 300 Introduction To Culinary Arts Management ............ 2
CAM 306 Culinary Sanitation and Safety .......................... 2
CAM 301 Food Theory And Preparation ............................ 4
CAM 310* Quantity Food Production ............................... 3
CAM 322 Culinary Customer Service ............................... 2
TOTAL UNITS REQUIRED ........................................ 13

* 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 CAM 498: Work Experience with a grade of “C” or better.

CERTIFICATE OF PROFICIENCY
Community Nutrition Specialist
CODE #1275

REQUIRED PROGRAM ........................................ Units
NUTRI 300 Nutrition ....................................................... 3
CAM 306 Culinary Sanitation andSafety ........................... 2
CAM 301 Food Theory and Preparation ............................ 4
CAM 302 Food and Culture in America or
COMM 325 Intercultural Communication ........................ 3
CISC 302 or JOUR 330 Computer Familiarization .............. 2
CAM 340 Nutrition for Culinary Professionals.................. 2
TOTAL UNITS REQUIRED ........................................ 16

CERTIFICATE OF ACHIEVEMENT
Cooking and Supervision
CODE #1130

Designed to provide promotional skills

REQUIRED PROGRAM ........................................ Units
CAM 300 Introduction To Culinary Arts Management ............ 2
CAM 306 Culinary Sanitation and Safety .......................... 2
CAM 301 Food Theory and Preparation ............................ 4
CAM 310* Quantity Food Production ............................... 3
CAM 316 Hors d’oeuvres & Canapes or
CAM 312 Baking and Pastry .......................................... 3
CAM 322 Culinary Customer Service ............................... 2
CAM 320 Culinary Management ...................................... 2
CAM 324 Culinary Supervision ...................................... 2
CAM 326 Applied Culinary Purchasing ............................ 2
CAM 340 Nutrition For Culinary Professionals .................. 2
TOTAL UNITS REQUIRED ........................................ 24

* 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 CAM 498: Work Experience with a grade of “C” or better.

CERTIFICATE OF ACHIEVEMENT
School Foodservice Specialist
CODE #1276

REQUIRED PROGRAM ........................................ Units
NUTRI 300 Nutrition ....................................................... 3
CAM 306 Culinary Sanitation and Safety .......................... 2
CAM 301 Food Theory and Preparation ............................ 4
CAM 302 Food and Culture in America or
COMM 325 Intercultural Communication ........................ 3
CISC 302 or JOUR 330 Computer Familiarization .............. 2
CAM 340 Nutrition for Culinary Professionals .................. 2
CAM 310 Quantity Food Production ............................... 3
CAM 320 Culinary Management ...................................... 2
ECE 415 Children’s Nutrition, Health, and Safety .............. 3
CAM 498 Work Experience in CAM ............................... 1-4
TOTAL UNITS REQUIRED ........................................ 25-28

NATIONAL RESTAURANT ASSOCIATION
ManageFirst PROGRAM

Cosumnes River College now offers ManageFirst, 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.

Courses to complete the National Restaurant Association Management Development Diploma include:

Core Courses:
- CAM 306 Culinary Sanitation & Safety
- CAM 320 Culinary Management
- CAM 332 Culinary Financial Management
- CAM 324 Culinary Supervision

Select one of the following:
- CAM 326 Applied Culinary Purchasing
- CAM 340 Nutrition for Culinary Professionals
- CAM 310 Quantity Food Production
- CAM 322 Culinary Customer Service
- CAM 334 Culinary Marketing
### CULINARY ARTS MANAGEMENT (CAM)

**CAM 294**  
**Topics in Culinary Arts Management**  
.5-4 Units  
*Prerequisite: None*  
*Hours: 36 hours LEC; 108 hours LAB*  
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.

**CAM 300**  
**Introduction to Culinary Arts Management**  
2 Units  
*Prerequisite: None*  
*Course Transferable to CSU*  
*Hours: 36 hours LEC*  
This course profiles the hospitality industry and an introduction to the skills and attributes that predict success for professionals. Trends, ethics and issues facing the hospitality industry will be discussed. Entry skills to be taught include work simplification, time management, and computational skills.

**CAM 301**  
**Food Theory and Preparation**  
4 Units  
*Prerequisite: CAM 306 with a grade of “C” or better*  
*Course Transferable to CSU*  
*Hours: 36 hours LEC; 108 hours LAB*  
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.

**CAM 302**  
**Food and Culture in America**  
3 Units  
*Prerequisite: None*  
*General Education: AA/AS Area VI*  
*Course Transferable to CSU*  
*Hours: 54 hours LEC*  
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.

**CAM 306**  
**Culinary Sanitation & Safety**  
2 Units  
*Prerequisite: None*  
*Course Transferable to CSU*  
*Hours: 36 hours LEC*  
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 cafeterias. 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.

**CAM 310**  
**Quantity Food Production**  
3 Units  
*Prerequisite: CAM 306 with a grade of “C” or better*  
*Course Transferable to CSU*  
*Hours: 18 hours LEC; 108 hours LAB*  
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; and 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.

**CAM 312**  
**Baking and Pastry**  
3 Units  
*Prerequisite: CAM 306 with a grade of “C” or better*  
*Advisory: CAM 310*  
*Course Transferable to CSU*  
*Hours: 18 hours LEC; 108 hours LAB*  
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.

**CAM 314**  
**Fine Food to Go: Gourmet Cooking**  
3 Units  
*Prerequisite: None*  
*Course Transferable to CSU*  
*Hours: 36 hours LEC; 54 hours LAB*  
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.
CAM 316  
Hors D’oeuvres and Canapes  
3 Units  
Prerequisite: CAM 306 with a grade of “C” or better  
Advisory: CAM 310  
Course Transferable to CSU  
Hours: 18 hours LEC; 108 hours LAB  
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.

CAM 320  
Culinary Management  
2 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 36 hours LEC  
The course is designed to introduce students to the manager’s role in organizing, planning, and control of production for a culinary operation. Topics include menu planning and pricing, scheduling of staff and production, portion and temperature control, recipe standardization and scaling, and elements of culinary layout and design.

CAM 322  
Culinary Customer Service  
2 Units  
Prerequisite: None  
Advisory: CAM 306  
Course Transferable to CSU  
Hours: 18 hours LEC; 54 hours LAB  
Customer service is a skills development course to provide entry-level training in front of the house principles for quantity operations. The components of professional hospitality and meal service will serve as the foundations for this course. Students will participate in hands-on culinary customer service for the culinary programs catering events.

CAM 324  
Culinary Supervision  
2 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 36 hours LEC  
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.

CAM 326  
Applied Culinary Purchasing  
2 Units  
Prerequisite: None  
Advisory: CAM 300  
Course Transferable to CSU  
Hours: 36 hours LEC  
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.

CAM 330  
Legal Aspects of Culinary Management  
2 Units  
Prerequisite: None  
Advisory: CAM 300  
Course Transferable to CSU  
Hours: 36 hours LEC  
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.

CAM 332  
Culinary Financial Management  
2 Units  
Prerequisite: None  
Advisory: CAM 300 and 320  
Course Transferable to CSU  
Hours: 36 hours LEC  
This course focuses on culinary accounting and finance for culinary operations. The course includes the use of accounting techniques in such areas as analyzing business performance, budgeting, as well as cost and profit planning.

CAM 334  
Culinary Marketing  
2 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 36 hours LEC  
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.

CAM 340  
Nutrition for Culinary Professionals  
2 Units  
Prerequisite: None  
Advisory: CAM 300  
Course Transferable to CSU  
Hours: 36 hours LEC  
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.

CAM 495  
Independent Studies in Culinary Arts Management  
1-3 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54 hours LEC; 54 hours LAB  
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
CAM 498
Work Experience in Culinary Arts Management 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Culinary Arts Management.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

CAM 499
Experimental Offering in Culinary Arts Management .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
Diagnostic Medical Sonography
Careers & Technology

DEGREE
A.S. — Diagnostic Medical Sonography

CERTIFICATE OF ACHIEVEMENT
Diagnostic Medical Sonography

Program Description
The CRC Diagnostic Medical Sonography (DMS) Program includes didactic, laboratory, and practicum components that are structured to facilitate the achievement of educational and career goals. According to the American Registry for Diagnostic Medical Sonographers (ARDMS), sonographers are “highly-skilled professionals who use specialized equipment to create images of structures inside the human body that are used by physicians to make a medical diagnosis.” Sonographers have extensive, direct patient contact that may include performing some invasive procedures. They must be able to interact compassionately and effectively with people who range from healthy to critically ill.

Organizations such as the American Registry of Diagnostic Medical Sonographers (ARDMS) certify the competency of sonographers through registration.

Career Opportunities:
According to the ARDMS, Sonography is a dynamic profession that has grown significantly over the past 20 years. With rapidly developing new technologies and increased use of diagnostic ultrasound procedures, growth is projected to continue in the future with employment opportunities for qualified sonographers in both urban and rural areas nationwide.

Sonographers and vascular technologists can choose to work in clinics, hospitals, private-practice physician offices, public-health facilities, laboratories, and other medical settings performing examinations in their areas of specialization.

According to the Bureau of Labor Statistics’ Occupational Outlook Website, almost two-thirds of all sonographers are employed by hospitals. The rest work in physicians’ offices, medical and diagnostic laboratories/imaging centers and out-patient care centers.

Employment of diagnostic medical sonographers is expected to grow by 44 percent between 2010 and 2020, much faster than the average for all occupations (14%). As ultrasound technology evolves, it will become a more common method used to assist in diagnosing medical conditions, favored over more invasive procedures.

Enrollment Eligibility:
To be eligible for enrollment in the program, the student must meet the following criteria:

- Associate degree or higher from a U.S. accredited college AND a minimum of one year of paid patient care experience, which includes a minimum of 1,600 hours;
- Complete the application process for enrollment in the DMS program;
- Fulfill all requirements set forth by the CRC Allied Health Practicum Guidelines including but not limited to: background clearance, physical examination, CPR Certification, immunization clearance and drug screening;
- Successfully complete with a B or better all pre-requisite courses as outlined below:
  - College-level Intermediate Algebra (or higher math course)
  - Interpersonal Communications (or equivalent communications/speech course)
  - Anatomy & Physiology (one year with lab)
  - Medical Language
  - Human Disease or Pathophysiology
  - Conceptual Physics

DEGREE:
A.S.—Diagnostic Medical Sonography
CODE #1962

REQUARED PROGRAM................................................................. Units

<table>
<thead>
<tr>
<th>1st Summer Semester:</th>
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<tbody>
<tr>
<td>SONOG 200 Introduction to Sonography</td>
<td>................................................... 3</td>
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<tr>
<td>SONOG 205 Ultrasound Physics &amp; Instrumentation</td>
<td>............................................. 3</td>
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<tr>
<th>1st Fall Semester:</th>
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<tbody>
<tr>
<td>SONOG 210 Abdominal Scanning &amp; Pathology</td>
<td>........................................... 4</td>
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<tr>
<td>SONOG 240 Superficial &amp; Small Parts Scanning</td>
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<tr>
<th>1st Spring Semester:</th>
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<tbody>
<tr>
<td>SONOG 220 OB/GYN Scanning &amp; Pathology</td>
<td>........................................... 4</td>
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<tr>
<td>SONOG 215 Clinical Experience I</td>
<td>........................................... 6.5</td>
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<th>2nd Summer Semester:</th>
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<tr>
<td>SONOG 225 Clinical Experience II</td>
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<tr>
<th>2nd Fall Semester:</th>
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<tr>
<td>SONOG 230 Vascular Scanning</td>
<td>........................................... 4</td>
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<tr>
<td>SONOG 235 Clinical Experience III</td>
<td>........................................... 6.5</td>
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<th>2nd Spring Semester:</th>
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<tr>
<td>SONOG 250 Sonography Interpretation</td>
<td>........................................... 2</td>
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<tr>
<td>SONOG 255 Clinical Experience IV</td>
<td>........................................... 6.5</td>
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TOTAL UNITS REQUIRED................................. 46.5

Associate in Science Degree
The Diagnostic Medical Sonography Associate in Science (A.S.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF ACHIEVEMENT
Diagnostic Medical Sonography
CODE #1963

REQUIRED PROGRAM................................................................. Units

1st Summer Semester:
SONOG 200 Introduction to Sonography ....................................... 3
SONOG 205 Ultrasound Physics & Instrumentation ....................... 3

1st Fall Semester:
SONOG 210 Abdominal Scanning and Pathology ........................4
SONOG 240 Superficial & Small Parts Scanning ......................... 3

1st Spring Semester:
SONOG 220 OB/GYN Scanning & Pathology ............................ 4
SONOG 215 Clinical Experience I .............................................. 6.5

2nd Summer Semester:
SONOG 225 Clinical Experience II ............................................ 4

2nd Fall Semester:
SONOG 230 Vascular Scanning ................................................. 4
SONOG 235 Clinical Experience III ........................................... 6.5

2nd Spring Semester:
SONOG 250 Sonography Interpretation ..................................... 2
SONOG 255 Clinical Experience IV .......................................... 6.5

TOTAL UNITS REQUIRED .......................................................... 46.5

Certificate of Achievement
The Diagnostic Medical Sonography Certificate of Achievement may be obtained by completing the required 60 program units and the pre-requisite courses required for admittance to the program.

DIAGNOSTIC MEDICAL SONOGRAPHY (SONOG)

SONOG 200
Introduction to Sonography ................................................. 3 Units
Prerequisite: None
Corequisite: SONOG 205
Advisory: AH 110, BIOL 431, and COMM 321
Enrollment Limitation: This course is only available to students who have been accepted in to the CRC DMS Program.
Course Transferable to CSU
Hours: 54 hours LEC

This course is designed for students interested in the Diagnostic Medical Sonography (DMS) program. The course will introduce fundamental sonography theory including terminology and equipment. Students will be instructed in sonographer and patient safety, including ergonomics, legal, ethical and regulatory issues. Scope of practice, patient care techniques, assessment and treatment will be introduced. Emphasis will be placed on interaction with diverse patient populations.

SONOG 205
Ultrasound Physics & Instrumentation .................................... 3 Units
Prerequisite: None
Corequisite: SONOG 200
Enrollment Limitation: This course is only available to students who have been accepted in to the CRC DMS Program.
Hours: 54 hours LEC

This course covers the basic principles of diagnostic ultrasound physics and instrumentation. Topics include acoustical physics, Doppler effect, color flow imaging and the effects of ultrasound waves on human tissue. The course will cover transducer designs, quality assurance, bio-effects and imaging artifacts. The fundamentals of instrumentation, equipment design and application will be included. Hands-on instruction may be provided to introduce the student to necessary elementary scanning skills. This course is available to students who have been accepted in to the DMS program.

SONOG 210
Abdominal Scanning and Pathology ....................................... 4 Units
Prerequisite: SONOG 205 with a grade of “C” or better
Enrollment Limitation: This course is only available to students who have been accepted in to the CRC DMS Program.
Hours: 36 hours LEC; 108 hours LAB

This course will provide a study of the clinical applications of abdominal sonography, including positioning and scanning protocol. Anatomical structures will include: abdominal vasculature; liver; gallbladder and biliary system; pancreas; spleen; and kidneys. Specific pathology and clinical symptomatology will be covered as they relate to the sonographic appearance of these structures. Interpretation and critique of normal and abnormal anatomy with correlation of clinical, didactic and image information will be presented. This course is available to students who have been accepted in to the DMS program.

SONOG 215
Clinical Experience I ............................................................ 6.5 Units
Prerequisite: None
Corequisite: SONOG 220
Enrollment Limitation: This course is only available to students who have been accepted in to the CRC DMS Program, and who have passed the JRC-DMS Physics registry exam.
Hours: 384 hours LAB

This course will provide basic instruction and scanning experience in sonography in a hospital or other healthcare setting. The student will be able to demonstrate the ability to perform basic sonographic examinations according to the protocols established by the program and healthcare facility utilizing sonographic equipment. The directed practice experience will also serve to familiarize the student with the hospital setting, sonography department and other related clinical training aspects including HIPAA. This course is only available to students who have been accepted in to the DMS program and have met the pre-requisites.

SONOG 220
OB/GYN Scanning & Pathology ............................................. 4 Units
Prerequisite: SONOG 240 with a grade of “C” or better
Enrollment Limitation: This course is only available to students who have been accepted in to the CRC DMS Program.
Hours: 36 hours LEC; 108 hours LAB

This course will cover the anatomy and pathology related to the sonography of the female reproductive system, pregnant and non-pregnant. It will include an assessment of fetal gestational age, fetal anatomy and pathology, as well as associated maternal conditions throughout all trimesters. Topics of discussion include related clinical symptoms, sonographic appearances, scanning techniques and protocols. This course is available to students who have been accepted in to the DMS program.
SONOG 225
Clinical Experience II  4 Units
Prerequisite: None
Corequisite: SONOG 230
Enrollment Limitation: This course is only available to students who have been accepted into the CRC DMS Program.
Hours: 256 hours LAB
This course will provide intermediate-level instruction and scanning experience in a hospital or other healthcare setting. The student will be able to demonstrate the ability to perform abdominal, OB/GYN and small parts sonographic examinations of patients according to the protocols established by the program and healthcare facility utilizing sonographic equipment. This course is available to students who have been accepted into the DMS program.

SONOG 230
Vascular Scanning  4 Units
Prerequisite: SONOG 215 with a grade of “C” or better
Enrollment Limitation: This course is only available to students who have been accepted into the CRC DMS Program.
Hours: 36 hours LEC; 108 hours LAB
This course covers the basic positioning and scanning protocol of the vascular system. Terminology specific to the hemodynamics of the arterial, venous and cerebrovascular applications will be presented. Normal, abnormal and pathologic states of the vascular system, including the carotid and lower extremities, will be included. This course is available to students who have been accepted into the DMS program.

SONOG 235
Clinical Experience III  6.5 Units
Prerequisite: None
Corequisite: SONOG 250
Enrollment Limitation: This course is only available to students who have been accepted into the CRC DMS Program.
Hours: 384 hours LAB
This course will provide intermediate/advanced-level instruction, supervision and scanning experience in a hospital or other healthcare setting. The student will be able to demonstrate the ability to perform abdominal, OB/GYN, small parts and/or vascular sonographic examinations of patients according to the protocols established by the program and healthcare facility utilizing sonographic equipment. This course is available to students who have been accepted into the DMS program.

SONOG 240
Superficial & Small Parts Scanning  3 Units
Prerequisite: None
Corequisite: SONOG 210
Enrollment Limitation: This course is only available to students who have been accepted into the CRC DMS Program.
Hours: 36 hours LEC; 54 hours LAB
This course covers the basic positioning and scanning of superficial structures; related anatomy and pathology; clinical symptomatology and how they relate to the sonographic appearance. Interpretation of normal and abnormal anatomy with correlation of clinical information will also be presented. This course is available to students who have been accepted into the DMS program.

SONOG 250
Sonography Interpretation  2 Units
Prerequisite: SONOG 225 with a grade of “C” or better
Enrollment Limitation: This course is only available to students who have been accepted into the CRC DMS Program.
Hours: 18 hours LEC; 54 hours LAB
This course will cover advanced interpretation and critique of abdominal, OB/GYN, vascular, superficial and small parts sonographs. This course serves as a continuation of previous, basic knowledge within the Diagnostic Medical Sonography program. This course is available to students who have been accepted into the DMS program.

SONOG 255
Clinical Experience IV  6.5 Units
Prerequisite: SONOG 235 with a grade of “C” or better
Enrollment Limitation: This course is only available to students who have been accepted into the CRC DMS Program.
Hours: 384 hours LAB
This course is the final directed practice study course in the Diagnostic Medical Sonography program. The course incorporates all areas of study including the abdomen, OB/GYN, vascular, superficial and small parts scanning. The student will be able to perform advanced sonographic examinations in a healthcare facility according to the protocols established by the CRC DMS program.
Program Description
This two-year instructional program is designed to provide skills for industry and for degree or transfer. This option can lead to entry-level jobs in television, Cable TV, business or industrial video and graphics, animation, or digital media for broadcast, CD/DVD production and the Internet.

Career Opportunities
Nonlinear Video Editor
DVD Author
Computer Graphic Artist
Animation Artist
Producer/Director for Broadcast, Personal or Corporate Video and the Internet.

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 with contemporary computer software
- State of the art computer lab for graphics and nonlinear editing, including Photoshop, Illustrator, After Effects and Final Cut Pro.
- Internship opportunities working with local television stations, independent film companies and post-production editing facilities

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE: A.A.—Digital Media
CODE #1534

REQUIRED PROGRAM.......................................................... Units
RTVF 300 Mass Media and Society........................................... 3
RTVF 302 Introduction to Digital Media................................. 3
RTVF 312 Radio Studio Operations....................................... 3
RTVF 331 Television Production........................................... 3
RTVF 360 Introduction to Motion Graphics: Adobe After Effects.................................................. 3
RTVF 362 Digital Non-Linear Video Editing: Final Cut Pro........ 3
PHOTO 400 Digital Imaging.................................................. 3
ART 338 Introduction to Digital Painting I............................. 3
A minimum of 6 units from the following:.................................. 6
COMM 361 The Communication Experience (3)
or COMM 311 Argumentation and Debate (3)
RTVF 304 Introduction to Multimedia (3)
or ART 320 Design: Fundamentals (3)
RTVF 330 Basic Film/Video Camera Techniques (3)
RTVF 332 Advanced Television Production (2)
RTVF 363 Introduction to DVD Production: iDVD & DVD Studio Pro (3)
RTVF 361 Intermediate Motion Graphics: Adobe After Effects (3)
RTVF 370 Broadcast Writing & Announcing (3)
RTVF 371 Hollywood TV and Film Studios: A Behind the Scenes Experience (1)
RTVF 498 Work Experience in Radio, Television and Film (1-4)
PHOTO 410 Advanced Digital Imaging (3)
TOTAL UNITS REQUIRED................................................................ 30

1 For transfer to California State University Sacramento Digital Media Program COMM 311 and COMM 361 are preferred.

Associate Degree
The Digital Media Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF ACHIEVEMENT
Digital Media
CODE #1534

REQUIRED PROGRAM

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<tr>
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<th>Course Title</th>
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<tr>
<td>RTVF 302</td>
<td>Introduction to Digital Media</td>
<td>3</td>
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<tr>
<td>RTVF 331</td>
<td>Television Production</td>
<td>3</td>
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<tr>
<td>RTVF 360</td>
<td>Introduction to Motion Graphics: Adobe After Effects</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 362</td>
<td>Digital Non-Linear Video Editing: Final Cut Pro</td>
<td>3</td>
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<tr>
<td>PHOTO 400</td>
<td>Digital Imaging</td>
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A minimum of three (3) units from the following:

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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTVF 304</td>
<td>Introduction to Multimedia (3)</td>
<td></td>
</tr>
<tr>
<td>or ART 320</td>
<td>Design: Fundamentals (3)</td>
<td></td>
</tr>
<tr>
<td>RTVF 312</td>
<td>Radio Studio Operations (3)</td>
<td></td>
</tr>
<tr>
<td>RTVF 330</td>
<td>Basic Film/Video Camera Techniques (3)</td>
<td></td>
</tr>
<tr>
<td>RTVF 319</td>
<td>Digital Audio Production (3)</td>
<td></td>
</tr>
<tr>
<td>RTVF 498</td>
<td>Work Experience in Radio, Television and Film (1-4)</td>
<td></td>
</tr>
<tr>
<td>PHOTO 410</td>
<td>Advanced Digital Imaging (3)</td>
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<tr>
<td>RTVF 363</td>
<td>Introduction to DVD Production: iDVD &amp; DVD Studio Pro (3)</td>
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<tr>
<td>RTVF 361</td>
<td>Intermediate Motion Graphics: Adobe After Effects (3)</td>
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<tr>
<td>RTVF 306</td>
<td>Introduction to Media Criticism</td>
<td></td>
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<tr>
<td>(Television and Radio Criticism) (3)</td>
<td></td>
<td></td>
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<tr>
<td>RTVF 371</td>
<td>Hollywood TV and Film Studios: A Behind the Scene Experience (1)</td>
<td></td>
</tr>
<tr>
<td>RTVF 332</td>
<td>Advanced Television Production (2)</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL REQUIRED UNITS: 18
DEGREES
A.S.-T — Early Childhood Education for Transfer
A.A. — Early Childhood Education
A.A. — Early Childhood Education, Site Supervisor

CERTIFICATES OF ACHIEVEMENT
Early Childhood Education, Teacher
Early Childhood Education, Master Teacher
Early Childhood Education, Infant Specialist
Early Childhood Education, School Age Child Care and Education

CERTIFICATES OF PROFICIENCY
Early Childhood Education, Associate Teacher
Early Childhood Education, Home Early Care and Education

Program Description
This 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.

Career Opportunities

Dean
Jamey Nye
Phone
(916) 691-7226
Area Office
SOC 158

Counseling
(916) 691-7316
Cooperative Work Experience
(916) 691-7372

Preschool Teacher
Early Care and Education Teacher
School Age Teacher
Infant Care Teacher
Infant Care Director
Preschool Director
Public School Aide
Family Care Education Teacher
Parent Educator
Home Visitor
Site Supervisor of Preschool/School Age Programs
Parent Program Coordinator

Some Career Opportunities may require more than two years of college study.

Highlights
• Three AA degrees and six certificates
• On-and-off campus course offerings
• Day, evening, and weekend offerings
• On-line course offerings

Note: Students planning to enroll in Work/Field Experience or practicum classes (ECE 300, ECE 321, ECE 334, ECE 350, and ECE 498) must show evidence of TB clearance before working with children.

A.A. DEGREES
The Teacher and Master Teacher Certificates, as well as the AA 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.

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

See page 182 for “ECE Department Course/Certificate Matrix”
**DEGREE**

**A.S.-T  – Early Childhood Education for Transfer**

**Code #1982**

**Note to Transfer Students:**

The Early Childhood Education for Transfer A.S.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

**REQUIRED PROGRAM ................................................................. UNITS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 312*</td>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>ECE 314*</td>
<td>The Child, the Family and the Community</td>
<td>3</td>
</tr>
<tr>
<td>ECE 300</td>
<td>Introduction to Principles and Practices in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 320</td>
<td>Curriculum and Interactions in Early Childhood Education</td>
<td>4</td>
</tr>
<tr>
<td>ECE 321</td>
<td>Advanced Practicum in Early Childhood Education</td>
<td>4</td>
</tr>
<tr>
<td>ECE 326</td>
<td>Making Learning Visible Through Observation and Documentation</td>
<td>3</td>
</tr>
<tr>
<td>ECE 415</td>
<td>Children's Health, Safety and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>ECE 430</td>
<td>Culture &amp; Diversity in Early Childhood Education</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED .................................................................. 60**

* Major courses which also fulfill a transfer General Education (GE) requirement (“double-counting”). Please note that there are limitations on double-counting - consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

**Associate in Science in Early Childhood Education for Transfer Degree**

The Associate in Science in Early Childhood Education for Transfer (A.S.-T) degree may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.

**DEGREE**

**A.A.—Early Childhood Education**

**CODE #1089**

This program provides a comprehensive foundation for in-depth early childhood teacher preparation both through strong general education and principles and practices in child development and in early childhood curriculum and pedagogy. Topics include an introduction to the profession, observation techniques, age-appropriate curriculum, the child in the context of family and culture, and health and safety practices for early childhood educators.

Upon completion of the A.A. degree, a student possesses the course work required to work as a teacher in both private and public early care and education settings, serving infants through preschool-age children. Additionally, the individual can work as a teacher in before-and-after school programs, serving school-age children.

**REQUIRED PROGRAM ................................................................. Units**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 312</td>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>ECE 300</td>
<td>Introduction to Principles and Practices in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 320</td>
<td>Curriculum and Interactions in Early Childhood Education</td>
<td>4</td>
</tr>
<tr>
<td>ECE 321</td>
<td>Advanced Practicum in Early Childhood Education</td>
<td>4</td>
</tr>
<tr>
<td>ECE 326</td>
<td>Making Learning Visible Through Observation and Documentation</td>
<td>3</td>
</tr>
<tr>
<td>ECE 430</td>
<td>Culture and Diversity in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 430</td>
<td>Culture and Diversity in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 415</td>
<td>Children's Health, Safety and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>ECE 342</td>
<td>Constructive Math and Science in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 365</td>
<td>Creative Projects and Experiences for Young Children</td>
<td>3</td>
</tr>
<tr>
<td>ECE 404</td>
<td>Children with Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>ECE 434</td>
<td>Language and Literacy Development in Early Childhood</td>
<td>3</td>
</tr>
<tr>
<td>ECE 424</td>
<td>Adult Supervision: Mentoring in a Collaborative Learning Setting</td>
<td>2</td>
</tr>
</tbody>
</table>

**A minimum of three (3) units from the following: .................................. 3**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 330</td>
<td>Infant &amp; Toddler Development</td>
<td>3</td>
</tr>
<tr>
<td>ECE 356</td>
<td>Programs for the School-Age Child</td>
<td>3</td>
</tr>
<tr>
<td>ECE 402</td>
<td>Infants with Atypical Development</td>
<td>3</td>
</tr>
<tr>
<td>ECE 331</td>
<td>Care and Education of Infants and Toddlers</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED .................................................................. 43**

**Suggested Electives:**

- ANTH 300, 310; ART 430; BIOL 350; BUS 330; COMM 321, 325, 331, 361; ECE 350, 498; ENGCW 400; ENGED 320; ENGLT 370; ENGWR 300; FCS 324; HEED 350; HORT 300; NUTRI 300; PSYC 312, 320; SOC 305, 321; TA 401.

**Associate Degree**

The Early Childhood Education Associate in Arts (A.A.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
DEGREE
A.A. — Early Childhood Education, Site Supervisor
CODE #1330

Administration of early care and education programs is the main focus of this degree. Topics include administration, supervision and coordination of staff in early childhood settings. Additionally, it provides the educational coursework that serves as the core curriculum for the early childhood education field. Along with documented experience, this certificate leads to the Site Supervisor Permit issued by the California Commission on Teacher Credentialing and is required of those individuals supervising a publicly funded early childhood education site.

Upon completion of this certificate, the student exceeds the minimum requirements to work as a director/site supervisor in a privately funded early care and education program. With documented experience supervising staff, the student also meets the requirements to work as a director/site supervisor in a publicly funded early care and education program.

REQUIRED PROGRAM........................................................................................................... Units
ECE  312  Child Development............................................................................... 3
ECE  300  Introduction to Principles and Practices in Early Childhood Education........................................................................... 3
ECE  320  Curriculum and Interactions in Early Childhood Education......................................................................................... 4
ECE  321  Advanced Practicum in Early Childhood Education.......................................................................................... 4
ECE  314  The Child, The Family and The Community........................................... 3
ECE  326  Making Learning Visible Through Observation and Documentation.................................................................................. 3
ECE  430  Culture and Diversity in Early Childhood Education................................ 3
ECE  424  Adult Supervision: Mentoring in a Collaborative Learning Setting.................................................. 2
ECE  420  Admin I: Programs in Early Childhood Education............................... 3
ECE  422  Admin II: Personnel and Leadership in Early Childhood Education.................................................................................... 3
ECE  415  Children’s Health, Safety and Nutrition................................................. 3
ECE  342  Constructive Math and Science in Early Childhood Education........................ 3
ECE  343  Language and Literacy Development in Early Childhood........................ 3
ECE  304  Care and Education of Infants and Toddlers......................................... 3
or ECE  404  Children with Special Needs............................................................. 3
TOTAL UNITS REQUIRED........................................................................................................... 43

Suggested Electives:
ANTH 300, 310; ART 430; BIOL 350; COMM 321, 325; ECE 350, 356, 402, 415, 498; ENGED 320; ENGLT 370; FCS 322; GEOG 306; HORT 300; MUSM 370; NUTRI 300; SOC 321; TA 401

Associate Degree
The Early Childhood Education, Site Supervisor Associate in Arts (A.A.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

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 OF PROFICIENCY
Early Childhood Education, Associate Teacher
CODE #1343

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.

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.

REQUIRED PROGRAM........................................................................................................... Units
First Semester:
ECE  312  Child Development (3)............................................................................. 3
ECE  314  The Child, the Family and the Community.............................................. 3

Second Semester:
ECE  300  Introduction to Principles & Practices in Early Childhood Education.................................................. 3
A minimum of 3 units from the following:........................................................................ 3
ECE  326  Making Learning Visible Through Observation and Documentation (3)
ECE  342  Constructive Math and Science in Early Childhood Education (3)
ECE  343  Language & Literacy Development in Early Childhood (3)
ECE  365  Creative Projects & Experiences for Young Children (3)

Third Semester:
ECE  320  Curriculum & Interactions in Early Childhood Education.......................... 4
TOTAL UNITS REQUIRED.................................................................................................... 16

CERTIFICATE OF PROFICIENCY
Early Childhood Education, Home Early Care and Education
CODE #1602

Upon completion of this certificate, the student will meet minimum requirements for employment in a home early care and education program, formerly known as family child care. These requirements are outlined in Title 22 (Department of Social Services) regulations for child care licensing.

REQUIRED PROGRAM........................................................................................................... Units
ECE  300  Introduction to Principles and Practices in Early Childhood Education.................................................. 3
ECE  304  Family to Family: Intr to Family Child Care .............................................. 1
ECE  312  Child Development..................................................................................... 3
ECE  314  The Child, The Family and The Community.............................................. 3
ECE  415  Children’s Health, Safety and Nutrition..................................................... 3
A minimum of two (2) units from the following:......................................................... 2
ECE  498  Work Experience in Early Childhood Education (1-4)
TOTAL UNITS REQUIRED.................................................................................................... 15
CERTIFICATE OF ACHIEVEMENT
Early Childhood Education, Infant Specialist
CODE #1094

Upon completion of this certificate and with appropriate documented experience, the student meets the minimum requirements for employment in an infant care program.

REQUIRED PROGRAM ........................................................................ Units
ECE 300 Introduction to Principles and Practices in Early Childhood Education ........................................ 3
ECE 320 Curriculum and Interactions in Early Childhood Education .......................................................... 4
ECE 330 Infant & Toddler Development .......... 3
ECE 331 Care and Education of Infants and Toddlers ......................... 3
ECE 334 Laboratory with Infants and Toddlers .......... 1
ECE 312 Child Development ......................................................... 3
ECE 314 The Child, The Family and The Community .......................... 3
TOTAL UNITS REQUIRED .................................................................. 20

CERTIFICATE OF ACHIEVEMENT
Early Childhood Education, School Age Child Care and Education
CODE #1098

Upon completion of this certificate, 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.

REQUIRED PROGRAM ........................................................................ Units
ECE 300 Introduction to Principles and Practices in Early Childhood Education ........................................ 3
ECE 312 Child Development (3)
ECE 314 The Child, the Family and the Community (3)
ECE 320 Curriculum and Interactions in Early Childhood Education (3)
ECE 356 Programs for the School-Age Child (3)
A minimum of 4 units from the following:
ECE 321 Advanced Practicum in Early Childhood Education (4)
ECE 498 Work Experience in Early Childhood Education (1 - 4)
ECE 415 Children's Health, Safety and Nutrition
TOTAL UNITS REQUIRED .................................................................. 20

1 Practicum or work experience to be completed in a school age care program.

CERTIFICATE OF ACHIEVEMENT
Early Childhood Education, Teacher
CODE #1329

This certificate provides a foundation for in-depth early childhood teacher preparation both through general education and through introductory studies in child development and in early childhood curriculum and pedagogy. Additionally, it covers culture and diversity issues in early childhood and health and safety practices. Students must verify required teaching experience to be recommended to the Commission on Teacher Credentialing for issuance of the Teacher Child Development Permit.

Upon completion of this certificate and with appropriate documented experience, the student meets the requirement for employment as a teacher in publicly funded early care and education programs, serving infants through preschool-age children. The student also meets the requirements to work as a teacher in a privately funded early care and education program, as well as in a before-and-after school-age program.

REQUIRED PROGRAM ........................................................................ Units
ECE 312 Child Development .......................................................... 3
ECE 300 Introduction to Principles and Practices in Early Childhood Education ........................................ 3
ECE 320 Curriculum and Interactions in Early Childhood Education .......................................................... 4
ECE 321 Advanced Practicum in Early Childhood Education .......... 4
ECE 326 Making Learning Visible Through Observation and Documentation ............................................. 3
ECE 314 The Child, The Family and The Community .......................... 3
ECE 430 Culture and Diversity in Early Childhood Education .......... 3
ECE 415 Children's Health, Safety and Nutrition .............................. 3
ECE 331 Care and Education of Infants and Toddlers ................. 3
or ECE 404 Children with Special Needs (3)
or ECE 356 Programs for the School-Age Child (3) ......................... 3
TOTAL CORE UNITS REQUIRED .......................................................... 29

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 the ECE Department for further information.

TOTAL UNITS REQUIRED ................................................................. 45
CERTIFICATE OF ACHIEVEMENT
Early Childhood Education, Master Teacher
CODE #1328

This certificate meets the requirements for teaching in a publicly funded early care and education program. It requires an additional 6 units of specialized study beyond the teacher level certificate, allowing the student to select a particular focus of study (i.e., infant/toddler, culture and diversity; health and nutrition; children’s literature; and art or music for young children). Applicants must verify required experience teaching children and supervising staff to be recommended to the California Commission on Teacher Credentialing for issuance of the Master Teacher Child Development Permit.

This certificate qualifies students to be a master teacher or a supervising teacher in early care and education programs. Upon completion of this certificate and with documented related experience, the individual is eligible to be a lead teacher and/or mentor teacher in both publicly and privately funded programs serving young children and their families.

Some career options may require more than two years of college study. Meet with a counselor and an ECE faculty to determine these options.

REQUIRED PROGRAM ............................................................................ Units
ECE 312 Child Development ................................................................. 3
ECE 300 Introduction to Principles and Practices in Early Childhood Education ................................................................. 3
ECE 320 Curriculum and Interactions in Early Childhood Education ........................................................................ 3
ECE 321 Advanced Practicum in Early Childhood Education ... 4
ECE 314 The Child, The Family and The Community .................. 3
ECE 326 Making Learning Visible Through Observation and Documentation ................................................................. 3
ECE 430 Culture and Diversity in Early Childhood Education ... 3
ECE 415 Children’s Health, Safety and Nutrition ....................... 3
ECE 424 Adult Supervision: Mentoring in a Collaborative Learning Setting ................................................................. 2
ECE 331 Care and Education of Infants and Toddlers (3)
  or ECE 404 Children with Special Needs (3)
  or ECE 356 Programs for the School-Age Child (3) ............... 3

Master Teacher Specialization Options (see specialization list) .......................... 6

TOTAL CORE UNITS REQUIRED .................................................................... 37

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 the ECE Department for further information.

TOTAL UNITS REQUIRED ........................................................................... 53

Master Teacher Specialization Options
Select one (1) six-unit option below:

Note: Courses may not double count for core and specialization.

Antibias Experiences ........................................................................... 6 units
ANTH 310 Cultural Anthropology (3)
  or BUS 330 Managing Diversity in the Workplace (3)
  or SOC 321 Race, Ethnicity and Inequality in the United States (3)
  or COMM 325 Intercultural Communication (3)

A minimum of three (3) units from the following:
One foreign language course selected from Spanish or Vietnamese.
Note: Not all foreign language courses will transfer. Check with a counselor.

Children with Exceptional Needs ....................................................... 6 units
ECE 406 Children with Special Needs (3)
SILA 338 American Sign Language for Use with Infants and Young Children (3)
  or ECE 402 Infants with Atypical Development (3)

Developmentally Appropriate Curriculum ........................................ 6 units
ECE 342 Constructive Math and Science in Early Childhood Education (3)
ECE 343 Language and Literacy Development in Early Childhood (3)
ECE 365 Creative Projects and Experiences for Young Children (3)

Infant and Toddler Care ................................................................. 6 units
ECE 330 Infant & Toddler Development (3)
A minimum of three (3) units from the following:
ECE 330 Care and Education of Infants and Toddlers (3)
ECE 334 Laboratory with Infants and Toddlers (1)
ECE 402 Infants with Atypical Development (3)

School-Age Care ................................................................................ 6 units
ECE 356 Programs for the School-Age Child (3)
A minimum of three (3) units from the following:
ENGED 320 Service Learning: Tutoring Elementary Students in Reading (3)
ECE 498 Work Experience in Early Childhood Education (1-4)
EARLY CHILDHOOD EDUCATION (ECE)

ECE 295
Independent Studies in Early Childhood Education 1-3 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

ECE 299
Experimental Offering in Early Childhood Education .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

ECE 300
Introduction to Principles and Practices in Early Childhood Education 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course is an introduction to early childhood education, including an overview of the history of the field, evolution of professional practices and ethics, educational principles that support child development from birth through the school-age years, and teaching practices based on observation, documentation, and interpretation of children's behavior.

ECE 304
Family to Family: Introduction to Family Child Care 1 Unit
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC
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.

ECE 312
Child Development 3 Units
Prerequisite: None
Advisory: ENGWR 101 or 103; or ESLL 320, ESLR 320, and ESLL 320.
General Education: AA/AS Area III(b); CSU Area D7; CSU Area E1; IGETC Area 4G
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC
This course examines the major physical, psychosocial, and cognitive/language developmental milestones for children, both typical and atypical, from conception to adolescence. There will be an emphasis on interactions between maturation processes and environmental factors. While studying developmental theory and investigative research methodologies, students will observe children, evaluate individual differences and analyze characteristics of development at various stages. (C-ID CDEV 100)

ECE 314
The Child, the Family and the Community 3 Units
Prerequisite: None
Advisory: ENGWR 101 or 103; or ESLL 320, ESLR 320, ESLL 320.
General Education: AA/AS Area III(b); CSU Area D7; CSU Area E1; IGETC Area 4G
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is a historical and current examination of the developing child in a societal context focusing on the interrelationship of family, school and community. The process of socialization and identity development will be highlighted, showing the importance of respectful, reciprocal relationships that support and empower families. (C-ID CDEV 110)

ECE 320
Curriculum and Interactions in Early Childhood Education 4 Units
Prerequisite: ECE 300, 312, and 326 with grades of “C” or better
Enrollment Limitation: Under California laws (Title 22) any persons working directly with children have to give proof of current Tuberculosis clearance.
Course Transferable to CSU
Hours: 36 hours LEC; 108 hours LAB
This course provides supervised experience working with children in an early childhood setting. Topics include principles of curriculum development, classroom design, and child guidance, with the opportunity to apply these key teaching principles in practical situations. This course is approved as the required programs and curriculum core course specified in Title 22 of the Health and Safety Code of the Department of Social Services, Community Care Licensing Division and Title 5 Department of Education regulations. Before beginning lab assignments, students must show proof of TB clearance. (C-ID ECE 130)

ECE 321
Advanced Practicum in Early Childhood Education 4 Units
Prerequisite: ECE 300, 312, 320, and 326 with grades of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 108 hours LAB
This advanced course provides supervised experience for students as teachers in an early childhood education program and is aimed at building leadership in the areas of developing environments for learning, child observation and assessment, documentation of children’s work, behavior guidance, group management, collaborative teaching, building relationships with families, and effective preparation and implementation of curriculum. In an early childhood setting and under the guidance of a mentor teacher, students will build on introductory experiences offered in ECE 320. 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. (C-ID ECE 210)
ECE 322
Promoting Children’s Social Competence 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course focuses on early childhood guidance and discipline through examination of theories, research and practical application for teachers in early childhood classrooms and parents at home. The course includes strategies for understanding and responding to children’s behavior in ways that are congruent with the core values of early childhood education. Concepts of guidance relating to typical and atypical development, culture, and environment will be presented. Developmental stages of children’s behavior, positive guidance strategies and teaching social-emotional skills are included.

ECE 326
Making Learning Visible Through Observation and Documentation 3 Units
Prerequisite: ECE 312 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course applies critical and reflective thinking to observation and assessment of young children’s development. It also prepares teachers of young children to use observation, documentation, and interpretation strategies to improve program quality in early childhood settings. Multiple forms of child assessment and early childhood program assessment are explored. (C-ID ECE 200)

ECE 330
Infant and Toddler Development 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course covers infant development from conception through three years of age. Students will apply current research to the preparation for conception, birth, and raising children in the first three years of life. Students will learn strategies for caring for infants at each developmental stage. This course is for parents or professionals working with infants in health fields, education, or social services.

ECE 331
Care and Education of Infants and Toddlers 3 Units
Prerequisite: ECE 312 or 330 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course applies current research in infant development to the teaching and care of infants in group settings. Early childhood education principles and practices are emphasized in the application of care and education of infants from birth to three years of age. Students will learn strategies for designing, implementing, and evaluating group care programs for infants and toddlers.

ECE 334
Laboratory with Infants and Toddlers 1 Unit
Prerequisite: None
Corequisite: ECE 331 (may be taken previously). Grade of “C” or better required to meet corequisite.
Course Transferable to CSU
Hours: 54 hours LAB
This class provides experience working with infants and toddlers in a group care program. It is designed as a practicum/laboratory for those who have completed or are enrolled in ECE 331. This course requires participation in a designated, supervised infant-toddler care setting for three hours per week with infants and/or toddlers. A current, yearly TB test is required prior to starting lab hours.

ECE 342
Constructive Math and Science in Early Childhood Education 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
The course is an introduction to the constructivist approach to teaching pre-math and science in early childhood education. The content and teaching techniques support the perspective that children construct knowledge through a dynamic, interactive process that facilitates their development of working theories relating to math and science.

ECE 343
Language and Literacy Development in Early Childhood 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course will prepare current or future early childhood educators and caregivers to understand and enhance the emergent literacy experiences of young children. The knowledge of developmentally appropriate literacy practices will improve the early childhood educators’ abilities to prepare children from birth to age 5 for reading and writing in the primary grades.

ECE 350
Introduction to Elementary Teaching with Field Experience 3 Units
Prerequisite: None
Advisory: ECE 312
General Education: AA/AS Area Ill(b)
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a career exploration course with an early field experience for those students considering the field of K-8 teaching. It includes a supervised field placement and four hours weekly in a local elementary school in addition to weekly class meetings on campus. It will also fulfill one of the early field experiences for the CSUS blended liberal studies major. Course content includes the profession and culture of teaching, observation skills, communication skills, diversity and social issues among others. Students’ field experiences will integrate and apply the course content. Students will also complete a service learning project at participating schools.
ECE 356
Programs for the School-Age Child
Prerequisite: ECE 312 with a grade of "C" or better
Course Transferable to CSU
Hours: 54 hours LEC
This course 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. A field trip may be utilized to enhance classroom instruction.

ECE 365
Creative Projects and Experiences for Young Children
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course prepares teachers in early childhood education with strategies for promoting children's creativity through experiential projects and experiences. The focus will be on observing children's natural ways of exploring their environment and on the learning strategies needed to facilitate and document children's learning and emerging skills. Students will evaluate and design creative early childhood environments which promote a project approach and a Reggio Emilia perspective.

ECE 402
Infants with Atypical Development
Prerequisite: ECE 312 with a grade of "C" or better
Course Transferable to CSU
Hours: 54 hours LEC
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 infant/toddlers and the various roles of the multi-disciplinary teams that develop the Individualized Family Service Plan (IFSP) will be examined.

ECE 404
Children with Special Needs
Prerequisite: ECE 312 with a grade of "C" or better
Course Transferable to CSU
Hours: 54 hours LEC
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 children from birth to adolescence with diverse abilities and disabilities. The focus is to increase the awareness and understanding of individual needs and strengths in an early childhood and after school setting. Focus on full inclusion as a support to development will be emphasized. Observations in public and private children's centers, schools and agencies are required.

ECE 415
Children's Health, Safety and Nutrition
Prerequisite: None
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 54 hours LEC
The key components that ensure the health, safety, and nutrition of both children and staff will be identified along with the importance of collaboration with families and health professionals. Students will be introduced to early childhood curriculum, regulations, standards, policies and procedures related to child health, safety and nutrition. Course emphasis is placed on integrating and maintaining the optimal health, safety, and nutritional concepts in everyday planning and program development for all children, including injury prevention, accident reporting, infectious diseases control, sanitation and emergency procedures and evacuation.

ECE 420
Administration I: Programs in Early Childhood Education
Prerequisite: ECE 320 with a grade of "C" or better
Course Transferable to CSU
Hours: 54 hours LEC
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.

ECE 422
Administration II: Personnel and Leadership in Early Childhood Education
Prerequisite: ECE 420 with a grade of "C" or better;
Course Transferable to CSU
Hours: 54 hours LEC
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 on Teacher Credentialing.

ECE 424
Adult Supervision: Mentoring in a Collaborative Learning Setting
Prerequisite: ECE 314 and 320 with grades of "C" or better
Course Transferable to CSU
Hours: 36 hours LEC
This course is a study of the methods and principles of collaborative learning, with emphasis on supervising adults working in early care and education centers. Special attention is placed on the role of a mentor as a reflective practitioner who is open to professional development and who has a keen understanding of classroom practice that is effective and supports individual strengths for children, families and colleagues. This course satisfies the adult supervision requirement for receiving a supervising teacher permit from the California Commission on Teacher Credentialing.
ECE 430  
Culture and Diversity in Early Childhood Education  3 Units  
Prerequisite: None  
General Education: AA/AS Area III(b); AA/AS Area VI  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course covers culturally responsive care and education in early childhood settings. It includes the study of socio-cultural, and political issues as they vary across the diverse cultures represented in the classroom and how they impact a child’s development. Included are strategies for helping children negotiate and resolve conflicts caused by cultural differences, with a focus on using an anti-bias approach in the classroom. The contribution of historically underrepresented groups to society will be addressed with the intention of promoting the concepts of equality, justice and inclusion for all aspects of human diversity (culture, race, ethnicity, gender, sexual orientation, ability, and age). Teaching strategies which prevent and eliminate the development of prejudice and racism in growing children will be covered. (C-ID ECE 230)

ECE 455  
Environment Rating Scales in Early Childhood Programs  1 Unit  
Prerequisite: None  
Hours: 18 hours LEC  
This course examines Environment Rating Scales (Infant/Toddler, Early Childhood, School Age Programs and Family Child Care) as a tool for quality improvement in a variety of child development programs. Emphasis is given to theory and best practices in order to evaluate classrooms, materials, and interactions between adults and children.

ECE 494  
Topics in Early Childhood Education  .5-4 Units  
Prerequisite: None  
Enrollment Limitation: Students must verify paid registration to the conference.  
Course Transferable to CSU  
Hours: 9 hours LEC; 54 hours LAB  
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.

ECE 495  
Independent Studies in Early Childhood Education  1-3 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54 hours LEC; 54 hours LAB  
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

ECE 498  
Work Experience in Early Childhood Education  1-4 Units  
Prerequisite: None  
General Education: AA/AS Area III(b)  
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Early Childhood Education.  
Course Transferable to CSU  
Hours: 300 hours LAB  
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student's progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

ECE 499  
Experimental Offering in Early Childhood Education  .5-4 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 18 hours LEC; 54 hours LAB  
Experimental Offering in Early Childhood Education
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<th>Certificate/ Degree</th>
<th># of Units</th>
<th>ECE 312</th>
<th>ECE 314</th>
<th>ECE 320</th>
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<td>+ 6 unit specialization + 16 Gen. Ed.</td>
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</tbody>
</table>

* = Work experience placement related to specific age or group  
or = OPTION - See Certificate description
Economics combines with business, computer information science, journalism, human services, political science, social science, or history for an excellent background in any career field.

Program Description
Economic studies analyze 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 Opportunities
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 Opportunities 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

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

ECONOMICS (ECON)

ECON 100
Introduction to Economics
3 Units
Prerequisite: None
General Education: AA/AS Area V(b)
Hours: 54 hours LEC
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.

ECON 299
Experimental Offering in Economics
.5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

ECON 302
Principles of Macroeconomics
3 Units
Prerequisite: MATH 100; or MATH 102; or one year of High School Elementary Algebra with a grade of C or better; or equivalent skills as determined through the assessment process.
Advisory: MATH 120 or MATH 125 with a grade of “C” or better; or one full year of High School Algebra II with grades of “C” or better in each semester; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course 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: basic economic analysis, demand, supply, and equilibrium in a market; macroeconomic sectors, goals, and problems (unemployment, inflation, business cycle, and government budget deficit); the economy’s output, income, and price level; aggregate demand, aggregate supply, and equilibrium; and macroeconomic policies (fiscal and monetary). Time permitting, related topics such as international trade, international finance, and economic growth may also be discussed. Course work includes doing arithmetic problems, solving algebraic equations, and graphing straight and curvilinear lines.
ECON 304  
Principles of Microeconomics  
3 Units  
Prerequisite: MATH 100; or MATH 102; or one year of High School Elementary Algebra with a grade of C or better; or equivalent skills as determined through the assessment process.  
Advisory: MATH 120 or MATH 125 with a grade of “C” or better; or one full year of High School Algebra II with grades of “C” or better in each semester; or equivalent skills demonstrated through the assessment process.  
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4B  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is a graphical and functional analysis of the units (sectors) making up the economy. The focus is on the sectors’ choices and interactions, microeconomic goals (efficiency and equity), problems, and solutions. Major topics include basic principles of economics; basic economic analyses; demand, supply, and equilibrium in a market; markets and applications; costs and production; product and resources markets; and microeconomic problems (externalities, public goods, and income inequality). Time permitting, related topics such as international trade and health economics may also be discussed. Course work includes doing arithmetic problems, solving algebraic equations, and graphing straight and curvilinear lines.

ECON 306  
Environmental Economics  
3 Units  
Prerequisite: None  
Advisory: MATH 120 or MATH 125 with a grade of “C” or better; or one full year of High School Algebra II with grades of “C” or better in each semester; or equivalent skills demonstrated through the assessment process.  
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4B  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course focuses on the application of economic principles to help understand and manage the relationship between humans and the environment. The central theme is that there are competing demands for our limited natural resources, including the waste assimilation capacity of the environment, necessitating that difficult choices be made regarding how those resources are used. The course illustrates how resources are allocated in a market economy, potential problems from a social perspective with that allocation, and alternative solutions for reallocating resources to achieve more socially desirable outcomes. Issues such as efficiency and externality, benefit-cost analysis, and alternative policy instruments for pollution control are examined. Topics related to global warming, California water resources, and other current environmental policy issues will be discussed as time permits.

ECON 320  
Concepts in Personal Finance  
3 Units  
Same As: BUS 320  
Prerequisite: None  
Advisory: BUS 105  
General Education: AA/AS Area V(b)  
Course Transferable to CSU  
Hours: 54 hours LEC  
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. This course is the same as BUS 320, and only one may be taken for credit.

ECON 495  
Independent Studies in Economics  
1-3 Units  
Prerequisite: None  
Course Transferable to CSU  
See UC Limitations & Counselor  
Hours: 54 hours LEC; 54 hours LAB  
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

ECON 499  
Experimental Offering in Economics  
.5-4 Units  
Prerequisite: None  
Course Transferable to CSU  
See UC Limitations & Counselor  
Hours: 54 hours LEC; 54 hours LAB
DEGREE
A.A.-T — Elementary Teacher Education for Transfer
A.A. — Liberal Studies for Elementary Education

Program Description
This major is designed for students who wish to be teachers in public and private elementary schools. Further education at the university level will be required to fulfill all requirements for a teaching credential authorizing service in California public schools.

Career Opportunities
Teacher, primary grades
Teacher, intermediate grades
Instructional / Teaching Assistant (Elementary/Secondary)

Classes beyond the associate degree may be required to fulfill some Career Opportunities or for preparation for transfer to a university program.

Highlights
This major is especially designed for students who plan to transfer into California State University, Sacramento’s Teacher Preparation Program. This program provides all of the lower division courses necessary to gain admission to the university and the Elementary Teacher Credential Program.

Other CSUS Requirements:
- Foreign Language: For graduation from CSUS, students must fulfill the Foreign Language requirement. For other exemptions, see coordinator or a counselor.
- Grade point average must be 2.67 in transferable baccalaureate courses.
- The Writing Proficiency Exam (WPE) should be taken at CSUS shortly after completing Critical Thinking (ENGWR 302).
- The Intermediate Algebra Diagnostic exam should be taken shortly after completing Intermediate Algebra (MATH 125).
- It is recommended that the CBEST be taken anytime after taking ENGWR 300, ENGWR 302, and MATH 310.
- Students should accumulate a portfolio of their course work, obtain a letter of recommendation from their field experience cooperating teacher, and check with their counselor for other CSUS application and admission requirements.

Other Associate in Arts degree requirements:
- Kinesiology - any activity course
- Complete 60 units
- Students must meet the Reading Competency requirement through either assessment, a class, or a college-level reading examination.

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.A.-T — Elementary Teacher Education for Transfer
Code #1984

Note to Transfer Students:
The Elementary Teacher Education for Transfer A.A.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

REQUIRED PROGRAM

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<thead>
<tr>
<th>REQUIRED PROGRAM</th>
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<tr>
<td>ECE 350 Introduction to Elementary Teaching with Field Experience</td>
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</tr>
<tr>
<td>GEOL 305* Earth Science</td>
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<td>GEOL 306* Earth Science Laboratory</td>
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<td>COMM 301* Introduction to Public Speaking</td>
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<td>ENGWR 300* College Composition</td>
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<td>BIOL 310* General Biology</td>
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<td>MATH 310* Mathematical Discovery</td>
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<td>HIST 307 World History to 1865</td>
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<td>ENGWR 301* College Composition and Literature</td>
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<tr>
<td>GECO 320* World Regional Geography</td>
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<td>POLS 301* Introduction to Government - United States</td>
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<td>HIST 312* History of the United States (to 1865)</td>
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<tr>
<td>ECE 312* Child Development</td>
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<tr>
<td>PHYS 310* Conceptual Physics</td>
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<tr>
<td>COMM 311* Argumentation and Debate (3)</td>
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<tr>
<td>or COMM 315* Persuasion (3)</td>
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<tr>
<td>or ENGWR 302* Advanced Composition and Critical Thinking (3)</td>
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<tr>
<td>or PHIL 328* Critical Reasoning and Composition (3)</td>
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<tr>
<td>ARTH 300* Introduction to Art (3)</td>
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<tr>
<td>or MUFHL 300* Introduction to Music (3)</td>
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<tr>
<td>or TA 300* Introduction to the Theatre (3)</td>
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<td>TOTAL UNITS REQUIRED</td>
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<tr>
<td>DEGREE TOTAL (INCLUDING GE)</td>
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</tr>
</tbody>
</table>

* Major courses which also fulfill a transfer General Education (GE) requirement (“double-counting”). Please note that there are limitations on double-counting - consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

(continued on next page)
A.A.-T — Elementary Teacher
Education for Transfer continued

Associate in Arts in Elementary Teacher Education
for Transfer Degree
The Associate in Arts in Elementary Teacher Education for Transfer (A.A.-T) degree may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.

DEGREE:
A.A. — Liberal Studies for Elementary Education
CODE #1523

This major is designed for students who wish to be teachers in public and private elementary schools. Further education at the university level will be required to fulfill all requirements for a teaching credential authorizing service in California public schools.

REQUIRED PROGRAM .......................................................... Units
ENGWR 300 College Composition ........................................ 3
COMM 361 The Communication Experience .......................... 3
ENGED 305 Structure of English .......................................... 3
ENGW 302 Advanced Composition and Critical Thinking ............ 3
MATH 310 Mathematical Discovery ....................................... 3
BIOL 307 Biology of Organisms .......................................... 4
GEOL 305 Earth Science ................................................... 3
GEOL 306 Earth Science Laboratory ..................................... 1
HIST 312 History of the United States (to 1865) ..................... 3
ECON 302 Principles of Macroeconomics .............................. 3
POLS 301 Introduction to Government: United States .............. 3
HIST 307 History of World Civilizations to 1500 .................... 3
HIST 308 History of World Civilizations, 1500 to Present ........... 3
ENGED 320 Service Learning: Tutoring Elementary Students in Reading ......................................................... 3
ECE 350 Introduction to Elementary Teaching with Field Experience ....................................................... 3
ART 430 Art and Children .................................................. 3
ECE 312 Child Development .............................................. 3
SOC 321 Race, Ethnicity and Inequality in the United States (3)
or COMM 325 Intercultural Communication (3)
or ENGLT 336 Race and Ethnicity in Contemporary American Literature(3) .................................................... 3

TOTAL UNITS REQUIRED ........................................... 53

1 Students should contact a counselor about any new program requirements for CSU transfer.

Associate Degree
The Liberal Studies for Elementary Education Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF PROFICIENCY
Emergency Medical Technician

EMERGENCY MEDICAL TECHNICIAN
EMTs (previously called EMT-I or Basic) are the backbone of the Emergency Medical Services (EMS) system, helping to reduce injury severity and death at the scene of an accident or sudden illness and during transportation to a medical facility.

Program Description
Cosumnes River College’s Emergency Medical Technology course (EMT 100) is designed to provide the student with the skills and knowledge to apply for certification as an Emergency Medical Technician (EMT) in the State of California. EMT certification is the first step to starting a career working on an ambulance. EMT certification is also a pre-employment requirement for most professional fire departments. Students must fulfill all requirements of the EMT course including but not limited to: background clearance, physical examinations, immunization, Tb clearance and drug screening. Cosumnes River College’s EMT 100 students will gain actual off-campus clinical experience in ambulance units and in hospital emergency departments.

The Emergency Medical Technician Program is designed to fulfill the entrance requirements, (along with 1 year of work experience), for many paramedic programs. Paramedic programs will have other prerequisites such as anatomy and physiology and medical terminology. Students should check individual paramedic programs and college counselors for each college’s specific requirements.

State certification has also become an important first step in the career path of students pursuing professions as physicians, registered nurses, physician assistants, and other health professions, by offering a distinct advantage in patient assessment and critical interventional skills, as well as to obtaining valuable work experience in emergency medicine.

For more information please visit our program’s website: www.crcems.us

Career Opportunities
EMT(1); Emergency Room Technician; Fire Service

(With additional training): Rescue Worker
Paramedic Emergency Medical Dispatcher
Physicians Registered Nurses
Physician Assistants

Highlights
• Hands-on experience in administering proper emergency medical care
• Preparation for the EMT state certification test (NREMT)
• Recertification for EMT state certification
• First step in pursuing paramedic license
• Hospital emergency room and ambulance clinical time

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

CERTIFICATE OF PROFICIENCY
Emergency Medical Technician
CODE # 1508

The CRC EMT Program Certificate is NOT required for California state certification as an EMT (California currently certifies EMTs and does not license them). Students seeking to become a state certified EMT should take the EMT 100 course. The Emergency Medical Technician Certificate Program is designed to fulfill entrance requirements, along with work experience, for many paramedic programs in the state including at American River College. The individual courses in the Emergency Medical Technician Certificate Program are the prerequisite requirements for paramedic schools and not State of California Certification. Students should be advised that some more intensive paramedic programs around the country may require more advanced human anatomy courses such as BIOL 430 and BIOL 431. The EMT 100 course fulfills the requirements for State EMT certification (NREMT) testing.

REQUIRED PROGRAMS .................................................. Units
AH  110  Medical Language for Health-Care Providers............. 3
BIOL 102  Essentials of Human Anatomy and Physiology........ 4
EMT 100  Basic Emergency Medical Care............................ 7
TOTAL UNITS REQUIRED .................................................. 14
Emergency Medical Services

EMERGENCY MEDICAL TECHNOLOGY (EMT)

EMT 100
Emergency Medical Technician 7 Units
Prerequisite: CPR certification (BLS for the Healthcare Provider from the American Heart Association or CPR for the Professional Rescuer from the American Red Cross) All cards must be current.
Advisory: AH 110 and BIOL 102
Enrollment Limitation: Not open to students with a current EMT - Basic certificate.
Hours: 81 hours LEC; 135 hours LAB
This course provides instruction to the level of Emergency Medical Technician (Previously called EMT Basic or EMT-I). This course has additional financial costs that are required for clinical components. Topics include skills necessary to provide emergency medical care at a basic life support level with a fire, ambulance, or other specialized service. Cosumnes River College’s Emergency Medical Technology 100 course is the primary step to provide the student with the skills and knowledge to apply for certification as an Emergency Medical Technician and is approved by the Sacramento County Health Department, Division of Emergency Medical Services, which is the certifying agency for Sacramento County by the State of California. This certification is mandatory for all personnel who wish to pursue a career working on an ambulance. EMT certification is also a preemployment requirement for most paid fire departments. Together with varying levels of actual on-the-job experience, it is required for admission to paramedic training programs throughout the state and country. EMT students will gain actual clinical experience by spending time off-campus in operating ambulance units and in emergency departments of hospitals. Students will be required to complete background checks/drug screens, and have uniforms, and liability insurance, verify immunizations, Tb clearance and other requirements for the clinical component of this course. The course requires students to work on an ambulance in the clinical component. Students may not have a beard or any facial hair below the lip to be compliant with OSHA regulations. This course is conducted in compliance with the California Code of Regulations. A final grade “B” or better is required for a course completion certification in this course. This is an intensive medical class that students should possess a strong background in anatomy and physiology as well as medical terminology. Students that do not possess both generally do not succeed in the course. It is STRONGLY recommended that students take a basic anatomy and physiology class as well as a medical terminology class prior to attempting this class. See Advisory. The EMT class has additional non-mandatory hours for quiz reviews and skills practice that students are strongly encouraged to attend.

EMT 102

Emergency Medical Care Refresher 1.5 Units
Prerequisite: Current certification as an Emergency Medical Technician (I) or Basic.
Hours: 23 hours LEC; 12 hours LAB
Description: This course provides continuing education and skills verification modules for current Emergency Medical Technicians (EMTs) certified at the Basic Life Support (BLS) level. It satisfies most of the refresher requirements of local, state and national Emergency Medical Services (EMS) certifying organizations. EMS related topics include airway management and ventilation, cardiac care and resuscitation, patient assessment, injury management, legal and ethical issues, vital signs monitoring and assisting with medication administration. This course is designed for currently California State certified EMT - Basic(I) and meets all state requirements for EMT (I) recertification by Sacramento Emergency Medical Services Agency. BLS (CPR) cards are not issued in the completion of this course. Students that have expired EMT (I) certification should contact the instructor prior to signing up for EMT 102. This course does not provide preparation for the National Registry of Emergency Medical Technicians (NREMT) entry or recertification exam.

EMT 298
Work Experience in Emergency Medical Technology 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Emergency Medical Technology.
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in associate degree level or certificate occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

EMT 299
Experimental Offering in Emergency Medical Technology .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB
This course is designed for currently California State certified EMT - Basic(I) and meets all state requirements for EMT (I) recertification by Sacramento Emergency Medical Services Agency. BLS (CPR) cards are not issued in the completion of this course. Students that have expired EMT (I) certification should contact the instructor prior to signing up for EMT 102. This course does not provide preparation for the National Registry of Emergency Medical Technicians (NREMT) entry or recertification exam.
Pre-Professional Transfer Opportunities

DEGREE
A.S.—Engineering

Program Description
Engineering involves the application of scientific and mathematical principles used in design and in the solution of practical technical problems. CRC’s program provides the foundation in mathematics, physics, and engineering necessary to transfer to a university and complete a Bachelor of Science degree in Engineering. However, because the lower division requirements of universities vary, the student should check the transfer university’s catalog to be sure he/she meets its specific requirements. See a CRC counselor for assistance.

Career Opportunities
Aerospace Engineer
Chemical Engineer
Computer Engineer
Architectural Engineer
Civil Engineer
Electrical Engineer
Mechanical Engineer, and other types of engineers

Most Career Opportunities require a B.S. degree.

Highlights
• Challenging and rewarding classes that transfer to four-year universities
• A Mathematics, Engineering and Science Achievement (MESA) program

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.S.—Engineering
CODE #1482

This degree is designed to meet common lower division requirements for a major in Engineering.

CIVIL/MECHANICAL ENGINEERING OPTION:
REQUIRED PROGRAM................................................. Units
CHEM 400 General Chemistry ........................................ 5
CISP 360 Introduction to Structured Programming........... 4¹
ENGR 400 Introduction to Electrical Circuits and Devices .... 3
ENGR 312 Engineering Graphics.................................. 3
ENGR 420 Statics .................................................. 3
ENGR 412 Properties of Materials................................. 3
MATH 400 Calculus I............................................... 5
MATH 401 Calculus II.............................................. 5
MATH 402 Calculus III............................................ 5
MATH 420 Differential Equations................................. 5
PHYS 411 Mechanics of Solids and Fluids.................... 4
PHYS 421 Electricity and Magnetism............................ 4
TOTAL UNITS REQUIRED......................................... 48

¹ Check specific university requirements before choosing a course.

Suggested Electives:
PHYS 431

Associate Degree
The Engineering - Civil/Mechanical Option Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

ELECTRICAL/COMPUTER ENGINEERING OPTION:
REQUIRED PROGRAM............................................... Units
CHEM 400 General Chemistry ........................................ 5
CISP 360 Introduction to Structured Programming........... 4¹
ENGR 400 Introduction to Electrical Circuits Devices ....... 3
MATH 400 Calculus I............................................... 5
MATH 401 Calculus II.............................................. 5
MATH 402 Calculus III............................................ 5
MATH 420 Differential Equations................................. 4
PHYS 411 Mechanics of Solids and Fluids.................... 4
PHYS 421 Electricity and Magnetism............................ 4
TOTAL UNITS REQUIRED......................................... 39

¹ Check specific university requirements before choosing a course.

Electives:
(May be required at some universities; check university requirements):
Introduction to Logic Design; Mathematics 410, Linear Algebra;

Associate Degree
The Engineering - Electrical/Computer Option Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
ENGR 300  
Introduction to Engineering  1 Unit  
Prerequisite: None  
Course Transferable to UC/CSU  
Hours: 18 hours LEC

This course will provide students with information to evaluate the engineering profession as a personal career choice. Students will explore the branches of engineering and the different types of work that engineers do. Participants will investigate personal characteristics which contribute to being happy and successful engineers, and will examine their own traits. They will learn what preparation is needed and strategies for successful completion. Course participants will appreciate the role of engineers in society and understand the responsibilities of engineers in their service to society.

ENGR 312  
Engineering Graphics  3 Units  
Prerequisite: None  
Advisory: Completion of MATH 110 or high school geometry with a grade of C or better; and MATH 120 with a grade of C or better.  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 72 hours LAB

Students will learn the graphical tools needed to develop and communicate engineering ideas. They will learn to represent objects in technical drawings (orthographic projection). Students will create drawings using computer aided drafting software (two-dimensional). They will solve civil engineering problems using grade, bearing, scales, topographical maps, and plan and profile views. Students will use three-dimensional solid modeling software to create models of mechanical objects from which they will make drawings. Students will learn the steps in engineering design, and will complete a design project which will culminate in detail and assembly drawings. This course is primarily for Mechanical and Civil Engineering majors.

ENGR 400  
Introduction to Electrical Circuits and Devices  3 Units  
Prerequisite: PHYS 421 with a grade of “C” or better  
Course Transferable to UC/CSU  
Hours: 54 hours LEC; 18 hours LAB

This course will provide engineering students with circuit analysis concepts and applications that will be of value in any engineering field as well as a solid foundation for electrical engineering and related majors. The course includes the analysis of circuits with resistors, inductors, capacitors, and independent and dependent voltage and current sources. Many analysis techniques will be applied to DC and AC circuits. Differential equations will be used to find the transient response of circuits. Power calculations will be performed on both DC and AC circuits, including an introduction to three-phase AC power. This course is required for most engineering Bachelors of Science degrees.

ENGR 420  
Statics  3 Units  
Prerequisite: MATH 401 and PHYS 411 with grades of “C” or better  
Course Transferable to UC/CSU  
Hours: 54 hours LEC

This course covers analysis of two and three dimensional force systems for bodies in static equilibrium. Vector and scalar analysis methods address forces acting on rigid bodies, trusses, frames, and machines. Students will calculate internal forces in members and will create shear and bending moment diagrams for beams. Friction problems will include slipping vs tipping. Students will learn methods to calculate centroids and moments of inertia for bodies that are combinations of simple geometric shapes. This course is required for most engineering majors.

ENGR 495  
Independent Studies in Engineering  1-3 Units  
Prerequisite: None  
Course Transferable to CSU  
See UC Limitations & Counselor

An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

ENGR 498  
Work Experience in Engineering  1-4 Units  
Prerequisite: None  
General Education: AA/AS Area III(b)  
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Engineering.  
Course Transferable to CSU  
Hours: 300 hours LAB

This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

ENGR 499  
Experimental Offering in Engineering  .5-4 Units  
Prerequisite: None  
Course Transferable to CSU  
See UC Limitations & Counselor  
Hours: 18 hours LEC; 54 hours LAB

This is an introductory course on the relationship of the internal structure of materials to their properties. Topics include crystalline structure, imperfections, phases and phase diagrams, steels and non-ferrous alloys, polymers, ceramics, semiconductors, and corrosion. Students will apply the concepts in laboratory activities and will use typical materials testing equipment and analysis techniques. This course is required for CRC’s A.S. Engineering, Civil/Mechanical Engineering option degree, and many university engineering B.S. degrees.
DEGREE
A.A.—English
A.A.-T — English for Transfer

Program Description
“Anyone who has read a great deal can imagine the new world that opened. Let me tell you something: from then until I left that prison, in every free moment I had, if I was not reading in the library, I was reading on my bunk. You couldn’t have gotten me out of books with a wedge… Up to then, I never had been so truly free in my life.” — Malcolm X

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 Opportunities
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 Opportunities 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

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www crc losrios edu/pslo

DEGREE
A.A.—English

CODE #1403

The English major 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, and for a baccalaureate major in English or related majors.

REQUIRED PROGRAM..................................................... Units
Core Requirements-eighteen (18) units:
ENGWR 300 College Composition ................................... 3
ENGWR 301 College Composition & Literature or
ENGWR 302 Adv Comp & Critical Thinking ................. 3
ENGLT 320 American Literature .................................. 3
ENGLT 321 American Literature .................................. 3
ENGLT 310 English Literature ...................................  3
ENGLT 311 English Literature ...................................  3

Electives - Six (6) units selected from the following: .......... 6
ENGED 305 Structure of English (3)
ENGED 320 Tutor Elem Students in Reading (3)
ENGWR 330 Writing for Publication (3) or
JOUR 340 Writing for Publication (3)
ENGWR 331 Writing for Publication (3)
ENGWR 400 Creative Writing (3)
ENGCW 410 Fiction Writing Workshop (3)
ENGCW 420 Poetry Writing Workshop (3)
ENGCW 430 Creative Non-Fiction Writing Workshop (3)
ENGCW 452 College Literary Magazine (4)
ENGLT 336 Race & Ethnicity in Contemp American Literature (3)
ENGLT 345 Mythologies of the World (3)
ENGLT 360 Women in Literature (3)
ENGLT 343 Contemporary Third World Literature (3)
ENGLT 340 World Literature (3)
ENGLT 341 World Literature (3)
ENGLT 370 Children and Literature (3)
ENGLT 330 African American Literature (3)
ENGLT 303 Introduction to the Short Story (3)
ENGLT 402 Intro to Shakespeare and Film (3)

TOTAL UNITS REQUIRED........................................... 24

Associate Degree
The English Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

See page 201-202 for CRC English Sequence
The Associate in Arts in English for Transfer Degree (AA-T) is designed to provide a seamless transfer pathway for students interested in pursuing at least one English degree option in the California State University (CSU) system. Students must complete the core curriculum and electives to meet a total of 60 transferable units with a minimum 2.0 GPA, which includes the CSU General Education Breadth or the Intersegmental General Education Transfer Curriculum (IGETC) pattern. Students must also earn a grade of C or better in all the courses for the major as described in the Required Program. Upon successful completion of the degree requirements, students will be guaranteed admission to the CSU system with junior status and will not have to repeat lower division coursework. Students are encouraged to meet with a counselor to develop their educational plans as degree options and general education requirements vary for each university.

### REQUIRED PROGRAM

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<th>Course</th>
<th>Units</th>
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<td>TA 300*</td>
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**Total Units Required:** 60

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**Note To Transfer Students:**

The Associate Degree for Transfer program is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. In addition, some CSU-GE Breadth or IGETC requirements can also be completed using courses required for this associate degree for transfer major (known as “double-counting”). Meeting with a counselor to determine the most appropriate course choices will facilitate efficient completion of your transfer requirements. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

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### ENGLISH - WRITING (ENGWR)

**ENGWR 41**

**Writing Skills**

**Prerequisite:** None

**Hours:** 72 hours LEC

This writing course, designed to prepare the student for ENGWR 51, 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, 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 multiple full-process paragraphs/essays. It may include a departmental proficiency test or portfolio assessment.

**ENGWR 42**

**Foundations of Reading and Writing Improvement**

**Same As:** ENGRD 19

**Prerequisite:** Enrollment in the course will be limited by skills of students in reading and writing as demonstrated through the assessment process.

**Hours:** 54 hours LEC

This course integrates and accelerates reading and writing at the basic skills level with a focus on learning to use language to learn. Course content, activities, and assignments integrate reading and writing for an academic purpose. Reading and writing are instructed and contextualized through a focus on a variety of fiction and nonfiction texts, and through the discussion of the meaning of a college education (including a focus on student services, academic programs, and campus events). Successful completion of this course will serve as a prerequisite for ENGRD 59/ENGWR 58 at Cosumnes River College. Placement in the course will be through the college assessment process; self-placement will not be allowed. This course is the same as ENGRD 19, and only one may be taken for credit.

**ENGWR 44**

**Basics of Sentence Structure**

**Prerequisite:** None

**Hours:** 27 hours LEC

This course offers training in grammar, sentence building, correct usage, and punctuation. This course is recommended for students who wish to review basic principles of standard English as preparation or reinforcement of developmental writing for ENGWR 101 or college composition for ENGWR 300. Graded on a credit/no credit basis.
ENGWR 45
Basics of Vocabulary  1.5 Units
Prerequisite: None
Hours: 27 hours LEC
This course is for vocabulary improvement, specializing in the study of prefixes and other word parts. The course is graded on a credit/no credit basis.

ENGWR 51
Developmental Writing  4 Units
Prerequisite: ENGWR 41 or equivalent skills demonstrated through the assessment process. Grade of “C” or better required to meet prerequisite.
Hours: 72 hours LEC
This writing course, designed to prepare students for ENGWR 101, 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 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. It may include a departmental final or portfolio assessment.

ENGWR 55
Fluency and Style in English Writing  1.5 Units
Prerequisite: ENGWR 44 or 51 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Hours: 27 hours LEC
This course offers further training in grammar, sentence building, correct usage, and punctuation. Students focus on developing fluency and style through sentence combining. Recommended for students who wish to continue to develop their understanding of standard English as preparation or reinforcement for ENGWR 101 or ENGWR 300. This course is graded on a credit/no credit basis.

ENGWR 58
Writing Development with Reading  4 Units
Same As: ENGRD 59
Prerequisite: ENGRD 19 or ENGWR 42 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Hours: 72 hours LEC
The focus of this course will be on writing and reading instruction as integrally related skills. Students will study and practice reading comprehension in the context of the writing process with the goal of accelerating the pathway to the English Reading and English Writing requirements. Students will develop critical thinking skills and the ability to write clear and correct sentences as they write a variety of focused, developed, organized paragraphs and essays. Students will write both full-process and in-class essays. This course may include a departmental final or portfolio assessment. Successful completion of this course will serve as a prerequisite for ENGWR 101 and ENGRD 110 only at Cosumnes River College. As enrollment into course will be based upon prerequisite, there will be no self-placement. This course is the same as ENGRD 59, and only one may be taken for credit.

ENGWR 99
English Summer Bridge Program  1.5 Units
Prerequisite: None
Hours: 20 hours LEC; 21 hours LAB
This is a writing and grammar course that is part lecture and part lab. Students will focus on reading and writing as integrally related skills, hone their reading and writing processes, and practice grammar and sentence formation—all to become more college ready. This course is recommended for students who wish to review basic principles of standard English and practice college-level writing for ENGWR 51, ENGWR 101 or ENGWR 300. The course is graded on a pass/no pass basis.

ENGWR 101
College Writing  4 Units
Prerequisite: ENGRD 59, ENGWR 51, or ENGWR 58 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Hours: 72 hours LEC
This writing course, designed to prepare the student for ENGWR 300, 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). The course may include a departmental final.

ENGWR 299
Experimental Offering in English - Writing  .5-4 Units
Prerequisite: None
Hours: 9 hours LEC

ENGWR 300
College Composition  3 Units
Prerequisite: ENGWR 101 or equivalent skills demonstrated through the assessment process. Grade of “C” or better required to meet prerequisite.
General Education: AA/AS Area II(a); CSU Area A2; IGETC Area 1A
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. (C-ID ENGL 100)

ENGWR 301
College Composition and Literature  3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area III(b); CSU Area A3; CSU Area C2; IGETC Area 1B; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
ENGWR 301 offers the study of literature, with an emphasis on analytical reading and writing. It covers principles of argument and analysis, such as reasoning inductively and deductively. Assigned readings may include novels, short stories, poems, plays, and literary criticism. Essays written for the course (6,000 words minimum) generalize from the texts to present carefully reasoned arguments. At least one essay includes citations from secondary sources, documented according to current MLA format. (C-ID ENGL 105; C-ID ENGL 120)

ENGWR 302
Advanced Composition and Critical Thinking  3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area III(b); CSU Area A3; IGETC Area 1B;
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is designed for students who have had ENGWR 300 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. (C-ID ENGL 105)
ENGWR 309
Documenting Research for College Composition  1 Unit
Prerequisite: ENGWR 101 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Advisory: LIBR 318
Course Transferable to UC/CSU
Hours: 18 hours LEC
This course provides a basic understanding of the principles and mechanics of documenting research while developing critical thinking skills by writing a researched argumentative essay that shows mastery of the Modern Language Association (MLA) documentation guidelines.

ENGWR 330
Writing for Publication  3 Units
Same As: JOUR 340
Prerequisite: ENGWR 300, ENGWR 480, HONOR 375, or JOUR 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This is an introductory course in writing nonfiction for publication. Emphasis will be on developing magazine articles that sell; finding ideas; analyzing magazines; writing query letters; researching and interviewing; organizing, writing and illustrating articles. Individual and class criticism of student work will be featured. This course is the same as JOUR 340, and only one may be taken for credit.

ENGWR 331
Writing for Publication  3 Units
Prerequisite: ENGWR 300 with a grade of “C” or better
Advisory: ENGWR 330
Course Transferable to CSU
Hours: 54 hours LEC
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 two times for credit, with the understanding that many universities and four-year colleges place a nine-unit limit on transfer credit from advanced composition courses.

ENGWR 480
Honors College Composition  3 Units
Same As: HONOR 375
Prerequisite: Eligibility for ENGWR 300 or equivalent skills demonstrated through the assessment process. Student must also be eligible for admission to the Honors Program.
Advisory: ENGRD 110; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area IIB; CSU Area A2; IGETC Area 1A
Enrollment Limitation: Eligibility for the Honors Program
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course offers the honors student a challenging course that will develop skills in critical thinking, reading, and writing. It asks students to critically analyze, compare, and evaluate various complex works. The course is designed to help students demonstrate, in both argumentative and expository prose, complex critical thinking, effective organization, precise diction, and sophisticated style; at least one of those essays requires research and appropriate MLA documentation. Essays written during the term will total at least 8,000 words. Throughout the course, fluency and correctness are emphasized. This course is not open to students who have successfully passed ENGWR 300 or ESLW 340. This course is the same as HONOR 375. This course, under either name, may be taken one time for credit.

ENGWR 495
Independent Studies in English - Writing  1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

ENGWR 499
Experimental Offering in English - Writing  .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB

ENGLISH - LITERATURE (ENGLT)

ENGLT 303
Introduction to the Short Story  3 Units
Prerequisite: ENGWR 101 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.
ENGLT 309
Book Length Literature for Group Discussion 1 Unit
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC

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.

ENGLT 310
English Literature 3 Units
Prerequisite: ENGWR 101 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

Study of significant works of major English authors from Beowulf through Samuel Johnson, with consideration of the most important aspects of English literary history. (C-ID ENGL 160)

ENGLT 311
English Literature 3 Units
Prerequisite: Eligibility for ENGWR 300 or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

Survey of significant works of major English authors from the beginning of Romanticism in the Eighteenth Century to the work of major authors in the Twentieth Century, with consideration of the important aspects of English literary history.

ENGLT 320
American Literature 3 Units
Prerequisite: Eligibility for ENGWR 300, or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course is a survey of the more representative works in American literature from the beginning through the Civil War.

ENGLT 321
American Literature 3 Units
Prerequisite: ENGWR 101 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

Students will survey the representative works in American Literature after the Civil War. (C-ID ENGL 135)

ENGLT 330
African American Literature 3 Units
Prerequisite: ENGWR 101 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

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.

ENGLT 336
Race and Ethnicity in Contemporary American Literature 3 Units
Prerequisite: ENGWR 101 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

This class will examine literature written in the United States during the last 50 years in which the issues of race and racism, ethnicity and ethnocentrism, and culture and assimilation predominate the thematic concerns. All genres will be examined, as well as writers from many of the ethnic groups in America, including African Americans, Mexican Americans, Native Americans, and Asian Americans.

ENGLT 340
World Literature 3 Units
Prerequisite: Eligibility for ENGWR 300
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

The 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.

ENGLT 341
World Literature 3 Units
Prerequisite: ENGWR 101 with a grade of “C” or better; or eligibility for ENGWR 300 as demonstrated through the assessment process.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course is a survey of significant masterpieces from mid-seventeenth to late-twentieth century literature.

ENGLT 343
Contemporary Third World Literature 3 Units
Prerequisite: Eligibility for ENGWR 300, or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

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.
ENGLT 345
Mythologies of the World 3 Units
Prerequisite: Eligibility for ENGWR 300
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course explores and examines several universal themes of human experience as found through a broad survey of actual myths gathered from around the world. Special emphasis is also placed on the relationships and the similarities of various mythologies. The course includes fairly intensive instruction of primary interpretative theories of mythological research and analysis. This course emphasizes 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, Judeo-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. The format of instruction will involve lecture, group discussion, and other activities.

ENGLT 360
Women in Literature 3 Units
Prerequisite: Eligibility for ENGWR 300.
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

ENGLT 370
Children and Literature 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C2
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed primarily for parents, prospective teachers, preschool 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 presenting and responding to literature, including storytelling and oral reading.

ENGLT 402
Introduction to Shakespeare and Film 3 Units
Prerequisite: ENGWR 101 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

ENGLT 495
Independent Studies in Literature 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

ENGLT 499
Experimental Offering in English - Literature .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB

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ENGLISH - CREATIVE WRITING (ENGCW)

ENGCW 400
Creative Writing 3 Units
Prerequisite: ENGWR 101 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area I(b); CSU Area C2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC
This course is designed to guide students in creative writing through experience in three genres: short story, poetry, and creative non-fiction. 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. (C-ID ENGL 200)
**ENGCW 410**

**Fiction Writing Workshop**  
3 Units  
Prerequisite: Eligibility for ENGWR 300.  
General Education: AA/AS Area I(b); CSU Area C2  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 54 hours LEC

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.

**ENGCW 420**

**Poetry Writing Workshop**  
3 Units  
Prerequisite: ENGWR 101 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.  
General Education: AA/AS Area I(b)  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 54 hours LEC

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.

**ENGCW 430**

**Creative Non-Fiction Writing Workshop**  
3 Units  
Prerequisite: ENGWR 101 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.  
General Education: AA/AS Area I(b)  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 54 hours LEC

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.

**ENGCW 452**

**College Literary Magazine**  
4 Units  
Prerequisite: None  
Advisory: ENGWR 101; or equivalent skills demonstrated through the assessment process.  
Course Transferable to CSU  
Hours: 54 hours LEC; 54 hours LAB

This course provides instruction in techniques and experience in writing, editing, and instructing the college literary magazine. Students will write, select, and edit manuscripts in the genres of poetry, short fiction, and creative non-fiction. They will also assist in converting accepted manuscripts onto computer discs and in promoting the college literary magazine through various fund raising and advertising activities. Access is provided to computers, laser printer, and other production equipment. A campus literary reading will be presented.

**ENGCW 480**

**Honors Seminar: Creative Writing and Culture**  
3 Units  
Prerequisite: None  
General Education: AA/AS Area I; CSU Area C2  
Course Transferable to CSU  
See UC Limitations & Counselor  
Hours: 54 hours LEC

This course is an honors seminar for students who wish to write fiction and to do so with an awareness of fiction’s role in culture. Students will study the relationship between cultural events and literary conventions: connections, for example, between World War II and Hemingway’s concise sentences, the birth of jazz and the language of the beatniks, Existentialism and Ralph Ellison’s view of character, or the systematic repression of Native American languages and Joy Harjo’s fluid syntax. While students become familiar with the history and cultural place of fiction, they will be writing and analyzing fiction of their own. Students will be encouraged both to write from instinct and to begin deliberately cultivating a style, identifying personal influences, and situating their writing in relation to major cultural events. This course may be taken only once for credit. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website.

**ENGCW 495**

**Independent Studies in English - Creative Writing**  
1-3 Units  
Prerequisite: None  
Course Transferable to CSU  
See UC Limitations & Counselor  
Hours: 54 hours LEC; 54 hours LAB

An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

**ENGCW 499**

**Experimental Offering in English - Creative Writing**  
.5-4 Units  
Prerequisite: None  
Course Transferable to CSU  
See UC Limitations & Counselor  
Hours: 18 hours LEC; 54 hours LAB

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**ENGLISH - READING (ENGRD)**

**ENGRD 13**

**Reading Center: Basic Reading Skills**  
.5-3 Units  
Prerequisite: None  
Hours: 162 hours LAB

Individualized instruction modules at all skill levels are 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. Reading modules may not be repeated for credit and are not substitutes for ENGRD 14, 15, 110, 310, 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. This course is graded on a pass/no pass basis.
ENGRD 14
Reading Skills 3 Units
Prerequisite: None
Advisory: Concurrent enrollment in ENGRD 19, ENGWR 44, and ENGLB 70.
Hours: 54 hours LEC
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. Students are encouraged to enroll in ENGLB 70 for access to individualized help in the Reading and Writing Center.

ENGRD 15
Basic Reading Skills 3 Units
Prerequisite: ENGRD 14 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Advisory: Concurrent enrollment in ENGLB 70.
Hours: 54 hours LEC
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. Students are encouraged to enroll in ENGLB 70 for access to individualized help in the Reading and Writing Center.

ENGRD 19
Foundations of Reading and Writing Improvement 3 Units
Same As: ENGWR 42
Prerequisite: Enrollment in the course will be limited by skills of students in reading and writing as demonstrated through the assessment process.
Hours: 54 hours LEC
This course integrates and accelerates reading and writing at the basic skills level with a focus on learning to use language to learn. Course content, activities, and assignments integrate reading and writing for an academic purpose. Reading and writing are instructed and contextualized through a focus on a variety of fiction and non-fiction texts, and through the discussion of the meaning of a college education (including a focus on student services, academic programs, and campus events). Successful completion of this course will serve as a prerequisite for ENGRD 59/ENGWR 58 at Cosumnes River College. Placement in the course will be through the college assessment process; self-placement will not be allowed. This course is the same as ENGWR 42, and only one may be taken for credit. See “Cross-Listed Courses” in the catalog.

ENGRD 299
Experimental Offering in English - Reading .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

ENGRD 310
Critical Reading as Critical Thinking 3 Units
Prerequisite: ENGRD 110 or ESLR 320 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Advisory: ENGRD 15, ENGRD 59, and ENGWR 58 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Hours: 54 hours LEC
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. Students are encouraged to enroll in ENGLB 70 for access to individualized help in the Reading and Writing Center.
ENGRD 312
Academic Textbook Reading 3 Units
Prerequisite: ENGRD 110 and ESLR 320 with grades of “C” or better; or equivalent skills demonstrated through the assessment process.
Advisory: ENGLB 70, ENGWR 101, or ESLW 320
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed to refine students’ 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. Students are encouraged to enroll in ENGLB 70 for access to individualized help in the Reading and Writing Center.

ENGRD 495
Independent Studies in English - Reading 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

ENGRD 499
Experimental Offering in English - Reading .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB

ENGLISH - EDUCATION (ENGED)

ENGRD 305
Structure of English 3 Units
Prerequisite: ENGRD 110 with a grade of “C” or better
General Education: AA/AS Area II(a)
Course Transferable to CSU
Hours: 54 hours LEC
Designed for prospective teachers or those entering professions requiring strong written language skills, this course affords students the opportunity to study the history of English, traditional and transformational grammars, linguistics, standard usage, phonology, and orthography. Students will examine the development and structure of the English language, language acquisition, and the cultural and linguistic diversity represented by the students in the California public school system. They will also apply grammatical concepts as they meet the 2,000 word writing requirement.

ENGRD 320
Service Learning: Tutoring Elementary Students in Reading 3 Units
Prerequisite: None
General Education: AA/AS Area III(b); CSU Area E1
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This class offers students an opportunity to learn and practice basic methods of tutoring elementary children in reading. Students will meet on campus for the first part of the semester to be trained, and then will be assigned to a nearby elementary school where they will have in-depth practice at tutoring elementary children. This course, which provides an early field experience for students interested in elementary education, may be taken once for credit. Prior to beginning work in the schools, students may be required to be fingerprinted and pass a TB test.

ENGRD 495
Independent Studies in English - Education 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

ENGRD 499
Experimental Offering in English - Education .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB

ENGLISH - LABORATORY (ENGLB)

ENGLB 70
Writing Center I .5-1 Units
Prerequisite: None
Hours: 54 hours LAB
This laboratory course provides assistance in writing skills to students in all subject areas. Students may enter the course at any time during the first 9 weeks of the semester and earn either .5 or 1 unit. This course is graded on a credit/no credit basis. ENGLB 70 is recommended for students who are encountering difficulties in writing, spelling, sentence structure, paragraph or essay structure, and who would benefit from individual tutor/instructor assistance.

ENGLB 72
Writing Center II .5-1 Units
Prerequisite: None
Advisory: ENGRD 19, ENGWR 42, or ESLW 40; or equivalent skills demonstrated through the assessment process.
Hours: 54 hours LAB
Writing Center II is an independent study course designed to provide one-on-one assistant for students who experience significant difficulty in writing. The course is particularly recommended for students who test into ENGWR 42/ENGRD 19, but may be taken by any student in any discipline needing significant assistance in writing. Students may earn .5 to 1 unit of credit and the course may be added until the end of the 9th week of the regular semester.
ENGLB 73
Writing Center III
.5-1 Units
Prerequisite: None
Advisory: ENGRD 59, ENGWR 58, or ESLW 50; or equivalent skills demonstrated through the assessment process.
Hours: 54 hours LAB
Writing Center III is designed for students seeking to improve their writing skills with the express purpose of learning to write for success in college level courses. The course is particularly recommended for students who test into ENGWR 58/ENGRD 59 but may be taken by any student in any discipline seeking to improve in writing for an academic purpose. Students may earn .5 to 1 unit of credit and the course may be added until the end of the 9th week of the regular semester.

ENGLB 74
Writing Center IV
.5-1 Units
Prerequisite: None
Advisory: ENGRD 101, ENGWR 300, ESLW 310, or ESLW 320; or equivalent skills demonstrated through the assessment process.
Hours: 54 hours LAB
Writing Center IV is an independent study course which provides assistance in developing writing skills for students who may be enrolled in college level courses where writing demands are significant, but the student is not yet fully confident or consistent in his/her ability to write as demanded by specific discipline courses. This course is particularly recommended for students who are enrolled in or who test into ENGRD 101 or ENGWR 300. The course is open to any student in any course seeking to improve in writing for an academic purpose. Students may earn .5 to 1 unit of credit and the course may be added until the end of the 9th week of the regular semester.

ENGLB 75
Reading Center I
.5-1 Units
Prerequisite: None
Hours: 54 hours LAB
Reading is a fundamental skill required by all college students. Reading Center I is designed to meet that need by providing independent study in foundational reading skills following diagnostic assessment of the student’s reading abilities. The course is open to all students in all disciplines where reading demands are significant. Students may elect to take the course for .5 to 1.0 unit and the course may be added through the 9th week of the semester.

ENGLB 76
Reading Center II
.5-1 Units
Prerequisite: None
Advisory: ENGRD 19 or ESLR 40; or equivalent skills demonstrated through the assessment process.
Hours: 54 hours LAB
Reading Center II is an independent study course open to any student experiencing significant difficulty in reading as required for college. The course may especially be recommended for students enrolled in ENGRD 19/ENGWR 42 or ESLR 40, but may taken by any student in any discipline where reading demands are significant and where the student may not be prepared.

ENGLB 77
Reading Center III
.5-1 Units
Prerequisite: None
Advisory: ENGRD 59, ENGWR 58, or ESLR 50; or equivalent skills demonstrated through the assessment process.
Hours: 54 hours LAB
Reading Center independent practice at reading skills necessary for college success. Students meet with an instructor for determination of reading needs, and an agreed upon prescription is then developed. Student may elect to take the course for .5 unit or 1.0 unit. This lab class may be recommended by instructors of ENGRD 59/ENGWR 58 but is open to any student in any discipline wishing to improve her/his reading skills. The course be added until the end of the 9th week of the semester.

ENGLB 78
Reading Center IV
.5-1 Units
Prerequisite: None
Advisory: ENGRD 110, ENGRD 310, ENGRD 312, ESLR 310, or ESLR 320; or equivalent skills demonstrated through the assessment process.
Hours: 54 hours LAB
Critical reading is a skill needed for success in college and particularly in 300 level courses. Many students enter those courses who are not confident in their reading abilities or their abilities to read critically. Reading Center 4 provides practice in this area. This course is open to any student in any discipline where reading and research may be required. It may be recommended for students enrolled in ENGRD 310, ENGRD 312, or ENGRD 110. Students may enroll through the 9th week of the semester and may elect to take the course for .5 unit or 1.0 unit.

ENGLB 299
Experimental Offering in English - Laboratory
.5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB
CRC ENGLISH SEQUENCE LEADING TO COLLEGE LEVEL COURSES

COMPOSITION

ENGWR 42*  
(Same as ENGRD 19)  
Foundations of Reading and Writing Improvement  
(formerly ENGWR 41)

ENGWR 58*,1  
(Same as ENGRD 59)  
Writing Development with Reading  
(formerly ENGWR 51)

ENGWR 101*  
College Writing

READING

ENGRD 19*  
(Same as ENGWR 42)  
Foundations of Reading and Writing Improvement  
(formerly ENGRD 14)

ENGRD 59*,1  
(Same as ENGWR 58)  
Reading Development with Writing  
(formerly ENGRD 15)

ENGRD 110*  
Reading Strategies for College

ENGLB 70-74  
Writing Center  
Open access laboratory provides assistance to all students who are encountering difficulties in writing, sentence structure, paragraph, or essay development in any subject area.

ENGLB 75-78  
Reading Center  
Open access laboratory provides assistance to students who are encountering difficulties in reading and spelling in any subject area.

CRC ENGLISH SEQUENCE, COLLEGE LEVEL: DEGREE APPLICABLE & TRANSFER COURSES

ENGWR 300*  
College Composition  
Minimum requirement for the AA/AS degree and transfer to 4-year colleges & universities; fulfills CSU GE requirement A.2; fulfills IGETC Area 1A

ENGRD 200*  
Reading the American Cultural Experience  
Meets the AA/AS graduation competency requirement, if needed

ENGRD 310*  
Critical Reading and Thinking  
Meets the AA/AS graduation competency requirement, if needed and fulfills CSU General Education Breadth requirement: A.3 Critical Thinking

ENGRD 312*  
Academic and Textbook Reading  
Meets the AA/AS graduation competency requirement, if needed and transfers as an elective to CSU

* Eligibility determined by the assessment process.
1 Completion of the cross-listed ENGRD 59/ENGWR 58 makes a student eligible for both ENGRD 110 and ENGWR 101.
CRC ENGLISH SEQUENCE—COLLEGE LEVEL: DEGREE APPLICABLE & TRANSFER COURSES

**COMPOSITION**

**ENGWR 300***
College Composition
Minimum requirement for the AA/AS degree and transfer to 4-year colleges & universities; fulfills CSU GE requirement A.2.; fulfills IGETC Area 1A

**ENGWR 301***
College Composition & Literature
Minimum requirement for the AA/AS degree and transfer to 4-year colleges & universities; fulfills CSU GE requirement A.3.; fulfills IGETC Area 1B

**ENGWR 302***
Advanced Composition & Critical Thinking
Minimum requirement for the AA/AS degree and transfer to 4-year colleges & universities; fulfills CSU GE requirement A.3.; fulfills IGETC Area 1B

**READING**

**ENGRD 200***
Reading the American Cultural Experience
Meets the AA/AS graduation competency requirement, if needed

**ENGRD 301***
Critical Reading and Thinking
Meets the AA/AS graduation competency requirement, if needed and fulfills CSU General Education Breadth requirement: A.3. Critical Thinking

**ENGRD 312***
Academic and Textbook Reading
Meets the AA/AS graduation competency requirement, if needed and transfers as an elective to CSU

<table>
<thead>
<tr>
<th>SUMMARY TABLE</th>
<th>ALL DEGREE APPLICABLE ENGLISH COURSES: TRANSFER STATUS</th>
</tr>
</thead>
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<td>CSU and UC Transferable</td>
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<td>English Writing Courses</td>
<td>ENGWR: 300, 301, 302, 480; HONOR 375</td>
</tr>
<tr>
<td>Creative Writing Courses</td>
<td>ENGCW: 400, 410, 420, 430</td>
</tr>
<tr>
<td>English Literature Courses</td>
<td>ENGLT: 303, 310, 311, 320, 321, 330, 336, 340, 341, 343, 345, 360, 402</td>
</tr>
<tr>
<td>English – Education Courses</td>
<td>ENGED: 305, 320, 495, 499</td>
</tr>
<tr>
<td>English Reading Courses</td>
<td>ENGRD: 310, 312, 495, 499</td>
</tr>
</tbody>
</table>

NOTE: Many of the English courses in this table also meet a General Education requirement (CSU GE Breadth and/or ITETC). Check the course description of each course for more detail.

* Eligibility determined by the assessment process.
1 Completion of ENGWR 300 qualifies students to take this course.
CERTIFICATES OF PROFICIENCY

ESL—Listening and Speaking for Academic and Workforce Preparation
ESL—Listening and Speaking for College Success
ESL—Reading for Academic and Workforce Preparation
ESL—Reading for College Success
ESL—Writing for Academic and Workforce Preparation
ESL—Writing for College Success

Program Description
CRC offers a comprehensive ESL program with courses in grammar, listening/speaking, pronunciation, reading, and writing designed to provide the English language learner with the command of the English language necessary to pursue both transfer and vocational courses and enter the workforce. Students can enter with virtually no knowledge of English and progress to an extremely proficient level.

Please review the “English as a Second Language Course Ladder” on page 189 with a counselor to determine a course taking pattern.

Career Opportunities
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 designed to facilitate the transition to American life and college culture for international students.

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an Associate’s degree in this major may be different from the requirements needed for the Bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

CERTIFICATE OF PROFICIENCY

ESL Listening and Speaking for Academic and Workforce Preparation
CODE #1951

This certificate of proficiency recognizes English language learners who have successfully completed coursework in ESL Listening and Speaking from the novice to low intermediate level.

REQUIRED PROGRAM........................................................................... Units
ESLL 20 Novice Listening and Speaking............................................ 4
ESLL 30 Novice-High Listening and Speaking................................. 4
ESLL 40 Intermediate-Low Listening and Speaking...................... 4
TOTAL UNITS REQUIRED................................................................... 12

CERTIFICATE OF PROFICIENCY

ESL Listening and Speaking for College Success
CODE #1952

This certificate of proficiency recognizes English language learners who have successfully completed coursework in ESL Listening and Speaking from the intermediate-mid to advanced-low level.

REQUIRED PROGRAM........................................................................... Units
ESLL 50 Intermediate-Mid Listening and Speaking....................... 4
ESLL 310 Intermediate-High Listening and Speaking................... 4
ESLL 320 Advanced-Low Listening and Speaking....................... 4
TOTAL UNITS REQUIRED................................................................... 12

CERTIFICATE OF PROFICIENCY

ESL Reading for Academic and Workforce Preparation
CODE #1953

This certificate of proficiency recognizes English language learners who have successfully completed coursework in ESL Reading from the novice to low intermediate level.

REQUIRED PROGRAM........................................................................... Units
ESLR 20 Novice Reading................................................................. 4
ESLR 30 Novice-High Reading...................................................... 4
ESLR 40 Intermediate-Low Reading............................................ 4
TOTAL UNITS REQUIRED................................................................... 12

CERTIFICATE OF PROFICIENCY

ESL Reading for College Success
CODE #1954

This certificate of proficiency recognizes English language learners who have successfully completed coursework in ESL Reading from the intermediate-mid to advanced-low level.

REQUIRED PROGRAM........................................................................... Units
ESLR 50 Intermediate-Mid Reading................................................. 4
ESLR 310 Intermediate-High Reading.......................................... 4
ESLR 320 Advanced-Low Reading............................................. 4
TOTAL UNITS REQUIRED................................................................... 12

See page 207 for “English as a Second Language Course Ladder”
CERTIFICATE OF PROFICIENCY
E	S	L Writing for Academic and Workforce Preparation
CODE #1955
This certificate of proficiency recognizes English language learners who have successfully completed coursework in ESL Writing from the novice to low intermediate level.

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLW 20</td>
<td>4</td>
</tr>
<tr>
<td>ESLW 30</td>
<td>4</td>
</tr>
<tr>
<td>ESLW 40</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL UNITS REQUIRED</td>
<td>12</td>
</tr>
</tbody>
</table>

CERTIFICATE OF PROFICIENCY
E	S	L Writing for College Success
CODE #1956
This certificate of proficiency recognizes English language learners who have successfully completed coursework in ESL Writing from the intermediate-mid to advanced-low level.

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESLW 50</td>
<td>4</td>
</tr>
<tr>
<td>ESLW 310</td>
<td>4</td>
</tr>
<tr>
<td>ESLW 320</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL UNITS REQUIRED</td>
<td>12</td>
</tr>
</tbody>
</table>

ESL - ENGLISH AS A SECOND LANGUAGE (ESL)

ESL 90
Language Skills Laboratory .5-1 Units
Prerequisite: None
Hours: 54 hours LAB
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 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. This course is graded on a credit/no credit basis.

ESL 299
Experimental Offering in English as a Second Language .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

ESL - GRAMMAR (ESLG)

ESLG 57
Intermediate-Mid English Grammar 3 Units
Prerequisite: None
Hours: 54 hours LEC
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 ESLW 50 or 310 who wish to reinforce their control of English grammar and sentence structure.

ESLG 299
Experimental Offering in English as a Second Language - Grammar .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

ESLG 310
Intermediate-High Grammar 4 Units
Prerequisite: ESLG 57 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU
Hours: 72 hours LEC
This course focuses on further practice of the forms, meanings, and usage of grammatical structures of English. Oral and written practice reinforces the structures studied. Students practice writing extensively both in and out of class.

ESLG 320
Advanced-Low Grammar 4 Units
Prerequisite: Eligibility is determined by the assessment process, or completion of ESLG 310 with a grade of “C” or better.
Course Transferable to CSU
Hours: 72 hours LEC
This course focuses on developing control of the forms and meaning of major structures used in writing with an emphasis on aligning clause structures and writing purposes. Students write extensively and apply editing strategies introduced in the course. Assignments emphasize grammar and syntax in the context of longer written work.
ESL - LISTENING (ESLL)

ESLL 20
Novice Listening and Speaking  4 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB
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.

ESLL 30
Novice-High Listening and Speaking  4 Units
Prerequisite: Completion of ESLL 20 with a grade of “C” or better; or placement through the assessment process.
Hours: 54 hours LEC; 54 hours LAB
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.

ESLL 40
Intermediate-Low Listening and Speaking  4 Units
Prerequisite: Completion of ESLL 30 with a grade of “C” or better; or placement through the assessment process.
Hours: 54 hours LEC; 54 hours LAB
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.

ESLL 50
Intermediate-Mid Listening and Speaking  4 Units
Prerequisite: Completion of ESLL 40 with a grade of “C” or better; or placement through the assessment process.
Hours: 54 hours LEC; 54 hours LAB
This is a course designed for non-native speakers who wish to develop their communication skills for the academic and/or workplace environment. Students will learn to understand and be understood in both familiar and unfamiliar situations. This course is designed to introduce students to academic listening and speaking activities. Students will continue to develop pronunciation skills and complex pronunciation strategies. Students will expand their abilities to communicate in both familiar and unfamiliar situations as they continue to refine their pronunciation skills.

ESL - PRONUNCIATION (ESLP)

ESLP 50
Intermediate-Mid Pronunciation  4 Units
Prerequisite: ESLL 40 and ESLW 40 with grades of “C” or better
Hours: 54 hours LEC; 54 hours LAB
This course is designed to help intermediate English language learners move toward more comprehensible speech. Students will have intensive work on recognizing and producing speech sounds including analysis of the contrasts between the phonemic inventory of the student’s home language and the phonemic inventory of “standard” American English. Patterns of English stress, rhythm, and intonation are reviewed and practiced. Emphasis is on neuromuscular development and use of the organs of speech.

ESLP 310
Intermediate-High Pronunciation  4 Units
Prerequisite: ESLP 50 and ESLW 50 with grades of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
This course is designed to further enhance intelligible speech in English language learners. In addition to review of the International Phonetic Alphabet and standard American speech sounds, students will receive intensive training in the phonology of English including common contractions, reductions, deletions, and the effects of specific phonetic environments. Participants record speech production exercises and receive personal analysis and suggestions for improvement. Students will be responsible for writing and presenting dialogs, skits, and brief other oral presentations.
## ESLP 320
**Advanced-Low Pronunciation**
4 Units
Prerequisite: ESLP 310 and ESLW 310 with grades of "C" or better
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB

In this course, students focus on refining English pronunciation skills with an emphasis on eliminating production errors in spontaneous spoken English. Students will review and expand their understanding of phonological principles. Skill mastery will be demonstrated through lengthy impromptu presentations on prepared or familiar topics.

## ESLR

### ESLR 20
**Novice Reading**
4 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB

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/Speaking core text. In addition, students will learn basic rules, phonetics and basic grammar necessary to read and write comprehensively.

### ESLR 30
**Novice-High Reading**
4 Units
Prerequisite: Completion of ESLR 20 with a grade of “C” or better; or placement through the assessment process.
Hours: 54 hours LEC; 54 hours LAB

This course focuses on reading words, phrases, and sentences in short texts. Students will learn more core vocabulary, literal comprehension, and grammar necessary to understand short readings.

### ESLR 40
**Intermediate-Low Reading**
4 Units
Prerequisite: Completion of ESLR 30 with a grade of “C” or better; or placement through the assessment process.
Hours: 54 hours LEC; 54 hours LAB

This course focuses on developing reading skills with an emphasis on building vocabulary, literal comprehension, and fluency. Students will discuss and write about readings.

### ESLR 50
**Intermediate-Mid Reading**
4 Units
Prerequisite: Completion of ESLR 40 with a grade of “C” or better; or placement through the assessment process.
Hours: 54 hours LEC; 54 hours LAB

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.

### ESLR 310
**Intermediate-High Reading**
4 Units
Prerequisite: Completion of ESLR 50 with a grade of “C” or better; or placement through the assessment process.
Course Transferable to CSU
Hours: 72 hours LEC

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.

### ESLR 320
**Advanced-Low Reading**
4 Units
Prerequisite: Completion of ESLR 310 with a grade of “C” or better; or placement through the assessment process.
Course Transferable to CSU
Hours: 72 hours LEC

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.

### ESLR 499
**Experimental Offering in English as a Second Language - Reading**
.5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB

## ESLW

### ESLW 20
**Novice Writing**
4 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB

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.

### ESLW 30
**Novice-High Writing**
4 Units
Prerequisite: ESLW 20 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Hours: 54 hours LEC; 54 hours LAB

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.

### ESLW 40
**Intermediate-Low Writing**
4 Units
Prerequisite: ESLW 30 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Hours: 54 hours LEC; 54 hours LAB

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.
ESLW 40
Intermediate-Low Writing
4 Units
Prerequisite: Completion of ESLW 30 with a grade of “C” or better; or placement through the assessment process.
Hours: 54 hours LEC; 54 hours LAB
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.

ESLW 50
Intermediate-Mid Writing
4 Units
Prerequisite: Completion of ESLW 40 with a grade of “C” or better; or placement through the assessment process.
Hours: 54 hours LEC; 54 hours LAB
In this course students will learn techniques essential to essay writing. They will continue to develop sentence structure in longer pieces of writing.

ESLW 310
Intermediate-High Writing
4 Units
Prerequisite: ESLW 50 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 72 hours LEC
In this course students will continue to develop their writing skills through the writing process to create focused, fully developed and well-organized essays. The course focuses on writing for different purposes, sentence variety and emerging mastery of mechanics in the context of essays. Essays will incorporate outside sources as well as personal experience.

ESLW 320
Advanced-Low Writing
4 Units
Prerequisite: ESLW 310 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 72 hours LEC
In this course students will analyze and employ techniques throughout the writing process to produce a variety of well focused, fully developed and organized essays. The course also emphasizes competent sentence variety and mastering the mechanics of English in the context of the essay. Essays will incorporate outside sources as well as personal experience.

ESLW 340
Advanced Composition
4 Units
Prerequisite: ESLW 320 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area II(a); CSU Area A2
Course Transferable to UC/CSU
Hours: 72 hours LEC
This college composition course emphasizes reading analysis, writing, and critical thinking skills, while also addressing the specific language and cultural needs of non-native speakers. These skills are essential for successful completion of a two or four-year college program. Writing assignments include expository and argumentative prose based on analysis of a variety of assigned readings and original research including a fully documented research paper and in-class essays.

ESLW 499
Experimental Offering in English as a Second Language - Writing
.5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
English As A Second Language Course Ladder

Unless noted, all courses are four units, 3 hours Lecture and 3 hours Lab

* 4 Unit Lecture Only Sequence Courses
+ 3 Unit Lecture Only Course

(Course Level Reflects California Pathway Descriptors)
Family & Consumer Science

Program Description
CRC’s course offerings in Family & Consumer Science are designed primarily to provide knowledge and skills in the areas of human 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 Program for additional information.

Career Opportunities
Early Care and Education  
Instructional Assistant  
Child Psychology  

Some Career Opportunities may require more than two years of college study.

Highlights
• Day, weekend, and evening offerings
• Opportunities for transfer level instruction
• Professional and innovative staff who are leaders in the field

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo
DEGREE
A.A.—Film/Digital Cinema Production

Program Description
This Associate of Arts degree program is designed to provide skills in film production, digital cinema, and television through the preparation of projects for viewing on campus, cable TV, the Internet and new technologies. Given the expansion of new media distribution opportunities and the production convergence of High-Definition video and film, students will gain a broad exposure to visual storytelling in a professional environment, including dramatic narrative, documentary and experimental styles. This option can lead to entry-level jobs in the film industry, post-production, television, new media, business and industry. Some of the courses in this major also transfer to a four year university program. Please see a counselor for more information.

Career Opportunities
Camera Operator Cinematographer
Director of Photography Lighting Director
Computer Graphic Artist Non-Linear Video Editor
Audio Engineer Broadcast Technician
Gaffer Production Coordinator
Production Assistant Personal or Corporate Video
TV, Film, DVD or Internet Producer/Director

Highlights
• Practical experience working with school equipment on productions for viewing on campus, on cable TV and the Internet.
• Working in teams to build projects using a professional approach.
• State-of-the-art digital computer lab for graphics and non-linear editing, including Apple's Final Cut Pro, DV studio production, Adobe Photoshop, Adobe Illustrator, and Adobe After Effects.
• Internship opportunities working in local independent film-makers, post-production facilities and at local television stations.
• Industry guest speakers provide real world examples of how to be successful in the film industry.
• Some courses qualify students to become Apple Certified End Users by taking qualifying software exams in the department's Apple Authorized Training Center®.

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an Associate's degree in this major may be different from the requirements needed for the Bachelor's degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.A. Film/Digital Cinema Production
CODE #1969

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
RTVF 305 Film History (3).................................................. 3
or FMS 305 Film History (3)
RTVF 319 Digital Audio Production................................. 3
RTVF 330 Basic Film/Video Camera Techniques................. 3
RTVF 350 Intermediate Film / Digital Cinema Production..... 3
RTVF 360 Introduction to Motion Graphics: Adobe After Effects ............................... 3
RTVF 362 Digital Non-Linear Video Editing: Final Cut Pro.... 3
PHOTO 301 Beginning Photography................................. 3
or ARTPH 301 Beginning Photography (3)
or PHOTO 302 Beginning Digital Photography (3)
A minimum of 9 units from the following:............................ 9
RTVF 304 Introduction to Multimedia (3)
RTVF 351 Introduction to Motion Graphics for Film: Apple Motion (3)
RTVF 353 Color Correction for Film and Video: Apple Color (3)
RTVF 354 Audio Editing for Film & Video Post Production (3)
RTVF 363 Introduction to DVD Production: iDVD & DVD Studio Pro (3)
RTVF 365 Intermediate Film & Video Editing: Final Cut Pro (3)
RTVF 371 Hollywood TV and Film Studios:
A Behind the Scenes Experience (1)
RTVF 378 Acting for the Camera (3)
RTVF 498 Work Experience in Radio, Television and Film (1 - 4)
FMS 300 Introduction to Film Studies (3)
FMS 310 Basic Screenwriting (3)
FMS 320 Film Genre (3)
TOTAL UNITS REQUIRED:.............................................. 30

Associate Degree
The Film/Digital Cinema Production Associate in Arts (A.A.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
DEGREE
A.A.—Film and Media Studies

Program Description
Film and Media Studies is designed to develop critical thinking and screenwriting skills while fostering a humanistic and social scientific understanding of the media. Students combine hands-on courses in scriptwriting, 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. The production of digital film and broadcast television are taught through the Radio, Television and Film Production program.

Career Opportunities
Director, Entertainment Writer or Editor, Producer, Screenwriter, Script Supervisor, Story Editor

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

Highlights
• State-of-the-art 32-station computer lab for graphics and non-linear editing including Apple's Final Cut Pro, DVD Studio Pro, Adobe Photoshop, Illustrator, After Effects
• Hand-on courses in film and video production and editing
• Screening room with rear screen projector and advanced sound system

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.A. Film and Media Studies
CODE # 1551

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 300</td>
<td>Introduction to Film Studies</td>
<td>3</td>
</tr>
<tr>
<td>FMS 305</td>
<td>Film History</td>
<td>3</td>
</tr>
<tr>
<td>FMS 320</td>
<td>Film Genre</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 310</td>
<td>Mass Media and Society</td>
<td>3</td>
</tr>
<tr>
<td>or RTVF 300</td>
<td>Mass Media and Society</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 330</td>
<td>Basic Film/Video Camera Techniques</td>
<td>3</td>
</tr>
<tr>
<td>A minimum of three (3) units from the following:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>FMS 310</td>
<td>Basic Screenwriting</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 362</td>
<td>Digital Non-Linear Video Editing: Final Cut Pro</td>
<td>3</td>
</tr>
<tr>
<td>TA 323</td>
<td>From Stage to Screen, Production Design and Art Direction</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED 18

Suggested Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 488</td>
<td>Honors Seminar: Introduction to Critical Theory</td>
</tr>
<tr>
<td>RTVF 319</td>
<td>Digital Audio Production</td>
</tr>
<tr>
<td>TA 356</td>
<td>Acting for the Camera I</td>
</tr>
</tbody>
</table>

Associate Degree

The Film and Media Studies Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
# FILM AND MEDIA STUDIES (FMS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>General Education</th>
<th>Course Transferable</th>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMS 300</td>
<td>Introduction to Film Studies</td>
<td>3</td>
<td>None</td>
<td>AA/AS Area I; CSU Area C1; IGETC Area 3A</td>
<td>UC/CSU</td>
<td>54</td>
<td>This course offers an introduction to the film medium with emphasis on aesthetics, theory and methods of critical analysis. Students will examine film as an art form, as a medium for communicating ideas and as a social and cultural force.</td>
</tr>
<tr>
<td>FMS 305</td>
<td>Film History</td>
<td>3</td>
<td>None</td>
<td>AA/AS Area I; CSU Area C1; IGETC Area 3A</td>
<td>UC/CSU</td>
<td>54</td>
<td>This course is an introduction to the art of motion pictures, using lectures and films. Students will study the history and development of motion pictures and will view, evaluate, and critique landmarks in the art of movie making. This course is the same as RTVF 305 and only one may be taken for credit.</td>
</tr>
<tr>
<td>FMS 310</td>
<td>Basic Screenwriting</td>
<td>3</td>
<td>None</td>
<td>AA/AS Area I</td>
<td>UC</td>
<td>54</td>
<td>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.</td>
</tr>
<tr>
<td>FMS 320</td>
<td>Film Genre</td>
<td>3</td>
<td>None</td>
<td>AA/AS Area I; CSU Area C1; IGETC Area 3A</td>
<td>UC/CSU</td>
<td>54</td>
<td>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.</td>
</tr>
<tr>
<td>FMS 488</td>
<td>Honors Seminar: Introduction to Critical Theory</td>
<td>3</td>
<td>None</td>
<td>AA/AS Area I; CSU Area C2; IGETC Area 3B</td>
<td>UC/CSU</td>
<td>54</td>
<td>This course investigates questions of interpretation and representation in film, literature, media, and culture. Students examine contemporary critical and cultural theory, then apply these theories in analyzing a variety of texts from the Shakespearean play to the sciencefiction horror film. Theories introduced include, but are not limited to, semiotics, psychoanalysis, rhetorical criticism, gender theory, and postmodernism. Students intending to transfer into arts, film, literature, humanities, and cultural studies programs will find this course particularly useful in understanding the critical language of the university. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as HONOR 350, and only one may be taken for credit.</td>
</tr>
<tr>
<td>FMS 489</td>
<td>Honors Seminar: The Films of Alfred Hitchcock</td>
<td>3</td>
<td>None</td>
<td>AA/AS Area I</td>
<td>UC</td>
<td>54</td>
<td>This seminar studies the work of Alfred Hitchcock from the perspective of the key concepts in film theory. Students will investigate the films and criticism of one of the greatest and strangest directors, the self-styled master of suspense. This seminar takes a close reading of Hitchcock’s most important films and the most significant writing on the director’s work. For students interested in film, media, art, literature, and the humanities, the course examines Hitchcock’s visual style, thematic concerns, and directorial techniques, and introduces the major critical approaches to cinema studies. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as HONOR 352, and only one may be taken for credit.</td>
</tr>
<tr>
<td>FMS 495</td>
<td>Independent Studies in Film and Media Studies</td>
<td>1-3</td>
<td>None</td>
<td>UC</td>
<td>UC</td>
<td>UC</td>
<td>An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.</td>
</tr>
<tr>
<td>FMS 499</td>
<td>Experimental Offering in Film and Media Studies</td>
<td>.5-4</td>
<td>None</td>
<td>UC</td>
<td>UC</td>
<td>UC</td>
<td>An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.</td>
</tr>
</tbody>
</table>
DEGREE
A.A.—Finance

Program Description
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 Opportunities
Stockbroker
Insurance Representative
Tax Consultant
Financial Planner
Bank Employee
Entrepreneur
Government Service
Investment Counselor
Real Estate Sales
Retirement Specialist

Some Career Opportunities 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
• A lab with tutorial assistance

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.A.—Finance
CODE #1053

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 301</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 310</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 330</td>
<td>Managing Diversity in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSTEC 302</td>
<td>Computer-Keyboarding</td>
<td>2</td>
</tr>
<tr>
<td>CISC 310</td>
<td>Introduction to Computer Information Science (3)</td>
<td>2-4</td>
</tr>
<tr>
<td>ECON 302</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 100</td>
<td>Introduction to Economics</td>
<td>3</td>
</tr>
<tr>
<td>MKT 300</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>or MGMT 362</td>
<td>Techniques of Management</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 125</td>
<td>Federal and State Individual Taxation</td>
<td>4</td>
</tr>
<tr>
<td>BUS 320</td>
<td>Concepts in Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 320</td>
<td>Concepts in Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>A minimum of 3 units from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 498</td>
<td>Work Experience in Business (1-4)</td>
<td>3</td>
</tr>
<tr>
<td>MKT 310</td>
<td>Selling Professionally</td>
<td>3</td>
</tr>
<tr>
<td>or MKT 330</td>
<td>Internet Marketing</td>
<td>3</td>
</tr>
<tr>
<td>RE 300</td>
<td>California Real Estate Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED 36-38

Suggested Electives for concentration:
BUS 105, 170, 171, 210
ECON 304
HCD 132, 310, 340, 362
MGMT 372

Associate Degree
The Finance Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
DEGREE
A.A.—Fire Technology

CERTIFICATE OF ACHIEVEMENT
Fire Technology

Program Description
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 prepare and successfully apply for fire service positions.

Career Opportunities
Firefighter            Fire Inspector
Fire Investigator      Fire Supervisor
Fire Manager

Some Career Opportunities may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career opportunities 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
• Fire Technology work experience internships
  (Fire Technology 498 for on-the-job experience)

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate's degree in this major may be different from the requirements needed for the bachelor's degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

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 firefighting and fire suppression.

REQUIRED PROGRAM ................................................................ Units
FT 300 Fire Protection Organization........................................ 3
FT 301 Fire Prevention Technology........................................ 3
FT 302 Fire Protection Equipment and Systems ................. 3
FT 303 Building Construction for Fire Protection............. 3
FT 304 Fire Behavior and Combustion.............................. 3
EMT 100 Emergency Medical Technician............................ 7

A minimum of 15 units from the following:.................... 15
FT 110 Fire Apparatus (3)
FT 130 Fire Company Organization and Management (3)
FT 132 Fire Service Records and Reports (3)
FT 140 Related Codes and Ordinances (3)
FT 170 Fire Investigation (3)
FT 180 Rescue Practices (3)
FT 190 Fire Tactics and Strategy (3)
FT 320 Hazardous Materials (3)
FT 4981 Work Experience in Fire Technology (1-4)

TOTAL UNITS REQUIRED ............................................................................. 38 - 41

1 A current California EMT certificate will be accepted as satisfactory completion of the EMT 100 requirement.

2 Maximum of 3 units

Associate Degree
The Fire Technology Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF ACHIEVEMENT
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 300 Fire Protection Organization ........................................... 3
FT 301 Fire Prevention Technology .......................................... 3
FT 302 Fire Protection Equipment and Systems ....................... 3
FT 303 Building Construction for Fire Protection ..................... 3
FT 304 Fire Behavior and Combustion ..................................... 3
EMT 100 Basic Emergency Medical Care ................................ 7¹
A minimum of 15 units from the following: ................................ 15
FT 110 Fire Apparatus (3)
FT 130 Fire Company Organization and Management (3)
FT 132 Fire Service Records and Reports (3)
FT 140 Related Codes and Ordinances (3)
FT 170 Fire Investigation (3)
FT 180 Rescue Practices (3)
FT 190 Fire Tactics and Strategy (3)
FT 320 Hazardous Materials (3)
TOTAL UNITS REQUIRED.................................................. 37

¹ A current California EMT 1, EMT 1A, or EMT 1FS certificate will be accepted as satisfactory completion of the EMT 100 requirement.

FIRE TECHNOLOGY (FT)

FT 110 Fire Apparatus ......................................................... 3 Units
Prerequisite: None
Advisory: FT 130; or equivalent skills demonstrated through the assessment process; FT 300; or employment as a firefighter
Hours: 54 hours LEC
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.

FT 130 Fire Company Organization and Management ............ 3 Units
Prerequisite: None
Advisory: FT 300; or employment as a firefighter.
Hours: 54 hours LEC
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.

FT 132 Fire Service Records and Reports .............................. 3 Units
Prerequisite: None
Advisory: FT 130 or 300; or employment as a firefighter
Hours: 54 hours LEC
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.

FT 140 Related Codes and Ordinances ................................. 3 Units
Prerequisite: None
Advisory: FT 300; or employment as a firefighter.
Hours: 54 hours LEC
This course focuses on the familiarization and interpretation of national, state and local codes, ordinances and laws which influence the field of fire protection.

FT 170 Fire Investigation .................................................... 3 Units
Prerequisite: None
Advisory: FT 300; or employment as a firefighter.
Hours: 54 hours LEC
This course focuses on determining causes of fires (accidental, suspicious and incendiary), the types of fires, related laws, an introduction to arson and incendiarism, recognizing and preserving evidence, the interviewing of witnesses and suspects, arrest and detention procedures, court procedures and giving court testimony.

FT 180 Rescue Practices ..................................................... 3 Units
Prerequisite: None
Advisory: FT 300; or employment as a firefighter.
Hours: 54 hours LEC
This course focuses on rescue practices, in terms of 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.

FT 190 Fire Tactics and Strategy ........................................... 3 Units
Prerequisite: None
Advisory: FT 300, or employment as a firefighter.
Hours: 54 hours LEC
This course provides 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.

FT 210 Firefighter Internship Training Program .................... 8 Units
Prerequisite: FT 300 with a grade of “C” or better; Current EMT Certification and accreditation with Sacramento EMS agency. BLS for the Healthcare Provider from American Heart Association (or the equivalent HEED 320; or current American Red Cross CPR for Professional Rescuer). Current CPR card (last 2 years) Corequisite: FT 498
Enrollment Limitation: All students must be enrolled in FT 498 to sign up for FT 210.
Hours: 99 hours LEC, 135 hours LAB
This course provides the techniques and skills to work effectively and safely within the fire environment as well as the fire department. Topics include indoctrination into the fire service, general maintenance, apparatus and equipment operations, fire control, salvage, fire prevention and public education, fire and arson investigation, rapid intervention crew tactics, physical fitness/wellness, emergency care, and forcible entry. Students may be charged a lab fee for personal protective equipment (PPE) in the use of and maintenance of structural firefighter turnouts and equipment in this course. Students will also be responsible for purchasing other equipment, liability insurance and uniforms. This course is graded on a pass/no pass basis.
FT 295
Independent Studies in Fire Technology 1-3 Units
Prerequisite: None
Hours: 54 hours LEC; 36 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

FT 299
Experimental Offering in Fire Technology .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

FT 300
Fire Protection Organization 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course 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; an introduction to fire protection systems; and an introduction to fire strategy and tactics.

FT 301
Fire Prevention Technology 3 Units
Prerequisite: None
Advisory: FT 300
Course Transferable to CSU
Hours: 54 hours LEC
This course provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire protection bureau, use of fire codes, identification and correction of fire hazards, and the relationship of fire prevention with fire safety education in terms of detection and suppression systems.

FT 302
Fire Protection Equipment and Systems 3 Units
Prerequisite: None
Advisory: FT 300
Course Transferable to CSU
Hours: 54 hours LEC
This course 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, as well as portable fire extinguishers.

FT 303
Building Construction for Fire Protection 3 Units
Prerequisite: None
Advisory: FT 300
Course Transferable to CSU
Hours: 54 hours LEC
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.

FT 304
Fire Behavior and Combustion 3 Units
Prerequisite: None
Advisory: FT 300
Course Transferable to CSU
Hours: 54 hours LEC
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.

FT 320
Hazardous Materials 3 Units
Prerequisite: None
Advisory: FT 300, 301, 302, 303, and 304
Course Transferable to CSU
Hours: 54 hours LEC
This course provides 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.

FT 495
Independent Studies in Fire Technology 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 36 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

FT 498
Work Experience in Fire Technology 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Fire Technology.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

FT 499
Experimental Offering in Fire Technology .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
DEGREES
A.A.-T — Geography for Transfer
A.S. — Geography
A.S. — Environmental Studies and Sustainability

CERTIFICATE OF ACHIEVEMENT
Professional Applications of Geographic Information Systems (GIS)

Program Description
Geography is the science of place and space. Geographers study the relationships among geographic places, natural systems, society, cultural activities, and the interdependence of all these over space.

There are two main branches of geography: human geography and physical geography. Human geography is concerned with the spatial aspects of human existence—how people and their activities are distributed over space, how people use and perceive space, and how people interact with the physical environment. Physical geographers study the physical elements and spatial processes that make up and shape the environment, including energy, air, water, weather, climate, landforms, soils, animals, plants, etc. Many aspects of geography are studied and analyzed using a variety of spatial technologies such as Geographic Information Systems (GIS), Global Positioning Systems (GPS) and remotely-sensed imagery. These tools are becoming more and more commonplace throughout society.

Geographers also study the linkages between human activity and natural systems. Geographers were, in fact, among the first scientists to sound the alarm that human-induced changes to the environment were beginning to threaten the balance of life itself. Geographers today are active in the study of diverse topics, such as global warming, desertification, deforestation, loss of biodiversity, groundwater pollution, flooding, origin and diffusion of disease, and many more (please contact the program for additional information). Some Career Opportunities may require more than two years of college study.

Highlights
• Comprehensive course offerings as well as specialized training in Geographic Information Systems (GIS)
• Program’s students have won top awards at state, regional and national levels since 1999
• Field study courses to Yosemite, Pt. Reyes, and Monterey/Big Sur
• Internships available with regional governmental agencies
• Three courses fulfill the CRC and CSU multicultural requirement
• Day, evening, and online sections

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

Career Opportunities
Natural Resource Management
Environmental Conservation
Environmental Scientist/Analyst
International Development
Urban and Regional Planning
Tourism
Education (K-12 through University)
Cartographer
Climatologist
Park Ranger
Transportation Specialist
Real Estate Analyst
International Business
Research Scientist
Land Surveyor
Marketing Analyst
Remote Sensing Specialist
Research Geographer
GIS Analyst/Program Director

Field Study Classes at Cosumnes River College
Nature is often the best classroom!
Come learn outside in Cosumnes River College’s field study courses. These classes consist of short classroom sessions followed by extended trips to some of the most unique and beautiful environments in California, including Big Sur, Monterey Bay, Mt. Lassen, Point Reyes, Yosemite and more! These short-term classes are offered by several departments, including Biology, Geography, Geology and Photography. For more information about specific classes, consult the class schedule or contact each department.
DEGREE
A.A.-T  – Geography for Transfer
Code #1985

Note to Transfer Students:
The Geography for Transfer A.A.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

REQUIRED PROGRAM .......................................................... UNITS
GEOG 300* Physical Geography: Exploring Earth’s Environmental Systems ............................................. 3
GEOG 301* Physical Geography Laboratory .............................................................................. 1
GEOG 310* Human Geography: Exploring Earth’s Cultural Landscapes ............................................. 3

LIST A
A minimum of 6 units from the following: ............................................................................. 6
GEOG 306* Weather and Climate (3)
GEOG 320* World Regional Geography (3)
GEOG 322* Geography of California (3)
GEOG 331 Exploring Maps and Geographic Technologies (3)
GEOG 335 Introduction to Geographic Information

LIST B
A minimum of 6 units from the following: ............................................................................. 6
GEOG 302* Environmental Studies & Sustainability (3)
GEOG 305* Global Climate Change (3)
ANTH 310* Cultural Anthropology (3)
GEOL 300* Physical Geology (3)
POLS 310* Introduction to International Relations (3)
STAT 300* Introduction to Probability and Statistics (4)

TOTAL UNITS REQUIRED ............................................................................. 19

DEGREE TOTAL (INCLUDING GE) ............................................................................. 60

* Major courses which also fulfill a transfer General Education (GE) requirement (“double-counting”). Please note that there are limitations on double-counting — consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

Associate in Arts in Geography for Transfer Degree
The Associate in Arts in Geography for Transfer (A.A.-T) degree may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.

DEGREE
A.S. – Geography
CODE #1536

REQUIRED PROGRAM ............................................................................. Units
Fall or Spring semester:
GEOG 300 Physical Geography: Exploring Earth’s Environmental Systems ............................................. 3
Fall or Spring semester (best if concurrent with Geog 300):
GEOG 301 Physical Geography Laboratory .................................................................................... 1
Fall or Spring semester:
GEOG 310 Human Geography: Exploring Earth’s Cultural Landscapes ............................................. 3

Fall semester:
GEOG 331 Exploring Maps and Geographic Technologies ............................................. 3

Check with departments for scheduled offering:
PSYC 330 Introductory Statistics for the Behavioral Sciences (3)
or STAT 300 Introduction to Probability and Statistics (4) ............................................. 3-4

Check with departments for scheduled offering:
A minimum of 6 units from the following: ............................................................................. 6
ANTH 310 Cultural Anthropology (3)
BIOL 310 General Biology (4)
or BIOL 350 Environmental Biology (3)
or BIOL 307 Biology of Organisms (4)
ECON 304 Principles of Microeconomics (3)
or ECON 302 Principles of Macroeconomics (3)
GEOG 305 Global Climate Change (3)
GEOG 306 Weather and Climate (3)
GEOG 320 World Regional Geography (3)
GEOG 322 Geography of California (3)
GEOG 335 Introduction to Geographic Information Systems Applications (3)
GEOG 353 Introduction to the Global Positioning System (GPS) (1)
GEOG 390 Field Studies in Geography (0.5 - 4)
GEOG 481 Honors Seminars: Nature & Culture (3)
GEOG 482 Honors Seminar in Geography (1)
GEOL 300 Physical Geology (3)
GEOL 301 Physical Geology Laboratory (1)
GEOL 330 Introduction to Oceanography (3)
HIST 371 History of the Americas from the 19th Century Wars of Independence to the Present (3)
or HIST 370 History of the Americas through the 19th Century Wars of Independence (3)
or HIST 360 History of African Civilizations (3)
or HIST 308 History of World Civilizations, 1500 to Present (3)
or HIST 307 History of World Civilizations to 1500 (3)
HUM 320 Asian Humanities (3)
or HUM 332 American Humanities (3)
or HUM 324 Global Islam: Culture and Civilization (3)
PHIL 352 Introduction to World Religions (3)
POLS 310 Introduction to International Relations (3)
SOC 300 Introduction to Sociology (3)

TOTAL UNITS REQUIRED ............................................................................. 19-20

1 A minimum of 60 units is required for the A.S. degree which includes core courses, electives, and general education (GE) graduation requirements. Geography majors are encouraged to complete additional GE requirements from a list of suggested courses on file in the Geography Department and at the Counseling Center. Students should use PROJECT ASSIST (wwwassist.org) to research lower division major requirements at the transfer institution of their choice and also work with a counselor to determine the most appropriate transfer coursework.

2 A maximum of 2 units from GEOG 390 will be counted toward the degree requirement.

(continued on next page)

2014–2015 Cosumnes River College
A.S. – Geography continued

Associate Degree
The Geography Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

DEGREE
A.S. - Environmental Studies and Sustainability
CODE #1635

The Environmental Studies & Sustainability Program is an interdisciplinary, and multidisciplinary, course of study that presents a broad overview of ecological issues from a variety of perspectives in the natural, physical, and social sciences. The coursework examines the interplay between natural and social systems, and the ideological foundations of humankind's attitudes and behaviors with respect to their ever-changing environment. This program is designed to prepare students to research, analyze, and propose solutions to the myriad environmental challenges facing the world today.

The Environmental Studies & Sustainability Associate of Science degree is designed to correlate with the lower division courses required to transfer into an Environmental Studies Program at many four-year institutions as well as a broad education for transfer in related disciplines.

The disciplines of Environmental Studies and Geography are complementary fields, both focused on aspects of human-environment interaction. This complementarity is reflected in the many 4-year institutions that house combined Geography and Environmental Study programs. Students interested in double-majoring in these two closely-related disciplines, and/or simultaneously earning a Certificate in Geographic Information Systems, are encouraged to examine the required coursework and plan their program of study accordingly.

Students should use PROJECT ASSIST (www.assist.org) to research lower division major requirements at the transfer institution of their choice and should also work with the program adviser and a counselor to determine the appropriate transfer coursework.

Students interested in pursuing an Environmental Science major should consult with science faculty and counselors to tailor the specific coursework necessary to transfer to the 4-year institution of their choice.

Career Opportunities
Natural Resource Management; Forestry; Range Management; Wildlife Biology; Agriculture; Soil and Water Conservation; Land Use Planning; Waste Management; Environmental Education; Environmental Policy And Planning; Environmental Law; Environmental Consulting; Environmental Lobbying; Environmental Planning; Environmental Protection; Environmental Compliance; Environmental Engineering; Air Quality Control; Landscape Architecture; Urban and Regional Planning; Alternative Energy Development; Risk Analysis; Contaminated Lands Reclamation; Research; Consulting

REQUIRED PROGRAM .......................................................... Units

Core Courses:

- GEOG 302 Environmental Studies & Sustainability .......................... 3
- BIOL 350 Environmental Biology (3) or BIOL 352 Conservation Biology (3) ............... 3
- ECON 306 Environmental Economics ......................................... 3

A.S. - Environmental Studies and Sustainability continued

Field/Applied Courses:
A minimum of three (3) units from the following: ........................................ 3
- BIOL 390 Natural History Field Study (0.5 - 4)
- GEOG 390 Field Studies in Geography (0.5 - 4)
- GEOL 390 Field Studies in Geology (0.5 - 4)
- GEOG 331 Exploring Maps and Geographic Technologies (3)
- GEOG 335 Introduction to Geographic Information Systems Applications (3)
- GEOG 353 Introduction to the Global Positioning System (GPS) (1)

Natural Science/Ecology Courses:
A minimum of three (3) units from the following: ........................................ 3
- BIOL 300 The Foundations of Biology (3)
- BIOL 307 Biology of Organisms (4)
- BIOL 310 General Biology (4)
- BIOL 366 Introduction to Toxicology: The Biology and Chemistry of Poisons (3)
- BIOL 400 Principles of Biology (5)

Chemistry Courses:
A minimum of four (4) units from the following: ....................................... 4
- CHEM 305 Introduction to Chemistry (5)
- CHEM 321 Environmental Chemistry (3)
- CHEM 322 Environmental Chemistry Laboratory (1)
- CHEM 400 General Chemistry (5)

Earth Science Courses:
A minimum of three (3) units from the following: .................................... 3
- GEOG 300 Physical Geography: Exploring Earth's Environmental Systems (3)
- GEOG 301 Physical Geography Laboratory (1)
- GEOL 300 Physical Geology (3)
- GEOL 301 Physical Geology Laboratory (1)

Quantitative Courses:
A minimum of three (3) units from the following: .................................... 3
- STAT 300 Introduction to Probability and Statistics (4)
- PSYC 330 Introductory Statistics for the Behavioral Sciences (3)
- MATH 350 Calculus for the Life and Social Sciences I (3)
- MATH 400 Calculus I (5)

Social Science Courses:
- ECON 304 Principles of Microeconomics ............................................ 3
- GEOG 310 Human Geography: Exploring Earth's Cultural Landscapes .......................... 3

TOTAL UNITS REQUIRED ................................................... 31

Suggested Electives:
- ANTH 310, ARCH 302, ARCH 303, ARCH 340, ARCH 341; BIOL 351; ECON 302; GEOG 305, GEOG 306; GEOL 330; HORT 302; POLS 301; PS 302

Associate Degree
The Environmental Studies & Sustainability Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF ACHIEVEMENT
Professional Applications of
Geographic Information Systems (GIS)
CODE #1432

A geography information system (GIS) is a database management system that facilitates the collection and 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. The certificate will be awarded upon completion of the required course sequence and 6 units from one of the listed concentrations.

REQUIRED PROGRAM ................................................................. Units

Fundamentals of Geography
GEOG 310 Human Geography: Exploring Earth’s Cultural Landscapes (3)
or GEOG 300 Physical Geography: Exploring Earth’s Environmental Systems (3).......................... 3
GEOG 353 Introduction to the Global Positioning System (GPS)................................. 1
GEOG 335.1 Fundamentals of Geographic Information Systems .................................................. 1
GEOG 335.2 Intermediate GIS .................................................................. 1
GEOG 335.3 Projects Using GIS ................................................................. 1
GEOG 331 Exploring Maps and Geographic Technologies ............... 3
GEOG 495 Independent Studies in Geography .........................1-3

Spatially related courses
Six (6) units selected from one of the following concentrations: ......6

Agriculture/Horticulture/Plant Science
A minimum of 6 units from the following:
AGB 300 Introduction to Agriculture Business (3)
AGB 310 Agriculture Computer Applications (3)
HORT 300 Introduction to Horticulture (3)
PLTS 300 Introduction to Plant Science (3)
PLTS 310 Soils, Soil Management, and Plant Nutrition (3)

Architecture
A minimum of 6 units from the following:
ADT 310 Architectural Computer-Aided Drawing I (3)
ARCH 325 Architectural Digital Design and Communication I (2)
ARCH 320 Architectural Design and Communication I (3.5)
ARCH 300 Introduction to Design Professions (2)

Biological Sciences
A minimum of 6 units from the following:
BIOL 410 Principles of Botany (5)
BIOL 420 Principles of Zoology (5)
BIOL 400 Principles of Biology (5)
BIOL 350 Environmental Biology (3)
BIOL 342 The New Plagues: New and Ancient Infectious Diseases Threatening World Health
BIOL 307 Biology of Organisms (4)

Business/Marketing/Real Estate
A minimum of 6 units from the following:
RE 300 California Real Estate Principles (3)
RE 190 Real Property Management (3)
RE 140 Real Estate Appraisal (3)
RE 120 Real Estate Practice (3)
MKT 330 Internet Marketing (3)
MKT 314 Advertising (3)
MKT 300 Principles of Marketing (3)
BUS 350 Small Business Management/Entrepreneurship (3)
BUS 300 Introduction to Business (3)

Professional Applications of Geographic Information Systems (GIS) continued

Computer Science
A minimum of 6 units from the following:
CISA 321 Intermediate Database Management (1)
CISA 320 Introduction to Database Management (1)
CISP 350 Database Programming (3)
CISP 360 Introduction to Structured Programming (4)
CISP 300 Algorithm Design/Problem Solving (3)

Earth Science
A minimum of 6 units from the following:
PS 302 Introduction to Physical Science (4)
GEOG 330 Introduction to Oceanography (3)
GEOG 305 Earth Science (3)
GEOG 300 Physical Geology (3)
GEOG 322 Geography of California (3)
GEOG 306 Weather and Climate (3)
GEOG 320 World Regional Geography (3)

Public Safety/Fire Technology
A minimum of 6 units from the following:
FT 320 Hazardous Materials (3)
FT 301 Fire Prevention Technology (3)
FT 300 Fire Protection Organization (3)

Social Science
A minimum of 6 units from the following:
SOC 301 Social Problems (3)
SOC 300 Introductory Sociology (3)
ANTH 300 Physical Anthropology (3)
ANTH 310 Cultural Anthropology (3)

TOTAL UNITS REQUIRED .......................................................17-19

1 Only one unit required. Independent study unit must be GIS related.
GEOGRAPHY (GEOG)

GEOG 300
Physical Geography: Exploring Earth's Environmental Systems 3 Units
Prerequisite: None
Advisory: Concurrent enrollment in GEOG 301 (Physical Geography Lab) is suggested. GEOG 301 meets the UC and CSU transfer requirement for a 1-unit science lab.
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 to help students better understand Earth's physical environment as well as human-environment interaction. A field trip may be required to relate class discussions to the real world. (C-ID GEOG 110)

GEOG 301
Physical Geography Laboratory 1 Unit
Prerequisite: None
Corequisite: GEOG 300; (may be taken previously). Grade of "C" or better required to meet corequisite.
General Education: CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course provides "hands-on" study of the basic principles and concepts involved in understanding Earth's environment systems. Labs feature observation, collection, analysis and display of data related to the study of Earth's energy balance, weather and climate, vegetation, tectonic processes, landforms, and natural hazards. Additionally, labs involve geographic methods and technology, including interpretation of maps and other geographic imagery, weather instrumentation, navigation equipment such as a compass and the Global Positioning System (GPS), and other relevant computer and Internet applications. A field trip may be required. (C-ID GEOG 111)

GEOG 302
Environmental Studies & Sustainability 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); CSU Area D5; CSU Area D7; IGETC Area 4E; IGETC Area 4G
Course Transferable to UC/CSU
Hours: 54 hours LEC
This introductory course offers an interdisciplinary perspective on the major environmental problems confronting society and explores solutions directed toward producing a more sustainable future. Course topics include an introduction to environmental issues, and related values, ethics and politics; a primer on Earth system science and the interconnected nature of the atmosphere, hydrosphere, lithosphere, and biosphere; a global survey of natural resources and exploitation; changing global climates; the world water crisis; the demography of human population, and contrasts between less- and more-developed countries; agricultural and food supply challenges; renewable and nonrenewable energy resources; and land use patterns and related issues. Throughout the course, human impacts on the environment, environmental impacts on human societies, and the sustainability of economies and practices at local, regional, and global scales are investigated. A field trip may be required to relate class discussions to the real world.

GEOG 305
Global Climate Change 3 Units
Same As: BIOL 351
Prerequisite: None
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This interdisciplinary course explores the natural and human factors causing the Earth's climate to change. Whether alarmed, skeptical, or just curious about climate change, this course will provide the scientific tools to analyze the evidence that climate change is a looming threat. Through lectures, readings, discussions and projects, students will examine the Earth's present and past climates as well as the influence of climate on the geographical distribution of plants, animals and human societies. This course is the same as BIOL 351, and only one may be taken for credit.

GEOG 306
Weather and Climate 3 Units
Prerequisite: None
Advisory: MATH 30; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. (C-ID GEOG 130)

GEOG 310
Human Geography: Exploring Earth's Cultural Landscapes 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D5; IGETC Area 4E
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. (C-ID GEOG 120)

GEOG 320
World Regional Geography 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D5; IGETC Area 4E
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. 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.” (C-ID GEOG 125)
GEOG 322
Geography of California 3 Units
Prerequisite: None
General Education: AA/AS Area V(6); AA/AS Area VI; CSU Area D5; IGETC Area 4E
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. Some field trips may be required. (C-ID GEOG 140)

GEOG 331
Exploring Maps and Geographic Technologies 3 Units
Prerequisite: None
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 44 hours LEC; 30 hours LAB
Maps are the most effective way to communicate spatial information. This course introduces students to the quickly changing world of maps (both hard-copy and digital) and geographic techniques and technologies such as map and aerial photograph interpretation, spreadsheet operations, basic statistics, cartography, Global Positioning Systems (GPS), Internet mapping, remote sensing and Geographic Information Systems (GIS) that aid in data collection, analysis and presentation.

GEOG 335
Introduction to Geographic Information Systems Applications 3 Units
Prerequisite: None
Advisory: CISC 302
Course Transferable to CSU
Hours: 30 hours LEC; 72 hours LAB
Geographic Information Systems (GIS) are computer-based tools that are used to generate spatial data in order to make a decision. Through the use of ArcGIS software, this course establishes an understanding of GIS, its applications, and functionality. Students build a foundation of theory and techniques for GIS functionality, data formats and input, spatial analysis, data presentation and manipulation, and map production. Students will learn many of the functions of GIS. This course is not open to students who have received credit for GEOG 335.1, 335.2, and 335.3. (C-ID GEOG 155)

GEOG 335.1
Fundamentals of Geographic Information Systems 1 Unit
Prerequisite: None
Advisory: CISC 302
Course Transferable to CSU
Hours: 12 hours LEC; 18 hours LAB
Geographic Information Systems (GIS) are computer-based tools that are used to generate spatial data in order to make a decision. Through the use of ArcGIS software, this course establishes a basic understanding of GIS, its applications, and functionality. Students build a foundation of theory and techniques for GIS functionality, data formats and input, spatial analysis, data presentation and manipulation, and map production. Students will learn many of the basic functions of GIS including presentation, symbology, and labeling of data as well as spatial data analysis and map production. This course is not open to students who have received credit for GEOG 335.1, 335.2 and 335.3 are also completed) (C-ID GEOG 155)

GEOG 335.2
Intermediate GIS 1 Unit
Prerequisite: GEOG 335.1 with a grade of “C” or better
Course Transferable to CSU
Hours: 12 hours LEC; 18 hours LAB
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 ArcGIS software, this course builds on the foundation of GIS techniques learned in Geography 335.1. Students will learn techniques for GIS data input, spatial analysis, methods of ArcGIS 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. (C-ID GEOG 155 only if GEOG 335.1 and 335.3 are also completed) (C-ID GEOG 155)

GEOG 335.3
Projects Using GIS 1 Unit
Prerequisite: GEOG 335.2 with a grade of “C” or better
Course Transferable to CSU
Hours: 6 hours LEC, 36 hours LAB
Geographic Information Systems (GIS) are increasingly being used by business, industry, and research institutions in place of other analysis of spatial data. This course is designed to allow students to produce projects using industry-leading GIS software and technologies. The students will work individually 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. (C-ID GEOG 155 only if GEOG 335.1 and 335.2 are also completed) (C-ID GEOG 155)

GEOG 353
Introduction to the Global Positioning System (GPS) 1 Unit
Prerequisite: None
Course Transferable to CSU
Hours: 16 hours LEC; 6 hours LAB
This course introduces the Global Positioning System (GPS). Topics include basic concepts of GPS including hands-on operation of the technology, real-world applications, computer interfaces, GIS and other mapping software. A field trip may be required.

GEOG 390
Field Studies in Geography .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 24 hours LEC; 144 hours LAB
This course involves the study of geographic principles and processes in the field. Course content will vary by destination but may include topics in physical geography (e.g., plant and animal communities, climate and weather, geology and geomorphology, natural hazards, environmental impacts, etc.), human geography (e.g., cultural landscapes, economic activities, transportation issues, land use patterns, etc.), and/or introduction to tools and techniques used for geographic field research (e.g., map and compass use, the Global Positioning System (GPS), Geographic Information Systems (GIS), etc.). Field trip(s) are required.
### GEOG 392
Field Studies in Geography: Coastal Landscapes  
1-4 units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 6-24 hours LEC; 36-144 hours LAB  
This is a field studies course of the geography of coastal landscapes. Physical and cultural processes, characteristics and landscapes will be observed and analyzed. Specific content will vary by geographic region. A field trip is required.

### GEOG 481
Honors Seminars: Nature & Culture  
3 Units  
Same As: HONOR 382 and HUM 484  
Prerequisite: None  
General Education: AA/AS Area I; CSU Area C2; CSU Area D5; IGETC Area 3B; IGETC Area 4E  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as HONOR 382 and HUM 484, and only one may be taken for credit.

### GEOG 482
Honors Seminar in Geography  
1 Unit  
Same As: HONOR 384  
Prerequisite: None  
General Education: AA/AS Area IV  
Course Transferable to CSU  
Hours: 9 hours LEC; 27 hours LAB  
Honors Seminars in Geography are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. In these seminars, students will study advanced topics from the area of Geography. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as HONOR 384. This course under either name may be taken one time for credit.

### GEOG 495
Independent Studies in Geography  
1-3 Units  
Prerequisite: None  
Course Transferable to CSU  
See UC Limitations & Counselor  
Hours: 54 hours LEC; 54 hours LAB  
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
GEODES
A.S.-T – Geology for Transfer
A.S. — Geology

See also:
Professional Applications of Geographic Information Systems (GIS) (Earth Science emphasis)
(Geography Program)

Program Description
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.

All 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 300, 301, 310, and 311.

Career Opportunities
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 Opportunities 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

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

Field Study Classes at Cosumnes River College
Nature is often the best classroom! Come learn outside in Cosumnes River College’s field study courses. These classes consist of short classroom sessions followed by extended trips to some of the most unique and beautiful environments in California, including Big Sur, Monterey Bay, Mt. Lassen, Point Reyes, Yosemite and more! These short-term classes are offered by several departments, including Biology, Geography, Geology and Photography. For more information about specific classes, consult the class schedule or contact each department.
**DEGREE**
**A.S.-T – Geology for Transfer**
CODE #1990

**Note to Transfer Students:**
The Geology for Transfer A.S.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

**REQUIRED PROGRAM**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>GEOL 300*</td>
<td>Physical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 301</td>
<td>Physical Geology Laboratory</td>
<td>1</td>
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<tr>
<td>GEOL 310*</td>
<td>Historical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 311*</td>
<td>Historical Geology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 401*</td>
<td>General Chemistry</td>
<td>5</td>
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<tr>
<td>MATH 400*</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 401*</td>
<td>Calculus II</td>
<td>5</td>
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<tr>
<td>TOTAL UNITS:</td>
<td></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>

**DEGREE TOTAL (INCLUDING GE)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL UNITS:</td>
<td></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

* Major courses which also fulfill a transfer General Education (GE) requirement ("double-counting"). Please note that there are limitations on double-counting — consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

**Associate in Science in Geology for Transfer Degree**
The Associate in Science in Geology for Transfer (A.S.-T) degree may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.

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**DEGREE**
**A.S. – Geology**
CODE #0642

This degree is designed to meet common lower division requirements for a major in geology.

**REQUIRED PROGRAM**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 400</td>
<td>General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 401</td>
<td>General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>GEOL 300</td>
<td>Physical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 301</td>
<td>Physical Geology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 310</td>
<td>Historical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 311</td>
<td>Historical Geology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>MATH 400</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 401</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL UNITS REQUIRED:</td>
<td></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>

**Associate Degree**
The Geology Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

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**GEOLOGY (GEOL)**

**GEOL 300**
**Physical Geology**

3 Units
Prerequisite: None
Advisory: Concurrent enrollment in GEOL 301.
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC

Physical Geology introduces the composition and dynamics of Earth from the atomic scale of minerals to the global scale of plate tectonics. Major themes include the composition of minerals and rock, volcanism, Earth structures, earthquakes, erosion and surface processes, geologic time, geologic hazards, and plate tectonics. This course analyzes human interactions with geologic processes and the physical environment. Successful completion of physical geology prepares the student to recognize, understand, and appreciate the physical processes which continually change Earth over geologic time. (C-ID GEOL 100)

**GEOL 301**
**Physical Geology Laboratory**

1 Unit
Prerequisite: None
Corequisite: GEOL 300 (may be taken previously)
General Education: CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LAB

This course provides “hands-on” experience with the tools and skills discussed in Physical Geology (GEOL 300). 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. (C-ID GEOL 100L)

**GEOL 305**
**Earth Science**

3 Units
Prerequisite: None
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC

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. This course is not open to students who have received credit for GEOL 300 or GEOL 310.

**GEOL 306**
**Earth Science Laboratory**

1 Unit
Prerequisite: None
Corequisite: GEOL 305
General Education: CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LAB

This course emphasizes scientific methods and systematic laboratory procedures. Topics include weather analysis, rock and mineral identification, study of geologic concepts by means of topographic maps, and exercises in astronomy and oceanography. One field trip may be required. Not open to students who have received credit for GEOL 300 or GEOL 301. (C-ID GEOL 120L)
GEOL 310
Historical Geology 3 Units
Prerequisite: None
Advisory: GEOL 300 or 305; An introductory geology or earth science course.
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course explores the origin and geologic history of Earth and the evolution of its plant and animal inhabitants. Plate tectonic theory is used to explain changes in composition and structure of rocks in Earth's crust from the formation of 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 Earth's ocean, atmosphere, and surface. Present day Earth processes are used as a model to understand past activity. (C-ID GEOL 110)

GEOL 311
Historical Geology Laboratory 1 Unit
Prerequisite: None
Corequisite: GEOL 310
Advisory: GEOL 300 and 301
General Education: CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LAB
Laboratory studies will accompany and complement GEOL 310, Historical Geology. Use of sedimentary rocks, fossils, geologic maps, and cross sections will aid in interpreting ancient environments, tectonic settings, and geologic history. Other concepts addressed include age relations and correlation of rock and time units, and introduction to fossil identification and biostratigraphy. At least one field trip or an appropriate alternative activity will be required as an introduction to sedimentary environments and field methods in geology. (C-ID GEOL 110L)

GEOL 330
Introduction to Oceanography 3 Units
Prerequisite: None
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

GEOL 390
Field Studies in Geology .5-4 Units
Prerequisite: None
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 24 hours LEC; 144 hours LAB
This course covers the study of geologic principles and processes of specific areas (mountains, deserts, great valley, coastal region, etc.). For specific details, see the course description(s) listed in the schedule. Students will be responsible for providing their own lodging (or camping equipment) and meals.

GEOL 495
Independent Studies in Geology 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

GEOL 499
Experimental Offering in Geology .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
CERTIFICATES OF PROFICIENCY

Health Care IT Implementation Support Specialist
Health Care IT Technical Support Specialist
Health Care IT Trainer

Program Description
The Health Care IT certificates are designed to quickly train students in the kind of computerized health information systems that are being installed by hospitals, medical and dental offices across the country. These IT systems make it possible for health care providers to better manage patient care through secure use and sharing of health information in electronic form. The electronic systems are replacing inefficient paper records and allow health providers to quickly review and update a patient's medical history, which can be shared electronically as patients move to other health systems and/or to other geographic locations. Students completing these programs will support the IT systems that are in place in various health care related facilities.

CRC has implemented three certificates. The Health Care IT Implementation Support Specialist Certificate will train students to provide on-site user support for the period of time before and during implementation of health care IT systems in clinical and public health settings. These individuals will provide support services, above and beyond what is provided by the vendor, to be sure the technology functions properly and is configured to meet the needs of the redesigned practice workflow. The Health Care IT Technical Support Specialist Certificate will train students to support the technology deployed in clinical and public health settings on an ongoing basis. Workers in this role maintain systems in clinical and public health settings, including patching and upgrading of software. They also provide one-on-one support, in a traditional “help desk” model, to individual users with questions or problems. The Health Care IT Trainer Certificate will prepare students to design and deliver training programs, using adult learning principles, to employees in clinical and public health care settings on the use of health care IT systems.

Career Opportunities
Health Care IT Implementation Support Specialist who will:
• Execute health IT system implementation plans, by installing hardware (as needed) and configuring software
• Incorporate usability principles into design and implementation
• Test the software against performance specifications
• Interact with the vendors as needed to rectify problems that occur during the deployment process

Health Care IT Technical Support Specialist will:
• Maintain systems in clinical and public health settings, including patching and upgrading of software.
• Interact with end users to diagnose IT problems and implement solutions
• Document IT problems and evaluate the effectiveness of problem resolution
• Support systems security and standard

Health Care IT Trainer will:
• Design and deliver training programs, using adult learning principles, to employees in clinical and public health settings
• Communicate both health and IT concepts as appropriate
• Assess training needs and competencies of learners
• Design lesson plans, structuring active learning experiences for users
• Track training records of the users and develop learning plans for further instruction

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo
CERTIFICATE OF PROFICIENCY
Health Care IT Implementation Support Specialist
CODE #1957

Enrollment Eligibility:
To be eligible for enrollment in the program, the student must meet the following criteria:

Completion of the following pre-requisite courses with a grade of “C” or better:
• CISA 320 – Introduction to Database Management
• CISC 356 – Introduction to Local Area Networks
• HCIT 104 – Medical Terminology for Health Care IT Professionals or AH 110 – Medical Language for Health-Care Providers
• HCIT 110 – Introduction to Information and Computer Science for Health Care Professionals or CISC 310 – Introduction to Computer Information Science
• HCIT 112 – Networking and Health Information Exchange for Health Care IT Professionals

REQUIRED PROGRAM................................................................ Units
1st Semester:
HCIT 102 The Culture of Health Care................................. 2
HCIT 140 Introduction to Health Care Management Information Systems ........................................ 2
HCIT 164 Usability and Human Factors in Health Care IT........ 1

2nd Semester:
HCIT 132 Configuring Electronic Health Records (EHRs)........ 2
HCIT 142 Installation and Maintenance of Health Care IT Systems ................................................... 2
HCIT 144 Working in Health Care IT Systems........................ 2

3rd Semester:
HCIT 160 Professionalism and Customer Service in Health Care Environment ....................................... 1
HCIT 162 Training and Instructional Design in Health Care IT ......................................................... 1
HCIT 180 Special Topics Course on Vendor-Specific Systems in Health Care IT................................. 1
COMM 341 Organizational Communication .......................... 3
or COMM 361 The Communication Experience (3)

TOTAL UNITS REQUIRED .................................................. 17

CERTIFICATE OF PROFICIENCY
Health Care IT Technical Support Specialist
Code #1958

Enrollment Eligibility
To be eligible for enrollment in the program, the student must meet the following criteria:

Completion of the following pre-requisite courses with a grade of “C” or better:
• CISA 320 – Introduction to Database Management
• CISC 356 – Introduction to Local Area Networks
• HCIT 104 – Medical Terminology for Health Care IT Professionals or AH 110 – Medical Language for Health-Care Providers
• HCIT 110 – Introduction to Information and Computer Science for Health Care Professionals or CISC 310 - Introduction to Computer Information Science
• HCIT 112 – Networking and Health Information Exchange for Health Care IT Professionals

REQUIRED PROGRAM................................................................ Units
1st Semester
CISN 330 Data Communication & Networking Fundamentals..... 3
CISS 310 Network Security Fundamentals.................................... 3

2nd Semester
CISN 490 Networking Helpdesk Practicum ............................... 2
HCIT 160 Professionalism & Customer Service in the Health Care Environment ..................................... 1
HCIT 164 Usability & Human Factors in Health Care IT ......... 1
HCIT 180 Special Topics Course on Vendor-Specific Systems in Health Care IT................................. 1

3rd Semester
HCIT 132 Configuring Electronic Health Records (EHRs)........ 2
HCIT 142 Installation & Maintenance of Health Care IT Systems ......................................................... 2
HCIT 144 Working with Health Care IT Systems...................... 2

TOTAL UNITS REQUIRED .................................................. 17
HEALTH CARE IT (HCIT)

HCIT 100
Introduction to Health Care and Public Health in the U.S. 2 Units
Prerequisite: None
Hours: 36 hours LEC
This course is a survey of how health care and public health are organized and services delivered in the United States. It also covers public policy, relevant organizations and their interrelationships, professional roles, legal and regulatory issues, and payment systems.

HCIT 102
The Culture of Health Care 2 Units
Prerequisite: None
Hours: 36 hours LEC
This course addresses job expectations in a health care setting. It covers how care is organized inside a practice setting, privacy laws, and professional and ethical issues encountered in the workplace.

HCIT 104
Medical Terminology for Health Care IT Professionals 2 Units
Prerequisite: None
Hours: 36 hours LEC
This course is designed to give IT Professionals an overview of medical language. Students will learn basic terms found in the health care systems. This course is intended only for students in the HCIT program. If you are interested in other Allied Health programs, please see a counselor or someone in the appropriate department to determine which medical terminology course will meet your program’s requirements.

HCIT 110
Introduction to Information and Computer Science for Health Care Professionals 2 Units
Prerequisite: None
Hours: 36 hours LEC
This course provides a basic overview of computer architecture; data organization, representation and structure; and the fundamentals of data communication. This course also covers a large breadth of terminology used in the computer industry.

HCIT 112
Networking and Health Information Exchange for Health Care IT Professionals 2 Units
Prerequisite: CISC 310 or HCIT 110 with a grade of "C" or better
Hours: 36 hours LEC
This course is designed to give IT Professionals an overview of data mobility. Students will learn about hardware infrastructure, Internet protocols, nationwide health care information systems, and other nationwide approaches.
HCIT 132
Configuring Electronic Health Records (EHRs)  
2 Units  
Prerequisite: AH 110 or HCIT 104 with a grade of “C” or better  
Hours: 27 hours LEC; 27 hours LAB  
This course offers a practical experience with a laboratory component, addressing approaches to assessing, selecting, and configuring EHRs to meet the specific needs of customers and end-users.

HCIT 140
Introduction to Health Care Management Information Systems  
2 Units  
Prerequisite: None  
Hours: 36 hours LEC  
This course is an introduction to health care IT standards, health-related data structures, software applications, and enterprise architecture in health care and public health organizations.

HCIT 142
Installation and Maintenance of Health Care IT Systems  
2 Units  
Prerequisite: CISA 320, CISC 356, and HCIT 112 with grades of “C” or better  
Hours: 27 hours LEC; 27 hours LAB  
This course covers the installation and maintenance of a Health IT system, including testing prior to implementation. Introduction to principles underlying system configuration is also covered.

HCIT 144
Working with Health Care IT Systems  
2 Units  
Prerequisite: HCIT 142 with a grade of “C” or better  
Hours: 27 hours LEC; 27 hours LAB  
Students will work with simulated systems or real systems with simulated data. As they play the role of practitioners using these systems, they will learn what is happening under the hood. They will experience threats to security and appreciate the need for standards, high levels of usability, and how errors can occur.

HCIT 160
Professionalism and Customer Service in the Health Care Environment  
1 Unit  
Prerequisite: None  
Hours: 18 hours LEC  
This course is designed to give IT Professionals an overview of the skills necessary to communicate effectively across the full range of roles that will be encountered in health care and public health settings.

HCIT 162
Training and Instructional Design in Health Care IT  
1 Unit  
Prerequisite: None  
Hours: 18 hours LEC  
This course is an overview of learning management systems, instructional design software tools, teaching techniques and strategies, evaluation of learner competencies, maintenance of training records, and measurement of training program effectiveness in Health Care IT.

HCIT 164
Usability and Human Factors in Health Care IT  
1 Unit  
Prerequisite: None  
Hours: 18 hours LEC  
This course covers the discussion of rapid prototyping, user-centered design and evaluation, usability; understanding effects of new technology and workflow on downstream processes; and facilitation of a unit-wide focus group or simulation.

HCIT 180
Special Topics Course on Vendor-Specific Systems in Health Care IT  
1 Unit  
Prerequisite: None  
Hours: 18 hours LEC  
This course is designed to give IT Professionals an overview of the most popular vendor systems, highlighting the features of each and noting the differences between the systems.

HCIT 298
Work Experience in Health Care Information Technology  
1-4 Units  
Prerequisite: None  
General Education: AA/AS Area III(b)  
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Health Care Information Technology.  
Hours: 300 hours LAB  
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in associate degree level or certificate occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student's progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

HCIT 299
Experimental Offering in Health Care Information Technology  
.5-4 units  
Prerequisite: None  
Hours: 18 hours LEC; 54 hours LAB  
This course is an overview of learning management systems, instructional design software tools, teaching techniques and strategies, evaluation of learner competencies, maintenance of training records, and measurement of training program effectiveness in Health Care IT.
DEGREE
A.S.—Health

Program Description
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 several emergency response courses.

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.

NOTE:
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.S.—Health
CODE #1581

The program in Health is typical of lower division requirements for four-year colleges and universities (though some requirements tend to vary from college to college). For specific requirements, students should refer to a catalog of the college of their choice. Students are also advised to see a counselor before selecting courses best aligned with their transfer institution.

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 310</td>
<td>General Biology</td>
<td>4</td>
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<tr>
<td>or BIOL 400</td>
<td>Principles of Biology</td>
<td>4-5</td>
</tr>
<tr>
<td>BIOL 430</td>
<td>Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 431</td>
<td>Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 305</td>
<td>Introduction to Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>or CHEM 400</td>
<td>General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>HEED 300</td>
<td>Health Science</td>
<td>3</td>
</tr>
<tr>
<td>NUTRI 300</td>
<td>Nutrition</td>
<td>3</td>
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</table>

A minimum of 6 units from the following: 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BIOL 440</td>
<td>General Microbiology</td>
<td>4</td>
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<tr>
<td>HEED 350</td>
<td>Personal Wellness</td>
<td>3</td>
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<tr>
<td>PSYC 320</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or ECE 312</td>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 353</td>
<td>Psychology of Adjustment</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 300</td>
<td>General Principles</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 356</td>
<td>Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>SOC 300</td>
<td>Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 310</td>
<td>Conceptual Physics</td>
<td>3</td>
</tr>
<tr>
<td>or PHYS 350</td>
<td>General Physics</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 330</td>
<td>Introductory Statistics for the Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 300</td>
<td>Introduction to Probability and Statistics</td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED 31-32

1 The student should choose a minimum of 6 units from these electives based on the requirements for a Health degree at the transfer institution. More than 6 units may be necessary to fulfill the requirements of some transfer institutions. (Also see list of suggested electives).

Suggested Electives:
ACCT 301  
BIOL 307, 420  
BUS 350  
CHEM 306, 401  
ECON 302, 304  
MATH 400  
PHYS 360

Associate Degree
The Health Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
HEALTH EDUCATION (HEED)

HEED 300
Health Science 3 Units
Prerequisite: None
General Education: AA/AS Area III(b); CSU Area E1
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

HEED 350
Personal Wellness 3 Units
Same As: KINES 301
Prerequisite: None
General Education: AA/AS Area III(b); CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC
This course takes a personal approach to lifetime healthy habits. The students will relate their own lives to topics that include: fitness, weight management, nutrition, stress management, risky behaviors and prevention of diseases. Evaluation, plans for change and reinforcement will be applied through the use of journals, projects, written assignments, physical assessments and exams. This course is the same as KINES 301, and only one may be taken for credit.

HEED 495
Independent Studies in Health Education 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

HEED 499
Experimental Offering in Health Education .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.S. – Health Information Technology

CERTIFICATE OF ACHIEVEMENT
Health Information Coding Specialist

Program Description
The CRC Health 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.

The Associate of Science in Health Information Technology (HIT) prepares students for a career in a variety of health care settings across an array of health care environments. Health Information Technician graduates are employed in hospitals, as well as in other health care settings, including public/private health agencies, mental health facilities, long-term care, ambulatory care, state and federal health agencies, physician practices and home health agencies.

Health Information Technicians verify health information data for completeness and accuracy, use computer applications to integrate and assess patient data, compile and report health information data for reimbursement, facility planning, marketing, risk management, utilization management, quality assessment, and research. HIT professionals code and abstract clinical data using the appropriate classification systems.

Career Opportunities
Health Information Analyst
Release of Information Consultant
ICD/CPT Coder
Medical Staff Coordinator
Health Information Abstractor
Supervisor, Health Information Data Quality Manager
Quality Improvement Coordinator

Employment opportunities possible in the following settings:
Ambulatory Care
Long-Term Care/Rehabilitation
State and Federal Health Agencies
Professional Review Organizations
Insurance Companies
Consulting Firms
Mental Health/Chemical Dependency
Acute Care

Some Career Opportunities may require experience in addition to at least one year of college study.

Highlights
- As the health care industry continues to grow and expand, the demand for health information technicians also increases. Employment is expected to grow faster than average through the year 2018 (Bureau of Labor Statistics 2010) because of the rapid growth in tests, treatments and procedures available.
- This Program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education in collaboration with the American Health Information Management Association. (CAHIIM)
- Earnings of health information technicians vary by type and size of facility, level of responsibility and geographic region. The mean annual wage is $38,880 (Bureau of Labor Statistics 2010)
- Non-paid clinical experience in applying classroom-based knowledge at affiliated health-related agencies.
- This is an online program.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo
DEGREE
A.S. — Health Information Technology
CODE #1252

Enrollment Eligibility:
To be eligible for enrollment in the program, the student must meet the following criteria:

- Completion of AH 110, AH 124 and BIOL 100 or 102 with grades of C or better.
- Completion of a pre-enrollment form. Forms are available online at: http://www.crc.losrios.edu/Areas_of_Study/Careers_and_ Technology/Health_Information_Technology/Pre-Enrollment_Form.htm
- Fulfill all requirements set forth by the CRC Allied Health Practicum Guidelines including but not limited to: background clearance, physical examination, immunization clearance and drug screening.
- Have access to the Internet
- Have an e-mail account
- Be familiar with word processing, retrieving and attaching electronic documents and using the World Wide Web.

REQUIRED PROGRAM ................................................................. Units
Semester 1 – Fall:
HIT 100 Introduction to Health Information Technology: Hospital Settings .................................................. 3
HIT 120 Basic ICD-CM Coding ................................................. 2
HIT 102 Introduction to Health Information Technology: Alternative Settings .............................................. 2
AH 120 Human Disease ........................................................ 3
CISC 302 Computer Familiarization ........................................ 2
Semester 2 – Spring:
HIT 122 Advanced ICD Coding .............................................. 4
HIT 130 Health Statistics ...................................................... 2
HIT 140 Computerized Health Information Systems ................. 2
Semester 3 – Fall:
HIT 110 Medical Legal Aspects of Health Information ............... 2
HIT 150 Continuous Quality Improvement ............................... 2
HIT 170 Health Information Technology Directed Practice I ...... 4
Semester 4 – Spring:
HIT 160 Supervision for the Allied Health Professional .............. 2
HIT 171 Health Information Technology Directed Practice II ..... 4
CISA 315 Introduction to Electronic Spreadsheets .................. 2
CISA 320 Introduction to Database Management .................... 1
TOTAL UNITS REQUIRED ......................................................... 39

Note: AH 110, AH 124, and BIOL 100 or 102 must be taken prior to enrolling in the HIT program as part of the pre-enrollment process. Contact the Careers and Technology Division Office for more information.

Associate in Science Degree
The Health Information Technology Associate in Science (A.S.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Health Information Coding Specialist
CODE #1372

The Health Information Coding Specialist Certificate prepares the student to apply medical coding classifications to health care encounters using industry standards through both theory and practical (externship) applications for the purpose of: meeting health care industry needs; preparing students for appropriate certification exams; and providing career ladder opportunities for health care workers. A career as a health information coding specialist 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.

The Certificate of Achievement Health Information Coding Specialist Program is not accredited by the Commission on Accreditation for Health Informatics and Information Education (CAHIIM).

Enrollment Eligibility:
To be eligible for enrollment in the program, the student must meet the following criteria:

- Completion of AH 110, AH 124 and BIOL 100 or 102 with grades of C or better.
- Completion of a pre-enrollment form. Forms are available online at: http://www.crc.losrios.edu/Areas_of_Study/Careers_and_ Technology/Health_Information_Technology/Pre-Enrollment_Form.htm
- Fulfill all requirements set forth by the CRC Allied Health Practicum Guidelines including but not limited to: background clearance, physical examination, immunization clearance and drug screening.
- Have access to the Internet
- Have an e-mail account
- Be familiar with word processing, retrieving and attaching electronic documents and using the World Wide Web.

REQUIRED PROGRAM ................................................................. Units
Semester 1 – Fall:
HIT 100 Introduction to Health Information Technology: Hospital Settings .................................................. 3
HIT 120 Basic ICD-CM Coding ................................................. 2
AH 120 Human Disease ........................................................ 3
CISC 302 Computer Familiarization ........................................ 2
Semester 2 – Spring:
HIT 122 Advanced ICD Coding .............................................. 4
HIT 130 Health Statistics ...................................................... 2
Semester 3 – Fall:
HIT 110 Medical Legal Aspects of Health Information ............... 2
HIT 150 Continuous Quality Improvement ............................... 2
Semester 4 – Spring:
HIT 172 Directed Practice: Health Information Coding Specialist .................................................. 2
CISA 315 Introduction to Electronic Spreadsheets .................. 2
CISA 320 Introduction to Database Management .................... 1
TOTAL UNITS REQUIRED ......................................................... 27

Note: AH 110, AH 124, and BIOL 100 or 102 must be taken prior to enrolling in the HIT program as part of the pre-enrollment process. Contact the Careers and Technology Division Office for more information.
INTRODUCTION TO HEALTH INFORMATION

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 healthcare 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.

ADVANCED ICD CODING

This course is a study of advanced coding principles related to ICD-CM/PCS coding. Class lectures and labs will focus on learning and applying higher level coding skills. The Prospective Payment System (PPS) and Diagnosis Related Groups (DRGs) will be introduced as well as coding for prospective payment for acute inpatient, long term care, and inpatient rehabilitation care. Computerized encoders and groupers may be emphasized.

HEALTH INFORMATION TECHNOLOGY (HIT)

HIT 100
Introduction to Health Information Technology: Hospital Settings
Prerequisite: None
Hours: 45 hours LEC; 27 hours LAB
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 healthcare 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.

HIT 102
Introduction to Health Information Technology: Alternative Settings
Prerequisite: None
Hours: 36 hours LEC
This course introduces a multitude of alternative health care settings available to the health information management professional. The student will be introduced to: regulatory issues; documentation; reimbursement and funding; information management, including data flow, coding and classification, electronic information systems, and data sets; quality improvement and utilization management; risk management and legal issues; role of HIM professionals; and trends.

HIT 110
Medical Legal Aspects of Health Information
Prerequisite: HIT 100 with a grade of “C” or better
Hours: 36 hours LEC
This course explores the legal basis for the control, use and release of health information. This concept of consent for treatment and other procedures, as well as the ethical issues involved in the release of health care information will be addressed. Federal and state laws and regulations governing the handling of special health information (psychiatric, substance abuse and HIV/AIDS) will be reviewed.

HIT 120
Basic ICD-CM Coding
Prerequisite: AH 120 with a grade of “C” or better
Hours: 27 hours LEC; 27 hours LAB
This introductory course covers the basic principles of coding diseases and procedures using the INTERNATIONAL CLASSIFICATION OF DISEASES, Current Edition. Coding for reimbursement will be introduced, including topics such as third-party payers and health care reimbursement methodologies.

HIT 122
Advanced ICD Coding
Prerequisite: HIT 120 with a grade of “C” or better
Hours: 54 hours LEC; 54 hours LAB
This course is a study of advanced coding principles related to ICD-CM/PCS coding. Class lectures and labs will focus on learning and applying higher level coding skills. The Prospective Payment System and Diagnosis Related Groups (DRGs) will be introduced as well as coding for prospective payment for acute inpatient, long term care, and inpatient rehabilitation care. Computerized encoders and groupers may be emphasized.
HIT 170
Health Information Technology Directed Practice I 4 Units
Prerequisite: HIT 102, 110, 122, 123, 140, and 150 with grades of “C” or better
Hours: 36 hours LEC; 108 hours LAB
HIT 170 provides the student with practical work experience in community health-related institutions. The clinical experience is performed under professional supervision. Students perform delineated functions and will complete handbook questions about various health information management topics. 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 a non-paid laboratory experience. Students must have a TB clearance and any other immunization required by the clinical facility. A drug screen and background check may be required. Students must have an established Agency Agreement with a sponsoring site prior to the beginning of the first day of class. Contact the Career and Technology Main Office for information about the Agency Agreement.

HIT 171
Health Information Technology Directed Practice II 4 Units
Prerequisite: HIT 170 with a grade of “C” or better
Hours: 36 hours LEC; 108 hours LAB
HIT 171 follows HIT 170, and provides the student with continued practical work experience in community health-related institutions. The clinical experience is performed under professional supervision. Students perform delineated functions and will complete handbook questions about various health information management topics. 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 a non-paid laboratory experience. Students must have a TB clearance and any other immunization required by the clinical facility. A drug screen and background check may be required. Students must have an established Agency Agreement with a sponsoring site prior to the beginning of the first day of class. Contact the Career and Technology Main Office for information about the Agency Agreement.

HIT 172
Directed Practice: Health Information Coding Specialist 2 Units
Prerequisite: HIT 122 and 123 with grades of “C” or better
Hours: 27 hours LEC; 27 hours LAB
HIT 172 provides the student with practical work experience in community health-related institutions. The clinical experience is performed under professional supervision. Students perform coding and abstracting and other delineated functions and will complete handbook questions about various health information management topics. 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 a non-paid laboratory experience. Students must have a TB clearance and any other immunization required by the clinical facility. A drug screen and background check may be required. Students must have an established Agency Agreement with a sponsoring site prior to the beginning of the first day of class. Contact the Career and Technology Main Office for information about the Agency Agreement.

HIT 298
Work Experience in Health Information Technology 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Health Information Technology.
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in associate degree level or certificate occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

HIT 299
Experimental Offering in Health Information Technology .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
DEGREE
A.A.-T – History for Transfer

Program Description
The CRC History program offers a study of history which contributes to cultural literacy and develops critical thinking skills while helping students understand connections between the past and present.

Career Opportunities
Government Service, Archivist
Journalist, Foreign Service
Museum Curator, Historian
State Park Historian, Librarian
Writer, Researcher/Research Analyst
Teacher, Labor Leader
Attorney

Highlights
• Courses offered in U.S. History, World History and European History
• The History department sponsors and contributes to events on and off campus including global genocide, the history of women, and the struggles of indigenous people and the working class.
• Faculty includes widely published scholars and active historians with experience in foreign countries.

NOTE:
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

DEGREE
A.A.-T – History for Transfer
CODE # (PENDING CCCCO APPROVAL)

REQUIRED PROGRAM.............................................................. Units
US History:
HIST 312* History of the United States (to 1865).......................... 3
HIST 313* History of the United States (1865-1945)..................... 3

World History or Western Civilization:
HIST 301* History of Western Civilization (to 1660) (3)............ 3
or HIST 307* History of World Civilizations to 1500 (3)
HIST 302* History of Western Civilization.............................. 3
or HIST 308* History of World Civilizations, 1500 to Present (3)

List B:
A minimum of 3 units from the following:....................................... 3
HIST 320* History of the United States:
African-American Emphasis (3)
HIST 321* History of the United States:
African-American Emphasis (3)
HIST 331* Women in American History (3)
HIST 344* Survey of California History:
A Multicultural Perspective (3)
HIST 360* History of African Civilizations (3)
HIST 364* Asian Civilization (3)
HIST 365* Asian Civilization (3)
HIST 370* History of the Americas through the 19th Century Wars of Independence (3)
HIST 371* History of the Americas from the 19th Century Wars of Independence to the Present (3)
HIST 380* History of the Middle East (3)

List C:
A minimum of 3 units from the following:....................................... 3
HIST 301* History of Western Civilization (to 1660) (3)
HIST 302* History of Western Civilization (3)
HIST 307* History of World Civilizations to 1500 (3)
HIST 308* History of World Civilizations, 1500 to Present (3)
HIST 314* Recent United States History (3)
HIST 320* History of the United States:
African-American Emphasis (3)
HIST 321* History of the United States:
African-American Emphasis (3)
HIST 331* Women in American History (3)
HIST 344* Survey of California History:
A Multicultural Perspective (3)
HIST 360* History of African Civilizations (3)
HIST 364* Asian Civilization (3)
HIST 365* Asian Civilization (3)
HIST 370* History of the Americas through the 19th Century Wars of Independence (3)
HIST 371* History of the Americas from the 19th Century Wars of Independence to the Present (3)
HIST 373* History of Mexico (3)
HIST 380* History of the Middle East (3)
POLS 301* Introduction to Government: United States (3)
POLS 302* Introduction to Government: Foreign (3)
POLS 304* Introduction to Government: California (3)
POLS 310* Introduction to International Relations (3)

(continued on next page)
A.A.-T – History for Transfer continued

HIST 301
History of Western Civilization (to 1660) 3 Units
Prerequisite: None
Advisory: ENGWR 300
General Education: AA/AS Area V(b); CSU Area D6; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC

History of Western Civilization, 1500 to Present 3 Units
Prerequisite: None
Advisory: ENGWR 300; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D6; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC

History of Western Civilization from 1600 to the present. The course will trace the development and advancement of European nation-states from early modernization to the crises of the World Wars. In addition to political analysis, emphasis will be placed upon the ideological and socio-economical structures that developed during the last four hundred years of the 20th century. Finally, the effects of the Cold War and decolonization will also be addressed. (C-ID HIST 180)

HIST 307
History of World Civilizations to 1500 3 Units
Prerequisite: None
Advisory: ENGWR 300; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area V(b); CSU Area D6; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC

History 307 is a survey course on world civilization from c. 3000 BCE to 1500 CE. The course will trace the development of various peoples beginning with the first civilizations of Mesopotamia, India, and China to the establishment of great empires and infant nations of the world. In addition to political analysis, emphasis will be placed upon the advancement of various world cultures and social structures. Particular attention will be placed on the lives of the common people of various civilizations discussed during the four thousand, five hundred year time period. Finally, various world religions will be highlighted during the duration of the course.

HIST 308
History of World Civilizations, 1500 to Present 3 Units
Prerequisite: None
Advisory: ENGWR 300; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D6; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC

History 308 is a survey course on world civilization from 1500 to the present age. The course will trace the development of various non-western imperial powers to the European nation-states that emerged in the sixteenth century. In addition to political analysis, emphasis will be placed upon the advancement of various world cultures and social structures. Particular attention will be placed on the lives of the common people of various civilizations discussed in the designated time period. Finally, the course will cover the international consequences of European expansion and imperialism.

History

Hours: 54 hours LEC

History 301 is a survey course on Western Civilization from c. 3000 BCE to 1600 CE. The course will trace the origins, development, and advancement of European Civilization from antiquity to early modernization. In addition to political analysis, emphasis will be placed upon the socio-economical structures of various peoples discussed during the four thousand six hundred year period. Finally, the birth, growth, and later fragmentation of Christianity will be covered. (C-ID HIST 170)
History of the United States (to 1865)  

**Course Description:** 
History of the United States (to 1865) portrays America’s development from the earliest times to the present. Major topics will include origins of human society, civilizations of the Nile Valley, the peopling of the Americas, colonial development and the Westward expansion of the United States as a world power following the Second World 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.

**Prerequisites:** None  
**Advisory:** ENGWR 300  
**General Education:** AA/AS Area V(a); CSU Area D6; CSU Area F1; CSU Area F3; IGETC Area 4F  
**Course Transferable to UC/CSU**  
**Hours:** 54 hours LEC

History of the United States (1865-1945)  

**Course Description:** 
This is a survey of the development and growth of the United States from its origins to the present time. Particular emphasis will be placed upon the social and economical conditions of various minority groups, especially African Americans.

**Prerequisites:** None  
**Advisory:** ENGWR 300  
**General Education:** AA/AS Area V(a); CSU Area D6; CSU Area F1; CSU Area F3; IGETC Area 4F  
**Course Transferable to UC/CSU**  
**Hours:** 54 hours LEC

Recent United States History  

**Course Description:** 
This is a survey of the development and growth of the United States from the conclusion of World War II in 1945 to the present. Particular emphasis will be placed upon the political, economical, social, and cultural developments of the United States during the designated period. The course will also address the establishment of the United States as a world power following the Second World War. Finally, particular emphasis will center upon the social and economical conditions of various minority groups, especially African Americans.

**Prerequisites:** None  
**Advisory:** ENGWR 300  
**General Education:** AA/AS Area V(a); CSU Area D6; CSU Area F1; CSU Area F3; IGETC Area 4F  
**Course Transferable to UC/CSU**  
**Hours:** 54 hours LEC

History of the United States: African-American Emphasis  

**Course Description:** 
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.

**Prerequisites:** None  
**Advisory:** ENGWR 300  
**General Education:** AA/AS Area V(a); CSU Area D3; CSU Area D6; CSU Area F1; CSU Area F2; IGETC Area 4F  
**Course Transferable to UC/CSU**  
**Hours:** 54 hours LEC
HIST 364
Asian Civilization
3 Units
Prerequisite: None
Advisory: ENGR 300
General Education: AA/AS Area V(b); AA/AS Area I; CSU Area C2; CSU Area D2; IGETC Area 3B; IGETC Area 4
Course Transferable to CSU
Hours: 54 hours LEC
This is a survey of Asian History from the birth of civilization to 1600 C.E. With particular emphasis on East Asia, the course will evaluate the political, economical, social, and cultural developments of China, Japan, and Korea. Additional topics will include the effects of foreign interactions with peoples from India, the Middle East, and Europe.

HIST 365
Asian Civilization
3 Units
Prerequisite: None
Advisory: ENGR 300
General Education: AA/AS Area V(b); AA/AS Area I; CSU Area C2; CSU Area D2; IGETC Area 3B; IGETC Area 4
Course Transferable to CSU
Hours: 54 hours LEC
This is a survey of Asian History from 1600 C.E. to the present. With particular emphasis on China, Japan, Korea, and Vietnam, the course will evaluate the political, economical, social, and cultural effects of Western involvement in East Asia. Additional topics will include the rise of nationalism in East Asia during the Cold War, as well as China’s rising participation in world events.

HIST 370
History of the Americas through the 19th Century Wars of Independence
3 Units
Prerequisite: None
Advisory: ENGR 101 or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area V(b); CSU Area D6; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

HIST 371
History of the Americas from the 19th Century Wars of Independence to the Present
3 Units
Prerequisite: None
Advisory: ENGR 101 or eligibility for ENGR 300
General Education: AA/AS Area V(a); CSU Area D6; CSU Area F1; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

HIST 373
History of Mexico
3 Units
Prerequisite: None
Advisory: ENGR 101 or eligibility for ENGR 300
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

HIST 380
History of the Middle East
3 Units
Prerequisite: None
Advisory: ENGR 101; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area V(b); CSU Area C2; CSU Area D6; IGETC Area 3B; IGETC Area 4F
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course surveys the history of the Middle East and North Africa with emphasis on the period from the 8th century C.E. (A.D.) to the present. The course focuses on the major social, economic, political and cultural transformations of the region, while taking into account both regional and global contexts of interaction and change in a comparative format. This course will provide students with a historical understanding of the impact of European colonialism, the discovery of petroleum and its consequences, the Palestinian-Israeli conflict, and the role played by the United States in the region.

HIST 495
Independent Studies in History
1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

HIST 499
Experimental Offering in History
.5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
Honors Scholar Program

HONORS SCHOLAR PROGRAM

A course of study for academically accomplished students

Prerequisite:
Admission to Honors Program
Acceptable for credit: CSU, UC — See Counselor

Program Description

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

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 the “Preparing to Transfer” section in the front of this Catalog).

The Honors Program now offers three-unit seminars. These courses are modeled on the freshman and sophomore seminars at the University of California. They provide the same opportunities for CRC students: experience in a small, rigorous seminar that challenges them to do bold, original, and creative thinking, confront recent theory and primary research, and express themselves in classroom exchanges and critical papers. The seminars are often interdisciplinary in nature and present advanced topics outside or beyond the general curriculum. These courses are also created to satisfy specific general education requirements at CRC, California State University campuses, and the University of California.

The Honors Program encourages applications from all interested students and enrolls individuals into the program based on evidence of their potential to benefit from the Honors Seminars. We ask that students provide us with information that demonstrates their interest, motivation, preparation and potential for this form of study. Students interested in applying for membership in the Honors Program will find applications available from area offices, program faculty, or online at http://crc.losrios.edu/areas_of_study/Honors.htm.

NOTE:
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pсло

HONORS SCHOLAR PROGRAM

Students who complete 15 units or more in honors-designated courses will earn special recognition as an Honors Scholar, a distinction that may entitle the student to guaranteed transfer and scholarship opportunities at select transfer colleges and universities. Interested students should contact their counselor, the Faculty Contact, or the Vice President of Instruction and Student Learning. Courses that qualify as part of the program are listed below.

REQUIRED PROGRAM

Select 15 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGCW 480</td>
<td>Honors Seminar: Creative Writing &amp; Culture (3)</td>
</tr>
<tr>
<td>HONR 320/BUS 480</td>
<td>Honors Seminars in Business (1)</td>
</tr>
<tr>
<td>HONR 340/COMM 480</td>
<td>Honors Seminar: Political Campaign Communication (3)</td>
</tr>
<tr>
<td>HONR 350/FMS 488</td>
<td>Honors Seminar: Intro to Critical Theory (3)</td>
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<tr>
<td>HONR 352/FMS 489</td>
<td>Honors Seminar: Films of Alfred Hitchcock (3)</td>
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<tr>
<td>HONR 360/HUM 486</td>
<td>Honors Seminars in Humanities:</td>
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<td></td>
<td>• Modern Drama Live (1)</td>
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<td>• Shakespeare Live (1)</td>
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<tr>
<td>HONR 364</td>
<td>Honors Seminar: Philosophy of the Martial Arts (3)</td>
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<tr>
<td>HONR 370/SOCSC 480</td>
<td>Honors Seminars in Social Science (1)</td>
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<tr>
<td>HONR 382/GEOG 481</td>
<td>Honors Seminar: Nature and Culture (3)</td>
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<tr>
<td></td>
<td>Honors Seminar in Geography (1)</td>
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<tr>
<td>HONR 384/GEOG 482</td>
<td>Honors Seminars in Mathematics:</td>
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<tr>
<td></td>
<td>• Number Theory (1)</td>
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<tr>
<td>CHEM 420</td>
<td>Organic Chemistry (5)</td>
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<tr>
<td>CHEM 421</td>
<td>Organic Chemistry (5)</td>
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<td>MATH 402</td>
<td>Calculus III (5)</td>
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<td>MATH 420</td>
<td>Differential Equations (4)</td>
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<td>MATH 410</td>
<td>Introduction to Linear Algebra (3)</td>
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<td>PHYS 421</td>
<td>Electricity and Magnetism (4)</td>
</tr>
<tr>
<td>PHYS 431</td>
<td>Heat, Waves, Light and Modern Physics (4)</td>
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</tbody>
</table>

TOTAL UNITS REQUIRED: 15

HONORS (HONOR)

HONOR 320

Honors Seminars in Business

1 Unit

Same As: BUS 480

Prerequisite: None

Course Transferable to CSU

Hours: 18 hours LEC

Honors Seminars in Business are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. In these seminars, students will study topics in the movements, trends and philosophies found in the business. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as BUS 480. This course, under either name, may be taken one time for credit.
HONOR 340
Honors Seminar: Political Campaign Communication  
3 Units  
Same As: COMM 480  
Prerequisite: None  
General Education: AA/AS Area V(b); CSU Area D7; IGETC Area 4G  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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 honors student interested in learning about political communication, rhetorical criticism, and techniques for writing for academic audiences. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as COMM 480, and only one may be taken for credit.

HONOR 350
Honors Seminar: Introduction to Critical Theory  
3 Units  
Same As: FMS 488  
Prerequisite: None  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course investigates questions of interpretation and representation in film, literature, media, and culture. Students examine contemporary critical and cultural theory, then apply these theories in analyzing a variety of texts from the Shakespearean play to the science fiction horror film. Theories introduced include, but are not limited to, semiotics, psychoanalysis, rhetorical criticism, gender theory, and postmodernism. Students intending to transfer into arts, film, literature, humanities, and cultural studies programs will find this course particularly useful in understanding the critical language of the university. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as FMS 488, and only one may be taken for credit.

HONOR 352
Honors Seminar: The Films of Alfred Hitchcock  
3 Units  
Same As: FMS 489  
Prerequisite: None  
General Education: AA/AS Area I  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This seminar studies the work of Alfred Hitchcock from the perspective of the key concepts in film theory. Students will investigate the films and criticism of one of the greatest and strangest directors, the self-styled master of suspense. This seminar takes a close reading of Hitchcock’s most important films and the most significant writing on the director’s work. For students interested in film, media, art, literature, and the humanities, the course examines Hitchcock’s visual style, thematic concerns, and directorial techniques, and introduces the major critical approaches to cinema studies. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as FMS 489, and only one may be taken for credit.

HONOR 360
Honors Seminars in Humanities  
1 Unit  
Same As: HUM 486  
Prerequisite: None  
General Education: AA/AS Area I; CSU Area C2  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 18 hours LEC  
Honors Seminars in Humanities are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. In these seminars, students will study topics in the movements, trends and philosophies found in the humanities. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as HUM 486. This course, under either name, may be taken one time for credit.

HONOR 364
Honors Seminar: Philosophy of the Martial Arts  
3 Units  
Prerequisite: None  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course provides an introduction to the philosophical views that have traditionally been associated with the practice of martial arts and explores the interplay between those views and that practice. It also provides an introduction to those contemporary philosophical issues that arise in the context of present day analytic philosophical reflection on the nature and practice of martial arts. The course thus provides the opportunity to appreciate the Eastern philosophical underpinnings of an activity that has become part of mainstream American Culture and the opportunity to experience the rigorous application of contemporary analytic academic philosophical methodology. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. Enrollment is limited to Honors Program students.

HONOR 370
Honors Seminars in Social Science  
1 Unit  
Same As: SOCSC 480  
Prerequisite: None  
General Education: AA/AS Area V(b); CSU Area D7  
Course Transferable to CSU  
See UC Limitations & Counselor  
Hours: 18 hours LEC  
Honors Seminars in Social Science are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. In these seminars, students will study topics in the movements, trends and philosophies found in the Social Sciences. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as SOCSC 480. This course, under either name, may be taken one time for credit.
HONOR 375
Honors College Composition 3 Units
Same As: ENGWR 480
Prerequisite: Eligibility for ENGWR 300 or equivalent skills demonstrated through the assessment process. Students must also be eligible for admission to the Honors Program. Advisory: ENGRD 110; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area I(b); CSU Area A2, IGETC Area 1A
Enrollment Limitation: Eligibility for the Honors Program.
Course Transferable to UC/CSU
This course offers the honors student a challenging course that will develop skills in critical thinking, reading, and writing. It asks students to critically analyze, compare, and evaluate various complex works. The course is designed to help students demonstrate, in both argumentative and expository prose, complex critical thinking, effective organization, precise diction, and sophisticated style; at least one of those essays requires research and appropriate MLA documentation. Essays written during the term will total at least 8,000 words. Throughout the course, fluency and correctness are emphasized. This course is not open to students who have successfully passed ENGWR 300 or ESLW 340. This course is the same as ENGWR 480. This course, under either name, may be taken one time for credit.

HONOR 380
Honors Seminar in Biology- Coastal Field Biology 1 Unit
Same As: BIOL 480
Prerequisite: None
General Education: AA/AS Area IV
Course Transferable to CSU
Hours: 12 hours LEC; 18 hours LAB
Honors Seminars in Biology are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. In these seminars, students will study advanced topics from the area of biology, in this case coastal field biology. Enrollment is limited to Honors students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as BIOL 480. This course, under either name, may be taken one time for credit. A field trip is required.

HONOR 382
Honors Seminar: Nature and Culture 3 Units
Same As: GEOG 481 and HUM 484
Prerequisite: None
General Education: AA/AS Area I; CSU Area C2; CSU Area D7; IGETC Area 3B; IGETC Area 4E
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as GEOG 481 and HUM 484, and only one may be taken for credit.

HONOR 383
Honors Seminar in Biology - Human Cadaver Dissection 1 Unit
Same As: BIOL 481
Prerequisite: None
General Education: AA/AS Area IV
Course Transferable to CSU
Hours: 12 hours LEC; 18 hours LAB
The Honors Seminar in Biology is a special one-unit intensive course for academically accomplished students or those with the potential for high academic achievement. In this seminar, students will study the structure of the human body through the dissection of a cadaver. Students will gain experience in dissection techniques, more fully understand relationships among body parts and discuss physiological concepts as they pertain to anatomy. Writing a detailed lab notebook is an integral part of the course. Enrollment is limited to Honors students. Details about the Honors Program can be found in the Catalog and on the CRC website. This course is the same as BIOL 481. This course, under either name, may be taken a total of one time for credit.

HONOR 384
Honors Seminar in Geography 1 Unit
Same As: GEOG 482
Prerequisite: None
General Education: AA/AS Area IV
Course Transferable to CSU
Hours: 9 hours LEC; 27 hours LAB
Honors Seminars in Geography are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. In these seminars, students will study advanced topics from the area of Geography. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as GEOG 482. This course under either name, may be taken one time for credit.

HONOR 390
Honors Seminars in Mathematics 1 Unit
Same As: MATH 480
Prerequisite: MATH 370 with a grade of “C” or better
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 18 hours LEC
Honors Seminars in Mathematics are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. In these seminars, students will study advanced topics from the area of mathematics and will be expected to do independent problem solving and present their solutions to the class. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as MATH 480. This course, under either name, may be taken one time for credit. This course will be offered in spring semester only.
HONOR 391
Honors Seminar in Mathematics -
Introduction to Mathematical Proof 1 Unit
Same As: MATH 483
Prerequisite: MATH 370 with a grade of "C" or better
Course Transferable to UC/CSU
Hours: 18 hours LEC

Honors Seminars in Mathematics are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. This particular course will study various methods of mathematical proof in a seminar setting, and will be particularly useful to students planning to study calculus, differential equations, and linear algebra. Topics include: deductive reasoning, proof by axioms, proofs of conditional and biconditional statements, proofs by contrapositive and contradiction, and proof by mathematical induction. Studies will include homework, discussions, oral presentations and lectures. Students will be expected to do independent problem solving and present their solutions to the class. Enrollment is limited to Honors Program students (see catalog). This course is the same as MATH 483. This course, under either name, may be taken one time for credit. This course will be offered in spring semester only.

HONOR 392
Honors Seminar in Mathematics -
Topics in Number Theory 1 Unit
Same As: MATH 484
Prerequisite: MATH 370 with a grade of "C" or better
Course Transferable to CSU
Hours: 18 hours LEC

Honors Seminars in Mathematics are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. This particular course will study various topics in the field of number theory in a seminar setting. Topics include: the integers and their properties; finding integer solutions to Diophantine equations (equations with more variables than equations); and cryptography (the study of how secret codes are created and broken). Studies will include homework, discussions, oral presentations and lectures. Students will be expected to do independent problem solving and present their solutions to the class. Enrollment is limited to Honors Program students (see catalog). This course is the same as MATH 484. This course, under either name, may be taken one time for credit. This course will be offered in spring semester only.

HONOR 499
Experimental Offering in Honors .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB

2014–2015 Cosumnes River College
## DEGREES

A.S.—Horticulture, Landscape Technology  
A.S.—Horticulture, Nursery Management  
A.S.—Sustainable Landscape & Irrigation Systems Design

### CERTIFICATES OF ACHIEVEMENT

- Horticulture, Landscape Technology  
- Nursery Operations  
- Sustainable Landscape and Irrigation Systems Design

### CERTIFICATES OF PROFICIENCY

- Sustainable Irrigation & Water Management Technology

See also:  
  (Listed under the Architecture Program)

### Program Description

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’s 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.

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.

### Career Opportunities

- 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 and evaluative study  
- Practical design opportunities

### DEGREE

A.S.—Horticulture, Landscape Technology  

**CODE #1146**

A diversity of professional career opportunities are available to those who wish to provide professional landscape services. Landscapers design, install, and maintain private and public outdoor spaces in which people live, work, and play. The A.S. Degree in Landscape Technology concentrates on those courses that develop the knowledge, skills, and attitudes essential to developing, constructing, and maintaining functional and sustainable landscapes, green spaces, and irrigation systems. The courses of this degree focus on sound horticultural science and principles, plant identification, proper soil development and management, sustainable landscape and irrigation design, water conservation, sustainable construction and landscape and turf maintenance practices, integrated pest management, licensing and certification, and horticultural business practices.

### REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>HORT 105</td>
<td>Pest Control Licensing or Certification</td>
<td>2</td>
</tr>
<tr>
<td>HORT 300</td>
<td>Introduction to Horticulture</td>
<td>3</td>
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<tr>
<td>HORT 301</td>
<td>Introduction to Horticulture Laboratory</td>
<td>0.5</td>
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<tr>
<td>HORT 302</td>
<td>Soils, Soil Management, &amp; Plant Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>or PLTS 310</td>
<td>Soils, Soil Management, &amp; Plant Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HORT 303</td>
<td>Integrated Pest Management</td>
<td>3</td>
</tr>
<tr>
<td>or PLTS 332</td>
<td>Integrated Pest Management</td>
<td>3</td>
</tr>
<tr>
<td>HORT 304</td>
<td>Horticulture Business Practices</td>
<td>3</td>
</tr>
<tr>
<td>HORT 320</td>
<td>Sustainable Landscape Construction</td>
<td>3</td>
</tr>
<tr>
<td>HORT 324</td>
<td>Sustainable Landscape Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>HORT 340</td>
<td>Landscape and Irrigation Graphics and Design</td>
<td>3</td>
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<tr>
<td>HORT 350</td>
<td>Landscape Irrigation</td>
<td>3</td>
</tr>
<tr>
<td>HORT 351</td>
<td>Drip and Subsurface Irrigation</td>
<td>2</td>
</tr>
<tr>
<td>HORT 353</td>
<td>Sustainable Water Management</td>
<td>3</td>
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</tbody>
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A minimum of 6 units from the following:  

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<tbody>
<tr>
<td>HORT 305</td>
<td>Plant Identification - Fall Selections</td>
<td>3</td>
</tr>
<tr>
<td>HORT 306</td>
<td>Plant Identification - Spring Selections</td>
<td>3</td>
</tr>
<tr>
<td>HORT 307</td>
<td>Plant Identification - Sustainable and CA Native Selections</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED**  

37.5

### Suggested Electives:

- ACCT 101  
- BUS 310, 330  
- ECON 302  
- HORT 498  
- POLS 301

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NOTE TO TRANSFER STUDENTS:

If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

*For information about the student learning outcomes for this program, see [www.crc.losrios.edu/pslo](http://www.crc.losrios.edu/pslo)*

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This program, see [www.crc.losrios.edu/pslo](http://www.crc.losrios.edu/pslo)
A.S.—Horticulture, Landscape Technology
continued

DEGREE
A.S. – Horticulture, Nursery Management
CODE #1147

A diversity of professional career opportunities are available to those who wish to work in the nursery industry or related field. Nurseries produce and provide the plant materials used to create outdoor spaces in which people live, work, and play. The A.S. Degree in Nursery Management concentrates on those courses that develop the knowledge, skills, and attitudes essential to producing and managing nursery crops, and managing and marketing nursery products. The courses in this degree focus on sound horticultural science and principles, proper soil and maintenance practices, and integrated pest management.

REQUIRED PROGRAM ............................................................ 38.5

Suggested Electives:
ACCT 101
ART 300
BUS 310, 330
ECON 302
HORT 498
POLS 301

Associate Degree
The Nursery Management Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

DEGREE
A.S. – Sustainable Landscape and Irrigation Systems Design
CODE #1113

A diversity of professional career opportunities are available to those who wish to serve as designers and planners of the land. Landscape designers create outdoor spaces in which people live, work, and play. Design activities range from residential and commercial properties to community facilities and regional landscapes. The A.S. Degree in Sustainable Landscape and Irrigation Systems Design concentrates on those courses that develop the knowledge, skills, and attitudes essential to creating landscape and irrigation designs that make best use of local resources including soil, water, and construction materials. The courses of this degree focus on sound horticultural science and principles, proper soil development and management, sustainable landscape and irrigation design, water conservation, sustainable landscape construction and maintenance practices, and integrated pest management.

REQUIRED PROGRAM ............................................................ 39.5

Suggested Electives:
ARCH 322
ACCT 101
ART 300
BUS 310, 330
ECON 302
HORT 498
POLS 301

Associate Degree
The Sustainable Landscape and Irrigation Systems Design Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF ACHIEVEMENT
Horticulture, Landscape Technology
CODE #1146

The certificate in Landscape Technology concentrates on those courses that develop the knowledge, skills, and attitudes essential for entry-level careers in developing, constructing, and maintaining functional and sustainable landscapes, green spaces, and irrigation systems. The courses in this certificate focus on sound horticultural science and principles, plant identification, proper soil development and management, sustainable landscape and irrigation design, water conservation, sustainable construction and landscape turf maintenance practices, and integrated pest management.

REQUIRED PROGRAM.................................................. Units
HORT 300 Introduction to Horticulture ............................. 3
HORT 301 Introduction to Horticulture Laboratory ................. 0.5
HORT 302 Soils, Soil Management, and Plant Nutrition (3) .... 3
or
PLTS 310 Soils, Soil Management, and Plant Nutrition (3)
HORT 303 Integrated Pest Management (3) ....................... 3
or
PLTS 332 Integrated Pest Management (3)
HORT 320 Sustainable Landscape Construction .................. 3
HORT 324 Sustainable Landscape Maintenance ................... 3
HORT 350 Landscape Irrigation ...................................... 3
A minimum of 6 units from the following: ........................................ 6
HORT 305 Plant Identification-Fall Selections (3)
HORT 306 Plant Identification-Spring Selections (3)
HORT 307 Plant Identification-Sustainable and CA Native Selections (3)

TOTAL UNITS REQUIRED: .................................................................. 24.5

CERTIFICATE OF ACHIEVEMENT
Nursery Operations
CODE #1115

Nurseries produce and provide the plant materials used to create outdoor spaces in which people live, work, and play. The certificate in Nursery Operations is designed to provide a well-rounded base of skills and knowledge to prepare students for entry-level employment opportunities in the nursery industry. The certificate in Nursery Operations concentrates on those courses that develop the knowledge, skills, and attitudes essential to producing, managing, and marketing nursery products. The courses in this certificate focus on sound horticultural science and principles, proper soil and media development and use, plant identification and use, plant propagation and production, nursery pest management, marketing nursery products, and greenhouse and nursery operations.

REQUIRED PROGRAM.................................................. Units
HORT 300 Introduction to Horticulture ............................. 3
HORT 301 Introduction to Horticulture Laboratory ................. 0.5
HORT 302 or PLTS 310 Soils, Soil Management, and Plant Nutrition (3) .... 3
HORT 303 or PLTS 332 Integrated Pest Management ................ 3
HORT 307 Plant Identification - Sustainable and CA Native Selections (3)

A minimum of 6 units from the following: ........................................ 6
HORT 305 Plant Identification-Fall Selections (3)
HORT 306 Plant Identification-Spring Selections (3)
HORT 307 Plant Identification - Sustainable and CA Native Selections (3)

TOTAL UNITS REQUIRED: .................................................................. 27.5

CERTIFICATE OF ACHIEVEMENT
Sustainable Landscape & Irrigation Systems Design
Code# 1970

The certificate in Sustainable Landscape and Irrigation Systems Design concentrates on those courses that develop the knowledge, skills, and attitudes essential to creating landscape and irrigation designs that make best use of local resources including soil, water, and construction materials. The courses of this certificate focus on sound horticultural science and principles, proper soil development and management, sustainable landscape and irrigation design, water conservation, sustainable landscape construction and maintenance practices, and integrated pest management.

Career Opportunities
The certificate in Sustainable Landscape and Water System Design provides a strong horticulture foundation, along with the specialized skills and technical knowledge to prepare students for employment opportunities in the field of sustainable landscape planning and irrigation design. Students who complete a certificate in Sustainable Landscape and Water Systems Design find employment in landscape and irrigation design, planning, consultation, installation management, and water systems management. Students may be self-employed, or find employment with landscape design firms, landscape contractors, landscape maintenance firms, or other related service providers. This certificate will also prepare students for advanced training and certification through industry sponsored programs such as the Irrigation Association's (IA) Certified Water Auditor and Certified Water Manager programs.

REQUIRED PROGRAM.................................................. Units
HORT 300 Introduction to Horticulture ............................. 3
HORT 301 Introduction to Horticulture Laboratory ................. 0.5
HORT 302 or PLTS 310 Soils, Soil Management, and Plant Nutrition (3) .... 3
HORT 303 or PLTS 332 Integrated Pest Management ................ 3
HORT 307 Plant Identification - Sustainable and CA Native Selections (3)
HORT 340 Landscape and Irrigation Graphics and Design ........... 3
HORT 342 Landscape Construction and Maintenance for Designers .......... 3
HORT 344 Sustainable Landscape Design ................................ 1
HORT 350 Landscape Irrigation ......................................... 3
HORT 351 Drip and Subsurface Irrigation ............................. 2

Total Units Required: .................................................................. 27.5

CERTIFICATE OF PROFICIENCY
Sustainable Irrigation & Water Management Technology
CODE #1959

The certificate in Sustainable Irrigation and Water Management Technology concentrates on those courses that develop the knowledge, skills, and attitudes essential to designing, installing, and managing water efficient irrigation systems. The courses of this certificate focus on sound principles of soil/water relationship testing and evaluation, soil development and management, proper irrigation design, irrigation systems troubleshooting and retrofitting, and irrigation systems management for water conservation.

REQUIRED PROGRAM.................................................. Units
HORT 302 Soils, Soil Management, and Plant Nutrition (3) ....... 3
HORT 303 or PLTS 310 Soils, Soil Management, and Plant Nutrition (3)
HORT 350 Landscape Irrigation ......................................... 3
HORT 351 Drip and Subsurface Irrigation ............................. 2
HORT 352 Irrigation Systems Troubleshooting and Retrofitting .... 2
HORT 353 Sustainable Water Management ......................... 3

TOTAL UNITS REQUIRED: ......................................................... 13
HORTICULTURE (HORT)

HORT 105
Pest Control Licensing or Certification
Prerequisite: HORT 300 with a grade of "C" or better
Advisory: HORT 100
Hours: 36 hours LEC
This course covers the laws, regulations, and safety requirements for individuals preparing to obtain a Qualified Applicator's Certificate (QAC) in California Department of Pesticide Regulation (CDPR) category Q or a Qualified Applicator's License (QAL) in CDPR category B. This course will also cover the requirements and process of obtaining a Maintenance Gardener Pest Control Business License. Topics include pesticide safety and application, pesticide modes of action, pesticide regulation, applicator licensing and certification, accepted standards for integrated pest management, and the methods and practices of preventing and controlling common landscape weeds, invertebrate and vertebrate pests, nematodes, and infectious and noninfectious plant diseases. Environmental concerns regarding pesticide resistance, surface and groundwater contamination, and other exposures will be covered. Field trips may be required.

HORT 299
Experimental Offering in Horticulture
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

HORT 300
Introduction to Horticulture
Prerequisite: None
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 54 hours LEC
Introduction to Horticulture is a general, entry level course into environmental horticulture with an emphasis on basic plant science, plant use and care, and the landscape and nursery industries. Topics include basic botany, cultural practices, propagation, structures and layout, pest management, planting, container gardening, plant identification, turfgrass installation and care, and a survey of career opportunities.

HORT 301
Introduction to Horticulture Laboratory
Prerequisite: None
Corequisite: HORT 300
Course Transferable to CSU
Hours: 27 hours LAB
Horticulture 301 is a companion course to Horticulture 300. This laboratory course provides students of Hort 300 with the opportunity to apply horticulture concepts and practices discussed in the Hort 300 course through hands-on activities. Field trips may be required. This is a required course for Horticulture majors, but optional for non-majors. This course should be taken concurrently with Hort 300.

HORT 302
Soils, Soil Management, and Plant Nutrition
Prerequisite: HORT 300 or PLTS 300 with a grade of "C" or better
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course provides a basic knowledge of the physical, chemical, and biological properties of soils. 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. Field trips may be required. This course is the same as PLTS 310, and only one may be taken for credit.

HORT 303
Integrated Pest Management
Prerequisite: HORT 300 with a grade of "C" or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a study of local plant pests including weeds, diseases, invertebrates, and vertebrates. It includes recognition of symptoms and causes, life cycle of the pests, host and habitat relationships, and the integrated pest management strategies and best management practices to achieve control. Field trips may be required. This course is the same as PLTS 332, and only one may be taken for credit.

HORT 304
Horticulture Business Practices
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course is a study of the business practices common and specific to the various types of horticultural enterprises. Topics include starting a small horticulture business, business structure, licensing and certification, liability and insurance, employee hiring and management practices, working with local, state, and federal agencies, identifying target markets, and marketing horticultural products and services. Field trips may be required.

HORT 305
Plant Identification-Fall Selections
Prerequisite: None
Advisory: HORT 300
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 36 hours LEC; 54 hours LAB
This course is the identification and study of the growth habits, cultural practices, and ornamental uses of landscape and indoor plants adapted to climates of California. Plants emphasized will come from the current California Association of Nurseries and Garden Centers (CANGC) and California Landscape Contractors Association (CLCA) certification exams plant lists. The focus will be on those plants best observed and studied during California’s fall and/or winter seasons.
HORT 306
Plant Identification-Spring Selections  
3 Units  
Prerequisite: None  
Advisory: HORT 300  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 36 hours LEC; 54 hours LAB  
This course is the identification and study of the growth habits, cultural practices, and ornamental uses of landscape and indoor plants adapted to climates of California. Plants emphasized will come from the current California Native Plant Society (CNPS), California Association of Nurseries and Garden Centers (CANGC), and California Landscape Contractors Association (CLCA) certification exams plant lists. The focus will be on those plants best observed and studied during California’s spring and/or summer seasons.

HORT 307
Native Selections - Sustainable and  
CA Native Selections  
3 Units  
Prerequisite: None  
Advisory: HORT 300  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course is the identification and study of the growth habits, cultural practices, and ornamental uses of California native plants, as well as plant material appropriate for sustainable landscaping. Plants emphasized will come from the current California Native Plant Society (CNPS), California Association of Nurseries and Garden Centers (CANGC), and California Landscape Contractors Association (CLCA) plant lists.

HORT 310
Nursery Practices  
3 Units  
Prerequisite: None  
Advisory: HORT 300  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
Horticulture 310 is a study and application of the principles, practices, and management of both wholesale and retail nurseries including marketing, propagation and cultural practices of herbaceous and woody plants, and business management practices required in establishing and operating a nursery.

HORT 312
Plant Propagation  
3 Units  
Prerequisite: None  
Advisory: HORT 300  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
Plant Propagation is a study and practice of the sexual and asexual reproduction of landscape plant species. The emphasis of Horticulture 312 will be on the preparation and use of propagating and planting mediums, planting, transplanting, fertilizing, propagation facility pest and disease control, propagation structure utilization and site layout. Additional topics include the maintenance of common tools and equipment, and the laws and regulations pertaining to plant propagation and nursery production.

HORT 314
Greenhouse Operations  
3 Units  
Prerequisite: HORT 300 with a grade of “C” or better  
Advisory: HORT 302, 303, 310, and 312  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course is the study of the problems and practices of commercial greenhouse operations and management including the design, construction, and use of enclosed structures to manipulate controlled environments, greenhouse crop production, integrated pest management in greenhouses, and the production and marketing of greenhouse crops. Emphasis will be placed on greenhouse structures utilized for commercial nursery crop production and retail nursery greenhouse marketing facilities. Field trips may be required.

HORT 315
Nursery Crop Production and Management  
3 Units  
Prerequisite: None  
Advisory: HORT 300, 302, 303, 310, and 312  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course covers the principles and practices of producing, growing, and managing container plant crops for sale in wholesale and retail nurseries and garden centers. Topics include advanced propagation methods, best practices for container stock production, common problems encountered when growing in containers, container production systems, growing media and media blends, container plant nutrition and fertilizer management, the nursery crop production environment, nursery irrigation and water management, integrated pest management in nursery crop production, and marketing nursery crops. Field trips may be required.

HORT 320
Sustainable Landscape Construction  
3 Units  
Prerequisite: None  
Advisory: HORT 300  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course covers the fundamentals of landscape construction, including soil preparation, paving and construction materials, hand and power tool use, turf and plant installation, plan reading, estimating, and bid preparation. It will emphasize approved traditional industry construction methods, as well as sustainable alternative and techniques. Local codes and state requirements will also be covered. This course is an initial step in preparation for the California State C-27 Landscape Contractor License exam.

HORT 324
Sustainable Landscape Maintenance  
3 Units  
Prerequisite: None  
Advisory: HORT 300  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course is a study of sustainable landscape maintenance and management of exterior and interior residential and commercial landscapes, parks, highways, and public buildings. Topics include planting and transplanting, pruning, water conservation and use, sustainable plant nutrition and soils management, integrated pest management, and the safe operation and maintenance of power equipment for the trade. Field trips may be required.
HORT 340
Landscape and Irrigation Graphics and Design 3 Units
Prerequisite: None
Advisory: HORT 300, 305, 306, or 307
Course Transferable to CSU
Hours: 54 hours LEC
Landscape graphics is the study of technical drafting skills and freehand graphics including line quality, lettering and organization as it relates to landscape design. The use of a variety of graphic skills and media will be developed along with an introduction to basic landscape design theory and practice. Field trips may be required.

HORT 341
Landscape Design 3 Units
Prerequisite: HORT 300 and 340 with grades of “C” or better
Advisory: HORT 320 and 324; HORT 305 and/or 306 and/or 307
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers the principles and elements of residential landscape design including the problem solving process, design theory and composition, functional and design uses of landscape materials, client needs and desires, and maintenance criteria. Field trips may be required.

HORT 342
Landscape Construction and Maintenance for Designers 3 Units
Prerequisite: None
Advisory: HORT 300, 302, and 340
Course Transferable to CSU
Hours: 54 hours LEC
This course covers the fundamental principles and practices of landscape construction and landscape maintenance necessary for landscape designers. Course topics include soil evaluation, preparation and management, paving and construction materials, construction details and installation practices, turf and plant installation and transplanting, pruning, sustainable plant nutrition and fertilizing, basic integrated pest management practices, construction and maintenance estimating, and bid preparation. This course will emphasize approved traditional industry construction and maintenance methods, as well as sustainable alternatives and techniques. Local codes and state requirements will also be covered. Field trips may be required.

HORT 344
Sustainable Landscape Design 1 Unit
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC
This course is designed to provide the student with increased knowledge and understanding in the area of Sustainable Landscape Design. This course will examine the fundamental principles of sustainability, and how the principles can be utilized to guide the designer in the development of ornamental landscapes. An emphasis will be placed on the relationships between environmental conditions, soils, water, plant materials, and construction materials and how these relationships guide the landscape development process. Additional topics will include construction material selection, plant material selection, soil preparation, sustainable landscape maintenance, and pest management for sustainable landscapes.

HORT 345
Landscape CAD Design 3 Units
Prerequisite: HORT 341 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is an introduction to computer-aided landscape design and drafting utilizing Computer Aided Drafting and Design (CADD) software to produce professional-quality landscape designs for residential and commercial sites. Design emphasis includes site plan development, landscape planting, and landscape irrigation plans, with the generation of materials lists based on the design created for the site.

HORT 350
Landscape Irrigation 3 Units
Prerequisite: HORT 300 with a grade of “C” or better
Advisory: HORT 340
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course prepares students to design, install and maintain a water efficient landscape irrigation system. Topics include water supply, basic hydraulics, component identification and terminology, system layout, pipe sizing, water application head types, valves, and controllers. Field trips may be required.

HORT 351
Drip and Subsurface Irrigation 2 Units
Prerequisite: HORT 350 with a grade of “C” or better
Advisory: HORT 340
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course prepares students to design, install and maintain surface and subsurface drip irrigation systems. Topics include component identification and terminology, system layout, pipe sizing, water application equipment. Field trips may be required.

HORT 352
Irrigation Systems Troubleshooting & Retrofitting 2 Units
Prerequisite: HORT 350 with a grade of “C” or better
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course prepares students to evaluate existing irrigation systems, validate system efficiency, and modify systems as appropriate to achieve optimum water efficiency. Topics will include water efficient application devices, sprinkler head layout and spacing, changing and resetting existing sprinkler heads, valve and controller wire tracing and replacement, system filtering, re-piping options, using battery operated controllers and programmers, and smart controllers and environmental sensor technology. Field trips may be required.
HORT 353  
**Sustainable Water Management**  
3 Units  
Prerequisite: HORT 350 with a grade of “C” or better  
Advisory: HORT 300  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course prepares students to maintain and manage water efficient landscape irrigation systems utilizing the latest irrigation technology including water efficient application equipment, traditional and smart controllers, and environmental sensors. Topics include the review of the current California State Model Water Efficient Landscape Ordinance, inspection and performance assessment of irrigation systems, determining sprinkler precipitation and consumption rates, calculating water budgets, assessing soil/water relationships of the landscape, installing smart controllers and environmental sensors, controller programming, developing water schedules, and irrigation system management for efficient water use. Field trips may be required.

HORT 495  
**Independent Studies in Horticulture**  
1-3 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54 hours LEC; 54 hours LAB  
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

HORT 498  
**Work Experience in Horticulture**  
1-4 Units  
Prerequisite: None  
General Education: AA/AS Area III(b)  
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Horticulture.  
Course Transferable to CSU  
Hours: 300 hours LAB  
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

HORT 499  
**Experimental Offering in Horticulture**  
.5-4 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 18 hours LEC; 54 hours LAB
Program Description

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
- Awareness of skills and competencies required for effective and competitive workplace performance
- Addresses balanced lifestyle concepts and their relationship to job satisfaction and work/life success
- Support strategies for those with learning disabilities

NOTE:
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

HUMAN CAREER DEVELOPMENT (HCD)

HCD 89
Study Strategies Lab .5-1 Units
Prerequisite: None
Hours: 54 hours LAB
This course will provide non-traditional instructional support for students with disabilities who are enrolled in other college classes. Graded on a credit/no credit basis. This is an open-entry, open-exit class that can be taken for 0.5-1.0 units.

HCD 110
Building Foundations for Success 3 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Hours: 54 hours LEC
This course provides success strategies and support services to entry level students. The strategies and support services are threaded through three critical areas that enhance student success: academic skills, personal life management, and educational navigation.

HCD 112
College Survival .25-1 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Hours: 18 hours LEC
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.

HCD 122
Study Skills 1 Unit
Prerequisite: None
General Education: AA/AS Area III(b)
Hours: 18 hours LEC
This course covers specific study skills strategies. It provides the opportunity to analyze attitudes toward studying, and current study skill habits. Topics include specific learning styles, strategies for time management, goal setting, note-taking, memory improvement, reading skills, and how to prepare for, and take exams.
HCD 132
Career Exploration 1 Unit
Prerequisite: None
General Education: AA/AS Area III(b)
Hours: 18 hours LEC
Students 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 search skills. Topics covered include assessment of values, skills, interests, and personality factors relevant to career and life planning. Student will gain insight into the relationship between career and academic/educational planning. Career assessments may be required.

HCD 299
Experimental Offering in Human/Career Development .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

HCD 310
College Success 3 Units
Prerequisite: None
Advisory: ENGRD 110 and ENGW 101
General Education: AA/AS Area III(b); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is designed to assist students in obtaining 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. Campus resources and information competency will also be covered. It is highly recommended for first time college students however continuing students also benefit from this course. The course may be offered for specific populations. A field trip may be required.

HCD 320
Skills for Online Student Success 1 Unit
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC
This course is designed to familiarize students with the skills required to succeed in an online course. Students will explore how to use various Internet tools to effectively learn in an online environment. Topics include online course equipment needs; using a word processor to support class assignments; sending email attachments; effective use of discussion groups, email, and synchronous chat sessions; researching on the Internet, evaluating Internet sources; working collaboratively online. This course is graded on a pass/no pass basis.

HCD 340
Job Search Portfolio Development 1 Unit
Prerequisite: None
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 18 hours LEC
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.

HCD 346
Career and Workforce Skills 1 Unit
Prerequisite: None
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 18 hours LEC
This course provides students with opportunities to develop or add marketable skills in preparation for employment and assists students in learning about the world of work. Course content will include understanding the application of education to the workforce and developing workplace (soft) skills identified by the Secretary's Commission on Achieving Necessary Skills (SCANS) Competencies as well as by local employers. The content of this course covers the orientation materials and meets the orientation requirement for Work Experience 198, 298 and 498 at Cosumnes River College.

HCD 362
Work/Life Management 2 Units
Prerequisite: None
Course Transferable to CSU
Hours: 36 hours LEC
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.

HCD 495
Independent Studies in Human Career Development 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of "Special Studies" for full details of Independent Studies.

HCD 499
Experimental Offering in Human/Career Development .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB

HCD 1000
Supervised Tutoring 0 Units
Prerequisite: None
Hours: 50 hours LAB
This course offers individualized tutoring designed to assist students to increase their success in college courses. Students may enroll for support of more than one college course per semester. Content will vary depending upon the adjunct course. Attention will be given to essential study skills and utilization of campus learning resources. May be repeated in subsequent semesters.
Human Services
Student Services & Counseling

DEGREE
A.A. – Human Services, General
A.A. – Chemical Dependency Studies

CERTIFICATE OF ACHIEVEMENT
Human Services, General
Chemical Dependency Studies

Program Description
This CRC program prepares students for employment as para-professionals with agencies such as youth group homes, youth and family services agencies, schools, probation, welfare, and mental health departments.

Alcohol/Drug Counseling Studies Program Approval has been granted to CRC by the California Foundation for Advancement of Addiction Professionals (CFAAP). CRC has met all of the requirements as set forth by CAADAC and the Education Board (CFAAP).

Career Opportunities
Peer Support Group Facilitator
Youth Group Home Worker
Family, Welfare, and Health Agencies Worker
Consumer Consultant
County or State Eligibility Worker
Conflict Containment Worker

Highlights
- Individual and group counseling
- Interviews with employers
- Employment training including resumes, cover letters, and interviews

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.A. – Human Services, General
Code #1152

This degree is designed for persons who are seeking careers as youth group home workers, family welfare and health agencies workers, county or state eligibility workers, and other para-professional positions. Graduates will have a broad range of human services skills, including group counseling, client interviewing, communication, problem solving, and employment. This degree is designed for persons who are seeking careers as youth group home workers, family welfare and health agencies workers, county or state eligibility workers, and other para-professional positions. Graduates will have a broad range of human services skills, including group counseling, client interviewing, communication, problem solving, and employment.

REQUIRED PROGRAM............................................................................. UNITS
HSER 300 Introduction to Human Services ........................................ 3
HSER 302 Introduction to Psychology of Human Relations ............... 3
HSER 350 Employment Skills in Human Services ............................. 3
HSER 360 Techniques of Interviewing and Counseling ..................... 3
HSER 364 Techniques of Group Counseling ....................................... 4
PSYC 300 General Principles .......................................................... 3
HSER 362 Practices in Human Services ............................................. 3
HSER 498 Work Experience in Human Services ................................ 1-4
6
A minimum of 6 units from the following: ...................................... 6
SOC 321 Race, Ethnicity and Inequality in the United States (3)
PSYC 320 Social Psychology (3)
SOC 300 Introductory Sociology (3)
Suggested Electives:
BUS 100 English for the Professional
BUS 310 Business Communications
CISA 305 Beginning Word Processing
CISA 315 Introduction to Electronic Spreadsheets
CISA 330 Desktop Publishing
CISA 340 Presentation Graphics
COMM 301 Introduction to Public Speaking
COMM 325 Intercultural Communication
HEED 300 Health Science
PSYC 330 Introductory Statistics for the Behavioral Sciences
PSYC 360 Psychology of Women
SOC 301 Social Problems
SOC 310 Marriage and the Family

TOTAL UNITS REQUIRED ....................................................................29-32

1 Students must complete a minimum of 108 internship hours for HSER 498.

Associate Degree
The Human Services, General Associate in Arts (A.A.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
DEGREE
A.A. – Chemical Dependency Studies
Code #1988

This degree is designed for persons who are seeking careers as youth group home workers, family welfare and health agencies workers, county or state eligibility workers, and other para-professional positions. Graduates will have a broad range of human services skills, including group counseling, client interviewing, communication, problem solving, and employment. This degree is designed for persons who are seeking careers as youth group home workers, family welfare and health agencies workers, county or state eligibility workers, and other para-professional positions. Graduates will have a broad range of human services skills, including group counseling, client interviewing, communication, problem solving, and employment. This degree is designed for persons who are seeking careers as youth group home workers, family welfare and health agencies workers, county or state eligibility workers, and other para-professional positions. Graduates will have a broad range of human services skills, including group counseling, client interviewing, communication, problem solving, and employment.

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TOTAL UNITS REQUIRED: 38-41

1 Students must complete a minimum of 255 internship hours for HSER 498.

Associate Degree

The Chemical Dependency Studies Degree Associate in Arts (A.A.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Human Services, General
Code #1152

This degree is designed for persons who are seeking careers as youth group home workers, family welfare and health agencies workers, county or state eligibility workers, and other para-professional positions. Graduates will have a broad range of human services skills, including group counseling, client interviewing, communication, problem solving, and employment. This degree is designed for persons who are seeking careers as youth group home workers, family welfare and health agencies workers, county or state eligibility workers, and other para-professional positions. Graduates will have a broad range of human services skills, including group counseling, client interviewing, communication, problem solving, and employment.

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A minimum of 6 units from the following:

SOC 321 Race, Ethnicity and Inequality in the United States (3)
PSYC 320 Social Psychology (3)
SOC 300 Introductory Sociology (3)

TOTAL UNITS REQUIRED: 29-32

1 Students must complete a minimum of 108 internship hours for HSER 498.

CERTIFICATE OF ACHIEVEMENT
Chemical Dependency Studies
Code #1988

This degree is designed for persons who are seeking careers as youth group home workers, family welfare and health agencies workers, county or state eligibility workers, and other para-professional positions. Graduates will have a broad range of human services skills, including group counseling, client interviewing, communication, problem solving, and employment.

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TOTAL UNITS REQUIRED: 38-41

1 Students must complete a minimum of 255 internship hours for HSER 498.
HUMAN SERVICES (HSER)

HSER 300
Introduction to Human Services  3 Units
Prerequisite: None
Advisory: Eligibility for ENGWR 300 or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU
Hours: 54 hours LEC
This course is a comprehensive overview of the field of Human Services in private and public agencies. This course includes learning of agency functions and worker activities through reading, class discussion, and class speakers. The emphasis of this course is understanding the roles and skills of associate professionals such as health workers, activity directors for the elderly, and adolescent and child welfare assistants.

HSER 302
Introduction to Psychology of Human Relations  3 Units
Prerequisite: None
General Education: AA/AS Area II(b); CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC
This course is an introduction to attitudes, values, and methods that enhance communication skills in human relations. It is required for all students in the Human Services major and open to all students.

HSER 304
Introduction to Counseling Children  3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
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.

HSER 340
Introduction to Chemical Dependency  3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
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.

HSER 341
Physiology and Pharmacology: Alcohol & Other Drugs  3 Units
Prerequisite: HSER 340 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course is a study of the chemical composition of alcohol, and the mechanism of action of alcohol and other psychoactive drugs in the human body including opiates, stimulants, depressants, psychotherapeutics, and psychedelics. The physiological and psychological mechanisms associated with tolerance, habituation, and withdrawal that occur during the addiction phase of drug use will be studied.

HSER 342
Alcoholism: Intervention, Treatment & Recovery  3 Units
Prerequisite: HSER 341 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This course is a study and evaluation of techniques used in the treatment of chemical dependency. Topics include intervention, individual and group counseling, detoxification, twelve-step programs, therapeutic communities, and aftercare programs.

HSER 350
Employment Skills in Human Services  3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course is an introduction to interviewing and counseling with adults and children; family system dynamics; family and drug interventions; crisis intervention training; court mandated reporting laws; code of ethics and conduct; and laws pertaining to counseling minors and other client populations within the Human Services field.

HSER 360
Techniques of Interviewing and Counseling  3 Units
Prerequisite: HSER 300 and 302 with grades of “C” or better
Advisory: HSER 350; HSER 300 and concurrent enrollment in HSER 362.
Course Transferable to CSU
Hours: 54 hours LEC
This course is a survey of effective interviewing and counseling techniques as applied to the paraprofessional experiences of counselor aides, group counselor aides, mental health workers, social service technicians, case management workers, and other human service related fields. This course is an integral part of the Human Services curriculum.

HSER 362
Practices in Human Services  3 Units
Prerequisite: None
Corequisite: HSER 360 and 498
Course Transferable to CSU
Hours: 54 hours LEC
This course provides advanced study and lecture of the helping profession in settings that include: public and/or private agencies that provide mental health services; corrections and rehabilitation; alcohol and other drugs; and child/adolescent treatment services. This is a lecture-based course that integrates both the theory and concepts of the helping profession, as well as discussion of the practical application of experiences in the field. Student evaluation is competency-based.
HSER 364  
Techniques of Group Counseling  
4 Units  
Prerequisite: HSER 350 and 360 with grades of “C” or better  
Corequisite: HSER 362  
Course Transferable to CSU  
Hours: 54 hours LEC; 54 hours LAB  
This course provides an overview of basic group counseling and facilitation skills including ethical issues as used by Human Services paraprofessionals. Topics explored will include communication skills within group dynamics, theories of group counseling, best practices guidelines and diversity issues. Laboratory exercises will include group work with outside groups and evaluation methods.

HSER 494  
Topics in Human Services  
.5-4 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 72 hours LEC  
This course is an 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.

HSER 495  
Independent Studies in Human Services  
1-3 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54 hours LEC; 54 hours LAB  
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

HSER 498  
Work Experience in Human Services  
1-4 Units  
Prerequisite: None  
General Education: AA/AS Area III(b)  
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Human Services.  
Course Transferable to CSU  
Hours: 300 hours LAB  
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.
DEGREE
A.A.—Interdisciplinary Studies, Humanities
(See Interdisciplinary Studies)

Program Description
This program offers an interdisciplinary approach to the study of classical, modern, American and non-Western humanities. Cultural understanding and sensitivity are fostered by examining arts, philosophy, religion, politics and social events in cultural context.

CRC offers an A.A. Degree in Interdisciplinary Studies, Humanities. Students interested in pursuing a degree in Humanities can find further information in the Interdisciplinary Studies Program.

Career Opportunities
Educator  Museum Curator
Government  Artist
Public Relations  Journalism
Law  Writer

Some Career Opportunities may require more than two years of college study.

Highlights
- Talented faculty includes widely traveled scholars.
- A Liberal Arts approach providing an excellent interdisciplinary foundation for transfer to Humanities, History, Art History, Philosophy and Music programs as well as American, Ethnic and Women’s Studies.

NOTE TO TRANSFER STUDENTS:
Schools can vary widely on the courses that they require for a given major. It is important that you meet with a CRC counselor to select and plan course work based on the most recent transfer information.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

HUMANITIES (HUM)

HUM 300
Classical Humanities  3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

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.

HUM 301
Introduction to the Humanities  3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

This is a non-chronological course that introduces students to the Humanities and the Arts. Emphasis is placed on appreciation. Students develop the tools necessary to analyze and appreciate masterworks from diverse cultures and time periods.

HUM 310
Modern Humanities  3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

This 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.

HUM 320
Asian Humanities  3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC

The focus of the course is on ancient Indian, Chinese and Japanese cultures 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.
HUM 324
Global Islam: Culture and Civilization 3 Units
Prerequisite: None
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

HUM 331
Latin American Humanities 3 Units
Prerequisite: None
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This interdisciplinary course focuses on understanding the cultures, societies, economics, politics and artistic expressions of Mexico, Central America and South America. The quest for understanding culture includes an exploration of literature, art, architecture, music, theatre, history, philosophy, politics, race, gender, and class. Emphasis is placed on Pre-Contact, Post-Conquest and Colonial, Post-Independence, Contemporary and Diasporic Latin American humanistic expressions of culture.

HUM 332
American Humanities 3 Units
Prerequisite: None
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course examines ideas and values about the American experience in the 20th century by analyzing the literature, art, music, philosophy and history of the past 100 years. The course draws upon the arts of African American, Native American, Asian American, Anglo and Latino cultures as avenues for understanding issues of race, ethnicity, class, and gender as they intersect with mainstream American values in the past 100 years.

HUM 486
Honors Seminars in Humanities 1 Unit
Same As: HONOR 360
Prerequisite: None
General Education: AA/AS Area I; CSU Area C2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 18 hours LEC
Honors Seminars in Humanities are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. In these seminars, students will study topics in the movements, trends and philosophies found in the humanities. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as HONOR 360. This course, under either name, may be taken one time for credit.

HUM 495
Independent Studies in Humanities 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

HUM 499
Experimental Offering in Humanities .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
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. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as GEOG 481 and HONOR 382, and only one may be taken for credit.
Interdisciplinary Studies

Humanities & Social Science

DEGREE

A.A.—American Studies
A.A.—Ethnic Studies
A.A.—Humanities
A.A.—Women’s Studies

Program Description

This CRC major is intended for students who wish a general background across several academic disciplines at the community college level. Several areas of interest are offered, but all are intended to supply the student with an interdisciplinary foundation for further study and an overview of the interest 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 Opportunities

Religious Service
Research
Law
Attorney
Foreign Service
Social Worker
Employment Counselor
Counselor

Human Service Careers
Teacher
Administrator
Historian
Archivist
Public Relations Consultant
Probation Officer

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

Highlights

- A valuable foundation for a variety of career or transfer opportunities
- Diversified faculty
- Overview of theoretical and cultural principles
- Interdisciplinary approach to materials that are normally taught in isolation. The student can design a program of study that more closely reflects their interests

NOTE TO TRANSFER STUDENTS:

If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE

A.A.—Interdisciplinary Studies, American Studies

CODE #1158

REQUIRED PROGRAM............................................................... Units
15 units selected from:......................................................... 15
(no more than one course selected from each group)
(a.) Anthropology 334;
(b.) English Literature 320, 321, 330;
(c.) History 312, 313, 314, 320, 321, 331;
(d.) Humanities 332;
(e.) Political Science 301;
(f.) Psychology 360;
(g.) Social Science 325, 330;
(h.) Sociology 300, 301, 321

Six (6) units selected from:..................................................... 6
(no more than one course selected from each group)
(a.) Business 300;
(b.) History 301, 302;
(c.) Humanities 310;
(d.) Philosophy 300, 338

TOTAL UNITS REQUIRED .................................................... 21

Associate Degree

The Interdisciplinary Studies, American Studies Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

DEGREE

A.A.—Interdisciplinary Studies, Ethnic Studies

CODE #1159

REQUIRED PROGRAM............................................................... Units
Sociology 321; Race, Ethnicity and Inequality in the U.S. ............... 3
Nine (9) units selected from:............................................... 9
(no more than one course from each group)
(a.) Anthropology 334
(b.) English Literature 330
(c.) History 320, 321
(d.) Social Science 325, 330

Nine (9) units selected from:............................................... 9
(no more than one course from each group)
(a.) Business 300;
(b.) English Literature 320, 321;
(c.) History 312, 313, 314, 320, 321, 331
(d.) Humanities 332;
(e.) Philosophy 350;
(f.) Political Science 301;
(g.) Psychology 360;
(h.) Sociology 300, 301

TOTAL UNITS REQUIRED .................................................... 21

Associate Degree

The Interdisciplinary Studies, Ethnic Studies Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
**DEGREE**

**A.A.—Interdisciplinary Studies, Humanities**

**CODE #1160**

**REQUIRED PROGRAM** .......................................................... Units

A minimum of 9 units from the following: ........................................ 9
HUM 300 Classical Humanities (3)
HUM 310 Modern Humanities (3)
PHIL 300 Introduction to Philosophy (3)

A minimum of 12 units from the following: ......................................... 12
ARTH 300 Introduction to Art (3)
ENGCW 400 Creative Writing .......................................................... 3
or ENGLT 310 English Literature (3)
or ENGLT 311 English Literature (3)
or ENGLT 320 American Literature (3)
or ENGLT 321 American Literature (3)
or ENGLT 330 African American Literature (3)
or ENGLT 340 World Literature (3)
or ENGLT 341 World Literature (3)
or HUM 320 Asian Humanities ......................................................... 3
or HUM 324 Global Islam: Culture and Civilization (3)
or MUFHL 300 Introduction to Music (3)
or MUFHL 310 Survey of Music History and Literature (3)
or MUFHL 311 Survey of Music History and Literature (3)
or PHIL 310 Introduction to Ethics ..................................................... 3
or PHIL 320 Logic and Critical Reasoning (3)
or PHIL 338 Contemporary Philosophy (3)
or PHIL 350 Philosophy of Religion (3)
TA 300 Introduction to the Theatre .................................................... 3

**TOTAL UNITS REQUIRED** ...................................................... 21

1 No more than one course from each group (e.g. no more than one English course).

**Associate Degree**

The Interdisciplinary Studies, Humanities Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

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**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
- Behavior, Feelings and Experience
- 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: ......................................................... 9
English Literature 360
History 331
Psychology 356, 360

Twelve (12) units selected from: .................................................... 12
(no more than one course from each group)
(a.) Anthropology 334;
(b.) Business 300;
(c.) English Literature 310, 311, 320, 321, 330, 340, 341, 360;
(d.) History 312, 313, 314, 320, 321, 331;
(e.) Humanities 332;
(f.) Philosophy 310, 320, 338;
(g.) Political Science 301;
(h.) Psychology 356, 360;
(i.) Social Science 325, 330;
(j.) Sociology 300, 301, 321

**TOTAL UNITS REQUIRED** ...................................................... 21

**Associate Degree**

The Interdisciplinary Studies, Women's Studies Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
INTERDISCIPLINARY STUDIES (INDIS)

INDIS 299
Experimental Offering in Interdisciplinary Studies .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

INDIS 310
Mathematics, Computer Information Science, Engineering and Science Achievement .5 Unit
Prerequisite: None
Course Transferable to CSU
Hours: 9 hours LEC
This course introduces the student to MESA and to the skills needed for academic success in mathematics, computer information science, engineering, and science. The course covers college resources 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 calculus-based major (biology, computer science, chemistry, engineering, mathematics, physics, etc.). This is the first 1/2 unit of a 1 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. (INDIS 311 or 312 complete the combination.) This course is graded on a Pass/No-Pass basis only.

INDIS 311
Academic Skills for a Career in Engineering, Computer Information Science, Mathematics, Physics and .5 Unit
Prerequisite: None
Advisory: INDIS 310
Course Transferable to CSU
Hours: 9 hours LEC
This course introduces the MESA student to academic skills and career exploration needed for advanced study toward a career in Biology, Chemistry, and related fields - including dentistry, medicine, pharmacy, and veterinary medicine. This course will provide an overview of careers in Biology, Chemistry, and related fields, including the education, type of work conducted by professionals, and employment opportunities. The course is the second 1/2 unit of a 1 unit package of courses (see INDIS 310) that will provide academic and career support to MESA students. This course is graded on a pass/no-pass basis only.

INDIS 312
Academic Skills for a Career in Chemistry, Biology and Related Disciplines .5 Unit
Prerequisite: None
Course Transferable to CSU
Hours: 9 hours LEC
This course introduces the MESA student to academic skills and career exploration needed for advanced study toward a career in Biology, Chemistry, and related fields - including dentistry, medicine, pharmacy, and veterinary medicine. This course will provide an overview of careers in Biology, Chemistry, and related fields, including the education, type of work conducted by professionals, and employment opportunities. The course is the second 1/2 unit of a 1 unit package of courses (see INDIS 310) that will provide academic and career support to MESA students. This course is graded on a pass/no-pass basis only.

INDIS 313
Freshman Seminar 3 Units
Prerequisite: None
General Education: AA/AS Area II(b); CSU Area E
Course Transferable to CSU
Hours: 54 hours LEC
The purpose of this course is to assist new college students in achieving academic success. Topics covered will include discipline specific academic language and culture, the value of a college education, problem solving strategies, the use of technology in college, academic integrity, campus resources and services, and life during and after college.

INDIS 350
Life and Culture in Study Abroad 1-3 Units
Prerequisite: None
Enrollment Limitation: The student must complete the pre-enrollment process into the Los Rios Community College District Study Abroad program.
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed to allow students to acquire a level of global competence while enrolled in the Los Rios Study Abroad program. Global competence is a continuing process of acquiring specific economic, historical, and geo-political knowledge which support the intercultural communication skills and authentic lived experiences that allow a person to function in another culture, and result in attitudes of cultural appreciation and interdependence. While participating in a specific Study Abroad program the student will have opportunities to study and generally survey the host country's historical, cultural, and geopolitical influences, as well as the societal structures to develop an understanding and appreciation of the host culture as different from U.S. American culture.

INDIS 499
Experimental Offering in Interdisciplinary Studies .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.A.-T — Journalism for Transfer
A.A. — Journalism

See also:
Desktop Publishing
(Computer Information Science Program)

Program Description
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 Opportunities
Journalist 
Newspaper Reporter
Magazine Editor 
Editor
Columnist 
Desktop Publishing Specialist
Public Information Officer 
Web Writer/Editor/Producer
Broadcast News Writer 
Broadcast News Producer

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. The newspaper showcases students' work in writing, photography, editing, graphic illustration, and publication design.

• Hands-on experience producing the college newspaper's award-winning website. The website allows students to publish breaking news, showcase photo galleries, and post audio and video clips to accompany stories.

• 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 to qualify for scholarships.

• Opportunities for internships at newspapers, magazines, broadcast television stations, and public relations firms.

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate's degree in this major may be different from the requirements needed for the bachelor's degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.A.-T – Journalism for Transfer
Code #1986

Note to Transfer Students:
The Journalism for Transfer A.A.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 310</td>
<td>3</td>
</tr>
<tr>
<td>or RTVF 300</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 300</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 410</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective List A:
A minimum of 3 units from the following: 3
JOUR 351
JOUR 411

Elective List B:
A minimum of 2 courses from the following: 6-7
JOUR 320*
COMM 311*
COMM 363*
ECON 302*
éCON 304*
ENGWR 302*
PHOTO 302
POLS 301*
POLS 302*
STAT 300*

TOTAL UNITS REQUIRED: 18-19

DEGREE TOTAL (INCLUDING GE): 60

* Major courses which also fulfill a transfer General Education (GE) requirement ("double-counting"). Please note that there are limitations on double-counting — consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

Associate in Arts in Journalism for Transfer Degree
The Associate in Arts in Journalism for Transfer (A.A.-T) degree may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.
## JOURNALISM (JOUR)

### JOUR 299
**Experimental Offering in Journalism**
- **Units:** .5-4
- **Prerequisite:** None
- **Hours:** 18 hours LEC; 54 hours LAB

### JOUR 300
**Newswriting and Reporting**
- **Units:** 3
- **Prerequisite:** None
- **Advisory:** Eligibility for ENGWR 300
- **General Education:** AA/AS Area II(b)
- **Course Transferable to CSU**
- **Hours:** 54 hours LEC

Introductory course in basic news writing 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 reporting practices. (C-ID JOUR 110)

### JOUR 301
**Advanced Newswriting and Reporting**
- **Units:** 3
- **Prerequisite:** JOUR 300 with a grade of “C” or better
- **Advisory:** ENGWR 300
- **Course Transferable to CSU**
- **Hours:** 54 hours LEC

This course focuses on interpretive news writing with emphasis on public affairs, specialized reporting, mastery of fundamental reporting techniques, an introduction to feature and editorial writing, and an introduction to the tools of multimedia reporting.

### JOUR 310
**Mass Media and Society**
- **Units:** 3
- **Same As:** RTVF 300
- **Prerequisite:** None
- **General Education:** AA/AS Area V(b); CSU Area D7; IGETC Area 4J
- **Course Transferable to UC/CSU**
- **Hours:** 54 hours LEC

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. This course is the same as RTVF 300, and only one may be taken for credit. (C-ID JOUR 100) (C-ID JOUR 100)

### JOUR 320
**Race and Gender in the Media**
- **Units:** 3
- **Prerequisite:** None
- **General Education:** AA/AS Area V(b); AA/AS Area VI; CSU Area D3; IGETC Area 4C
- **Course Transferable to UC/CSU**
- **Hours:** 54 hours LEC

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.
JOUR 330
Computer Familiarization  2 Units
Same As: CISC 302
Prerequisite: None
Advisory: BUSTEC 302
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 36 hours LEC
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, database software, email and the Internet will be emphasized. Students will be reading and interpreting written and oral instructions of a technical nature. This course is the same as CISC 302, and only one may be taken for credit. See Cross-Listed Courses in the catalog.

JOUR 335
Introduction to Desktop Publishing  2 Units
Same As: CISA 330
Prerequisite: None
Advisory: JOUR 330; CISC 302 or 310; and CISA 305
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course provides an overview of desktop publishing (DTP) and a major desktop publishing application program. It includes page layout skills needed to produce newsletters, brochures, flyers, reports, and marketing material on the computer. Additionally it covers importing graphics and text, using palette menus, layers, master pages, and working with graphic and text frames.

JOUR 336
Intermediate Desktop Publishing  2 Units
Same As: CISA 331
Prerequisite: CISA 330 or JOUR 335 with a grade of “C” or better
Course Transferable to CSU
Hours: 27 hours LEC; 27 hours LAB
This course builds upon previous desktop publishing software concepts and study. Topics include working with color, applying styles, importing and linking graphics, tabs and tables, and working with transparency effects. It also covers producing long documents and book features, output and exporting to PDF format, and creating interactive documents for online use. This course is the same as CISA 331, and only one may be taken for credit.

JOUR 340
Writing for Publication  3 Units
Same As: ENGWR 330
Prerequisite: ENGWR 300, ENGWR 480, HONOR 375, or JOUR 300 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
This is an introductory course in writing nonfiction for publication. Emphasis will be on developing magazine articles that sell; finding ideas; analyzing magazines; writing query letters; researching and interviewing; organizing, writing and illustrating articles. Individual and class criticism of student work will be featured. This course is the same as ENGWR 330, and only one may be taken for credit.

JOUR 351
Public Relations Writing and Media Techniques  3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course is a study of the practice of public relations (PR); planning PR campaigns; preparing promotional messages for newspapers, magazines, radio, television, and online; using public relations techniques in business, education, entertainment, social service and other fields. (C-ID JOUR 150)

JOUR 355
Media Writing  1 Unit
Prerequisite: None
Advisory: ENGWR 101 with a grade of “C” or better; or eligibility for ENGWR 300 as demonstrated through the assessment process.
Course Transferable to CSU
Hours: 18 hours LEC
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, websites, and other visual presentations.

JOUR 400
College Newspaper Production  2-3 Units
Prerequisite: None
Advisory: Completion of or concurrent enrollment in one of the following: JOUR 300, 335, 340, 404 or PHOTO 302.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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, photographers, and online producers for the college newspaper.

JOUR 404
Editing and Production  3 Units
Prerequisite: None
Corequisite: JOUR 405, 420, or 421
Course Transferable to CSU
Hours: 54 hours LEC
This course includes instruction and practice in editing and designing newspapers, magazines, technical reports, and online publications. Topics include copy editing, headline writing, page make-up and design, and production methods. Editorial writing, press ethics, and press law are also discussed.

JOUR 405
Publications Production Skills Lab  0.5-3 Units
Prerequisite: Concurrent enrollment in JOUR 400 or 404.
Course Transferable to CSU
Hours: 162 hours LAB
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.
JOUR 410
College Media Production I 3 Units
Prerequisite: ENGWR 101 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Advisory: Completion of or concurrent enrollment in one of the following: JOUR 300, 335, 404 or PHOTO 302.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course focuses on writing and producing student news media, using the school newspaper The Connection and its online companion www.thecrcconnection.com, as a practical laboratory that produces a journalistic product for distribution to a college-wide audience. Students will work primarily in one of the following areas: researching, writing, and editing articles for the two publications; taking photographs and creating graphic illustrations; developing multimedia stories; or designing pages. Ethical and legal aspects of communication are also covered. (C-ID JOUR 130)

JOUR 411
College Media Production II 3 Units
Prerequisite: JOUR 410 with a grade of “C” or better
Advisory: Completion of or concurrent enrollment in one of the following: JOUR 300, 335, 404 or PHOTO 302.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course builds on experience gained in Journalism 410. During this second-semester course, students focus on intermediate writing and production skills, using the school newspaper The Connection and its online companion www.thecrcconnection.com, as a practical laboratory. Students will work in at least two of the following areas: researching, writing, and editing articles for the two publications; taking photographs and creating graphic illustrations; developing multimedia stories; or designing pages. Ethical and legal aspects of communication are also covered. (C-ID JOUR 131)

JOUR 412
College Media Production III 3 Units
Prerequisite: JOUR 300 and 411 with grades of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course builds on the experience gained in Journalism 411. During this third-semester course, students focus on advanced intermediate writing and production skills, using the school newspaper The Connection and its online companion www.thecrcconnection.com, as a practical laboratory. Students will work in at least three of the following areas: researching, writing, and editing articles for the two publications; taking photographs and creating graphic illustrations; developing multimedia stories; or designing pages. Ethical and legal aspects of communication are also covered.

JOUR 413
College Media Production IV 3 Units
Prerequisite: JOUR 412 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course builds on the experience gained in Journalism 412. During this fourth-semester course, students focus on advanced writing and production skills, using the school newspaper The Connection and its online companion www.thecrcconnection.com, as a practical laboratory. Students will produce work in each of the following areas: researching, writing, and editing advanced and in-depth articles for the two publications; taking photographs and creating graphic illustrations; developing multimedia stories; and designing pages. Ethical and legal aspects of communication and media leadership/management are also covered and students should serve in leadership roles.

JOUR 420
College Media Production Lab I .5-3 Units
Prerequisite: ENGWR 101 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Corequisite: JOUR 404 and 410
Course Transferable to CSU
Hours: 162 hours LAB
This lab course helps students improve their writing, editing, photography, design, and computer skills as an addition to their enrollment in College Media Production I (JOUR 410) and/or Editing and Production (JOUR 404).

JOUR 421
College Media Production Lab II .5-3 Units
Prerequisite: JOUR 420 with a grade of “C” or better
Corequisite: JOUR 411
Course Transferable to CSU
Hours: 162 hours LAB
This lab course helps students build on skills gained in Journalism 410 and 420. During this second-semester course, students will continue to improve their skills in at least two of the following areas: writing, editing, photography, design, and web production skills as an addition to their enrollment in College Media Production II (JOUR 411).

JOUR 422
College Media Production Lab III .5-3 Units
Prerequisite: JOUR 421 with a grade of “C” or better
Corequisite: JOUR 412
Course Transferable to CSU
Hours: 162 hours LAB
This lab course helps students build on skills gained in Journalism 411 and 421. During this third-semester course, students will continue to improve their skills in at least three of the following areas: writing, editing, photography, design, and web production skills as an addition to their enrollment in College Media Production III (JOUR 412).

JOUR 423
College Media Production Lab IV .5-3 Units
Prerequisite: JOUR 422 with a grade of “C” or better
Course Transferable to CSU
Hours: 162 hours LAB
This lab course helps students build on skills gained in Journalism 412 and 422. During this fourth-semester course, students will continue to improve their skills in at least four of the following areas: writing, editing, photography, design, and web production skills as an addition to their enrollment in College Media Production IV (JOUR 413).

JOUR 495
Independent Studies in Journalism 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
JOUR 498
Work Experience in Journalism 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Journalism.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student's progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

JOUR 499
Experimental Offering in Journalism .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
Kinesiology & Athletics
Kinesiology, Health & Athletics

KINESIOLOGY / PHYSICAL EDUCATION
The prefixes KINES, ADAPT, DANCE, FITNESS, PACT, TMAC, and SPORT refer to courses which may be used to satisfy the physical education graduation requirement. Beginning classes concentrate on fundamental skills, rules, scoring, equipment, dress, etiquette and basic strategy. Intermediate classes continue efforts on skill development while concentrating on strategy and competitive play. Advanced courses allow a student to reach a high level of ability in the activity. All physical education activity classes are open to both men and women.

Courses with the “KINES” prefix are open to students interested in the physical education major and in the theoretical aspects of sports activity. KINES courses do not meet the physical education graduation requirement; however, they are all transferable. Some “KINES” courses have a unit limitation to the UC system. See a counselor for specific course limitations.

ATHLETICS
Cosumnes River College offers 9 intercollegiate sport teams for student participation:

For Men
- Baseball
- Basketball
- Soccer
- Tennis

For Women
- Basketball
- Soccer
- Softball
- Tennis
- Volleyball

Cosumnes River College is a member of the Big 8 Conference which includes community colleges located in Northern California. The Big 8 Conference is a member of the California Community College Athletic Association (CCCAA) 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 CCCAA. These requirements are very specific and the athletes are advised to become thoroughly familiar with them in order to avoid eligibility problems. The athletic director is familiar with the eligibility requirements and would be available to answer any questions you may have.

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 each semester 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.

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www crc.losrios.edu/pslo

DEGREE
A.A.-T — Kinesiology for Transfer
A.A. — Physical Education

Program Description
The Cosumnes River College Kinesiology program offers a wide variety of classes, including Fitness, Dance, Aquatics, Individual Sports, Team Sports, Intercollegiate Athletics, and Kinesiology classes. The program in Kinesiology outlined below is typical of lower-division requirements for four-year colleges and universities (though some requirements tend to vary from college to college). For specific requirements, students should refer to a catalog of the college of their choice. Students are also advised to see a counselor before selecting the courses best aligned with their transfer institution.

Career Opportunities
A DEGREE IN KINESIOLOGY, currently the 7th most popular major at CSUs, can lead to careers in Sports Medicine, Coaching, Teaching, Wellness, Personal Training, Cardiac Rehabilitation, Biomechanics, Physical Therapy, Occupational Therapy, Ergonomics, Corporate Fitness, Sports Management, Athletic Administration, Sports Broadcasting, Exercise Physiology, Sports Psychology and Sports Officiating.

Highlights
- A wide variety of course options
- Outstanding facilities that include two state of the art fitness centers, competitive aquatic facilities, baseball and softball stadium, community and athletic center, second gymnasium, soccer/football stadium, 5 FIFA regulation soccer fields with scoreboards, 8 championship tennis courts and numerous physical education fields.

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo
DEGREE
A.A.-T – Kinesiology for Transfer
Code #1987

Note to Transfer Students:
The Kinesiology for Transfer A.A.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

REQUIRED PROGRAM........................................................................... UNITS
KINES 300* Introduction to Physical Education, Kinesiology, 3
Fitness and Sport .........................................................
BIOL 430* Anatomy and Physiology ...................................... 5
BIOL 431* Anatomy and Physiology ....................................... 5

ELECTIVE LIST A - 2 Courses from the following:
A minimum of 7 units from the following: .............................. 7
STAT 300* Introduction to Probability and Statistics (4) 3
or PSYC 330* Introductory Statistics for the 3
Behavioral Sciences (3)
BIOL 310* General Biology (4)
CHEM 305* Introduction to Chemistry (5)
PHYS 350* General Physics (4)

ACTIVITY ELECTIVES:
A minimum of 3 units from the following: ............................ 3
FITNS 440* Swimming I (1)
FITNS 308* Step Aerobics (1)
FITNS 380* Circuit Weight Training (1)
FITNS 381* Weight Training (1)
FITNS 390* Basic Yoga (1)
FITNS 406* Walking and Jogging (1)
PACT 310* Badminton I (1)
TMAC 302* Soccer - Outdoor (1)
TMAC 320* Basketball (1)
TMAC 330* Volleyball (1)

TOTAL UNITS REQUIRED .......................................................... 21

DEGREE TOTAL (INCLUDING GE)................................................. 60

1 Select a maximum of one (1) course from any three (3) of the following areas for a maximum of three units: Aquatics (FITNS 440); Fitness (FITNS 308, 380, 381, 390, 406); Individual Sports (PACT 310); Team Sports (TMAC 302, 320, 330)

* Major courses which also fulfill a transfer General Education (GE) requirement ("double-counting"). Please note that there are limitations on double-counting — consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

Associate in Arts in Kinesiology for Transfer Degree
The Associate in Arts in Kinesiology A.A.-T degree may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.

DEGREE
A.A. — Physical Education
CODE #1499

REQUIRED PROGRAM................................................................. Units
KINES 300 Introduction to Physical Education, Kinesiology, 3
Biological Science (4)
BIOL 430 General Biology (4)
STAT 300 Introduction to Probability and Statistics (4) 5
HEED 300 Health Science (3)
KINES 301 Personal Wellness (3)
or HEED 350 Personal Wellness (3)
NUTRI 300 Nutrition (3)
PHYS 350 General Physics (4)

Plus a minimum of 1 unit from the following: ................. 1
One or two units selected from: Adapted Aquatics, Adapted Physical Education, Aerobics, Basketball, Body Fitness, Dance, Golf, Softball, Swimming, Team Sports, Tennis, Volleyball, Weight-Training

TOTAL UNITS REQUIRED ......................................................... 25

Associate in Arts Degree
The Physical Education Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
ADAPT 300
Adapted Physical Education 1-2 Units
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
In adapted physical education, the instructor works under the recommendation/direction of the student’s physician. Class activities are adapted or modified to meet individual needs. Each student performs at an individual level of ability without pressure or competition. Students with 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 disability, (b) specific restrictions, and (c) recommended activities.

ADAPT 332
Adapted Aquatics 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 9 hours LEC; 27 hours LAB
This physical education class is a personal water safety and fitness class adapted for individuals who are physically challenged. The class will be tailored for the individual’s abilities and needs. Topics covered will include stroke mechanics, water safety, movement through water, and the use of water for resistive exercises.

ADAPT 336
Motor Development for the Physically Challenged 1-2 Units
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
This course gives the student individual instruction which promotes and develops overall physical fitness and psychomotor skills. This activity class for the physically challenged includes exercises in flexibility, strength development, aerobic activity and relaxation training. Students must have a doctor’s recommendation on file.

ADAPT 495
Independent Studies in Adapted Physical Education 1-3 Units
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

DANCE 310
Jazz Dance I 1 Unit
Course Family: Jazz Dance Technique
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
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 jazz dance given in combinations and offers students the opportunity for exploration and improvisation using jazz steps learned in class. This class is for students with no or very little dance training.

DANCE 311
Urban Hip Hop 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course will introduce students to the elements of urban Hip Hop dance style and culture. Physical conditioning, instructor choreographed movements and student choreography will be included in the course. The history and evolution of hip hop dance will also be examined with emphasis placed on the positive message that Hip Hop brings to today’s society. No previous dance experience is necessary.

DANCE 312
Jazz Dance II 1 Unit
Course Family: Jazz Dance Technique
Prerequisite: DANCE 310 with a grade of “C” or better; or one year of beginning training determined by the professor per an evaluation for the level of proficiency.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This beginning/intermediate dance class continues the fundamental jazz skills learned in the previous level with further focus on proper technique including alignment, balance, multiple turns, leaps, and more complex combinations. This course is for students with some previous dance training.
DANCE 313
Jazz Dance III 1 Unit
Course Family: Jazz Dance Technique
Prerequisite: DANCE 312 with a grade of “C” or better; or two years of beginning toward intermediate skills of jazz dance, determined by the professor per an evaluation for the level of proficiency.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This intermediate dance class continues with the fundamental jazz skills learned in the previous level with a further focus on proper technique while performing more complex combinations and exploring different rhythms and styles. This course is for students with previous dance training.

DANCE 314
Jazz Dance IV 1 Unit
Course Family: Jazz Dance Technique
Prerequisite: DANCE 313 with a grade of “C” or better; or training at a level of intermediate skills of jazz dance, determined by the professor per an evaluation for the level of proficiency.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This intermediate/advanced dance class offers the opportunity for students to create a personal jazz style using the techniques learned in the previous levels. 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 class is for high intermediate to advanced dance students only.

DANCE 320
Ballet I 1 Unit
Course Family: Ballet Technique
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course covers the fundamentals of beginning ballet technique. Basic terminology, coordination, alignment and execution of beginning ballet technique will be addressed. Students will experience a typical ballet class beginning with exercises at the barre, developed exercises in the center and across the floor exercises. Students will gain strength, agility, flexibility, coordination and balance. Students will also acquire knowledge of ballet history and repertory. Students will present their semester-long study of beginning ballet in a final showcase performance. This course is for students with no to very little dance experience.

DANCE 321
Ballet II 1 Unit
Course Family: Ballet Technique
Prerequisite: DANCE 320 with a grade of “C” or better; or one year of beginning training determined by the professor per an evaluation for the level of proficiency.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is a continuation of beginning ballet technique with a progression in barre, center, and across the floor exercises. Fundamentals of beginning ballet are addressed with greater emphasis on strength and coordination. Students will further develop their ballet skills, movement vocabulary, and sequence construction while advancing their knowledge of ballet history and repertory. Students will present their semester-long study of Level II ballet in a final showcase performance. This course is recommended for students who have successfully completed Ballet I and are at a high beginner or intermediate level.

DANCE 322
Ballet III 1 Unit
Course Family: Ballet Technique
Prerequisite: DANCE 321 with a grade of “C” or better; or two years of beginning level training determined by the professor per an evaluation for the level of proficiency.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This intermediate ballet course provides a progression from Level II barre, center, and across the floor exercises with an emphasis on the anatomy that governs ballet mechanics. Intermediate level technique allows for additional movement vocabulary and a refinement in ªpaulement and adagio and allegro sequences. The contributions of pioneer and modern day choreographers and dancers will be highlighted along with intermediate level variations. Students will present their semester-long study of Level III ballet in a final showcase performance. This course is for students who have successfully completed Ballet II or are at a high intermediate level.

DANCE 323
Ballet IV 1 Unit
Course Family: Ballet Technique
Prerequisite: DANCE 322 with a grade of “C” or better; or an intermediate level of training determined by the professor per an evaluation for the level of proficiency.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This advanced ballet course provides a progression from Level III barre, center, and across the floor exercises with an opportunity for pre-pointe work, floor barre, conditioning, and variations. Advanced level technique allows for the refinement of intermediate skills and breathing techniques for muscular strength and endurance exercises. The contributions of contemporary choreographers and dancers will be highlighted along with contemporary variations. Students will present their semester-long study of Level IV ballet in a final showcase performance. This course is for students who have successfully completed Ballet III and are at the advanced level.
DANCE 330
Modern Dance I 1 Unit
Course Family: Modern Dance Technique
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This beginning class offers an introduction to basic dance movement and the basic elements of music and rhythm. This course includes rhythmic, isolated and expressive movement as well as elemental concepts of space, time and force. This course is for students with little or no previous dance training.

DANCE 332
Modern Dance II 1 Unit
Course Family: Modern Dance Technique
Prerequisite: DANCE 330 with a grade of “C” or better; or one year of beginning training determined by the professor per an evaluation for the level of proficiency.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This beginning/intermediate modern dance class continues with the fundamental modern dance skills learned in the previous level. This course includes rhythmic, isolated and expressive movement. Concepts of space, time and force as related to dance will be discussed. Various cultural and contemporary dances will be explored. This course is for students who have successfully completed Modern Dance I or have previous dance training.

DANCE 333
Modern Dance III 1 Unit
Course Family: Modern Dance Technique
Prerequisite: DANCE 332 with a grade of “C” or better; or have training at a beginning-intermediate level in modern dance, as determined by the professor per an evaluation for the level of proficiency.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This intermediate modern dance class continues to develop fundamental modern dance skills learned in the previous level. The class focuses on proper technique with more complex combinations. The students will perform various types of styles including cultural and contemporary dance. This course is for students who have successfully completed Modern Dance II or have previous dance training.

DANCE 334
Modern Dance IV 1 Unit
Course Family: Modern Dance Technique
Prerequisite: DANCE 333 with a grade of “C” or better; or have training at an intermediate level in modern dance, as determined by the professor per an evaluation for the level of proficiency.
Enrollment Limitation: The student's level of ability must be appropriate for the class. Students who are inexperienced or at too high of a level will be asked to take another course. The instructor will make this determination.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This intermediate/advanced modern dance class continues to develop fundamental modern dance skills learned in the previous level. The class focus is on proper technique while performing complex combinations and developing a personal style. This course creates an opportunity for self-discovery, self-discipline and self-expression in the art form of modern dance. Creative assignments will be given in improvisation and movement communication and expression utilizing problem-solving techniques. This course is for students who have successfully completed Modern Dance III or have previous dance training.

DANCE 351
Urban Hip Hop I 1 Unit
Course Family: Hip Hop Technique and Competition
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course includes basic urban-style Hip Hop moves and rapid level changes for floor work. Choreography is provided on a bare bones theme and developed according to individual style, ability and personal interpretation. The history of this genre and the traditional competitive elements of Hip Hop dance are examined, as well as the role of dance in Hip Hop culture. An opportunity for Freestyle, Old Style, Poppin', Lockin', and Dance Poetry exploration is offered.

DANCE 352
Urban Hip Hop II 1 Unit
Course Family: Hip Hop Technique and Competition
Prerequisite: DANCE 351 with a grade of “C” or better; or one year of beginning training determined by the professor per an evaluation for the level of proficiency.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course builds on the skills introduced with Urban Hip Hop I. Skills, steps, and hip hop dance combinations will progress in difficulty. Students will have more opportunity to explore freestyle movement and participate in session work. The emphasis of this class will cover the progression of hip hop dance beginning with break dance through the current trends of today.
DANCE 353
Urban Hip Hop III  
Course Family: Hip Hop Technique and Competition  
Prerequisite: DANCE 352 with a grade of “C” or better; or an intermediate level of training in Hip Hop dance, as determined by the professor per an evaluation for the level of proficiency.  
General Education: AA/AS Area II(a); CSU Area E  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This course builds on the skills and steps learned in Urban Hip Hop I and II. Level III dance combinations will be taught covering various styles within hip hop dance. Students will work in groups to create a final presentation that expands a teacher-choreographed dance into a full length performance piece that utilizes choreographic elements and adds student choreography. The emphasis of this class will be on choreographic styles.

DANCE 354
Urban Hip Hop IV  
Course Family: Hip Hop Technique and Competition  
Prerequisite: DANCE 353 with a grade of “C” or better; or an intermediate to advanced level of training in Hip Hop dance, as determined by the professor per an evaluation for the level of proficiency.  
General Education: AA/AS Area II(a); CSU Area E  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
This is an intermediate level course that builds on the skills learned in Urban Hip Hop levels I-III. Students will be introduced to freestyle movement and the elements of cyphering and battling. Musicality, emotion, and storytelling are explored as students develop their own artistry within freestyle movement. The emphasis of this class will be on utilizing intermediate level skills with freestyle movement.

DANCE 410
Dance Composition and Production I  
Course Family: Dance Composition and Production  
Prerequisite: None  
General Education: AA/AS Area II(a); CSU Area E  
Course Transferable to UC/CSU  
Hours: 18 hours LEC; 54 hours LAB  
This course introduces students to the elements of choreography and the creative processes of composing dances. Students assume the roles of dancer and choreographer in developing improvisation, directing, and performance skills to produce and perform original group compositions. This course culminates in a final showcase performance designed to give students an opportunity to experience a college level dance production.

DANCE 411
Dance Composition and Production II  
Course Family: Dance Composition and Production  
Prerequisite: None  
Advisory: DANCE 410; Student should have completed DANCE 410, or beginning level training, or satisfy the professor with a level of proficiency.  
General Education: AA/AS Area II(a); CSU Area E  
Course Transferable to UC/CSU  
Hours: 18 hours LEC; 54 hours LAB  
This course provides an opportunity to explore the processes of composing and producing beginning to intermediate level choreography. Students will work in small groups to develop original compositions that demonstrate an understanding of choreographic forms and creative processes. This course culminates in a final showcase performance.

DANCE 412
Dance Composition and Production III  
Course Family: Dance Composition and Production  
Prerequisite: DANCE 411 with a grade of “C” or better; or have beginning to intermediate knowledge of composing dances, determined by the professor per an evaluation for the level of proficiency.  
General Education: AA/AS Area II(a); CSU Area E  
Course Transferable to UC/CSU  
Hours: 18 hours LEC; 54 hours LAB  
This course provides an opportunity to explore the processes of composing and producing intermediate level choreography. Students will identify and integrate the contributions of modern and contemporary choreographers for the purpose of expanding their choreography skills. An emphasis on smaller compositions, for example, solos, duos, and trios will be included along with the roles of lighting and costume design. This course culminates in a final showcase performance.

DANCE 413
Dance Composition and Production IV  
Course Family: Dance Composition and Production  
Prerequisite: DANCE 412 with a grade of “C” or better; or have intermediate knowledge of composing dances, determined by the professor per an evaluation for the level of proficiency.  
General Education: AA/AS Area II(a); CSU Area E  
Course Transferable to UC/CSU  
Hours: 18 hours LEC; 54 hours LAB  
This course provides an opportunity to explore the processes of composing and producing advanced level choreography. Students will continue their study of modern and contemporary choreographers’ contributions for the purpose of expanding their choreography skills. An emphasis on cross-disciplinary studies including multimedia, drama, art, and music will provide an integrated approach for exploring the significance of dance and other art forms in contemporary society. This course culminates in a final showcase performance.

DANCE 495
Independent Studies in Dance  
Prerequisite: None  
General Education: AA/AS Area II(a); CSU Area E  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 54 hours LEC; 54 hours LAB  
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of Special Studies for full details of Independent Studies.

DANCE 499
Experimental Offering in Dance  
Prerequisite: None  
General Education: AA/AS Area II(a); CSU Area E  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 18 hours LEC; 54 hours LAB  
This course provides an opportunity to explore the processes of composing and producing beginning to intermediate level choreography. Students will work in small groups to develop original compositions that demonstrate an understanding of choreographic forms and creative processes. This course culminates in a final showcase performance.
FITNESS (FITNS)

FITNS 301
Aerobics 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LAB
This physical education course is an activity class designed to help students gain an understanding of how to develop overall physical fitness including cardiovascular fitness, muscular strength and endurance, and coordination. This course is also designed to help students develop a positive attitude toward exercise and healthful living through participation in aerobic exercise and class discussion. This course involves calisthenics, floor exercises, aerobic exercise and strength development.

FITNS 306
Aerobics: Cardio-Kickboxing 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LAB
This course emphasizes proper alignment, execution, and timing of faster paced movements from kickboxing, boxing, and aerobic dance to improve cardiovascular fitness. Various training methods will also be used to improve individual strength and flexibility.

FITNS 308
Step Aerobics 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This physical education course is an activity class designed to help students gain an understanding of how to develop overall physical fitness including cardiovascular fitness, muscular strength and endurance, and coordination. This course is also designed to help students develop a positive attitude toward activity, exercise and healthful living through participation in aerobic exercise and class discussion. This course involves the use of an exercise step and includes calisthenics, floor exercises, aerobic activity, exercise and strength development.

FITNS 320
Body Fitness 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LAB
This course is designed to assess and improve physical fitness levels, enhance weight control, and encourage a healthy attitude toward lifelong fitness. Students receive theories and practical activities involved in obtaining and maintaining a healthy weight and appropriate level of fitness.

FITNS 323
Fitness Ball 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LAB
The fitness ball is a valuable tool for developing core strength (middle of your body), flexibility and balance. Because of the fitness ball’s inherent instability, the effect of traditional strength training exercises is intensified when performed in conjunction with the fitness ball. Students will learn to safely and effectively execute strengthening exercises for all the major muscle groups with and without hand weights, flexibility exercises, and balancing exercises. Specific topics and exercises may vary each semester depending on the needs of the students.

FITNS 331
Boot Camp Fitness 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LAB
This course is designed to be a physically intense and challenging fitness class. Training exercises used during this class will include jogging, interval training, hill running training, obstacle courses, and performing a variety of calisthenics designed to enhance muscular strength and endurance. In addition, students will be challenged to understand and apply fitness training principles. The students will train individually, with a partner or in a team setting.

FITNS 335
Pre-Season Conditioning for Basketball 1.5 Units
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 36 hours LAB
This course is designed to prepare the collegiate basketball player for the competitive season. It presents a solid aerobic conditioning, weight-training, skill development, and team play combination of activities designed to prepare the athlete both physically and mentally. This course may be taken four times for credit.

FITNS 339
Multi Sport Training for Fitness 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course covers multi-sport training, including swimming, cycling and running. This class is designed for the beginner triathlete or any student interested in cross training for fitness. The student will be taught how to develop improved techniques in all three activities. Students must supply their own road or mountain bike and helmet. This course may be taken four times for credit.
FITNS 352
Power Sculpting 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
Power Sculpting is a non-impact conditioning course designed to enhance muscular fitness (muscular endurance and muscular strength), balance, and improve body composition by sculpting and defining muscles through the use of resistance equipment (other than weight machines), core training, calisthenics, and flexibility exercises.

FITNS 355
Workforce Fitness 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LAB
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.

FITNS 380
Circuit Weight Training 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
Circuit Weight Training shall introduce the student to a fitness program of progressive resistive exercises designed to promote improvement in muscular strength and endurance, cardiovascular endurance, and flexibility, as well as, decrease in body fat percentage. The student will move in a prescribed circuit (alternating timed lifting with active recovery) utilizing machines, free weights, cardiovascular activities, and flexibility training.

FITNS 381
Weight Training 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This physical education course is designed to develop fitness strength through weight training. Students will learn basic weight training techniques using the weight machines and basic free lifts. The student will be able to design and implement their own weight training program for future use after taking this class.

FITNS 390
Basic Yoga 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LAB
This course in Yoga emphasizes breathing, stretching, and relaxing techniques. Yoga positions and philosophies are examined.

FITNS 406
Walking and Jogging 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LAB
This course is designed to improve cardiovascular fitness, muscle endurance, and flexibility. Weight management, nutritional guidelines and healthy living information will also contribute to overall health and wellness for the student in this course.

FITNS 440
Swimming 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LAB
This class provides the opportunity for students to become safe and comfortable in the water. Students will develop swimming skills on their front and back. Instruction will emphasize freestyle and backstroke as well as water safety. Each student will progress toward becoming an endurance swimmer for enhanced fitness.

FITNS 441
Swimming II 1 Unit
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course is designed for non-swimmers or those returning to swimming after a long absence. Topics include basic water adjustment skills, floats, glides, basic freestyle and backstroke. It is appropriate for those afraid or not comfortable in deep water or those unable to correctly or continuously swim 25 meters without stopping. Instruction will be given in the physical and psychological adjustment to water.

FITNS 442
Swimming III 1 Unit
Course Family: Swimming
Prerequisite: FITNS 441 with a grade of “C” or better; Students must be able to swim 50 yards of freestyle with proficient side-breathing and 50 yards of backstroke.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
The purpose of this course is to teach intermediate swimmers, who have mastered basic water acclimation, water safety, and basic swimming skills, swim training protocols and design, further refinement of stroke technique, proper diving technique, and development of cardiovascular capacity. Students will learn and refine the stroke techniques of freestyle, backstroke, and breaststroke. Students will learn flip turns for freestyle and backstroke. Students will be introduced to swim training and workout design.
KINESIOLOGY (KINES)

KINES 300
Introduction to Kinesiology 3 Units
Prerequisite: None
General Education: AA/AS Area II(b); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course will provide students with an orientation to the fields of physical education, kinesiology, fitness, and sport. Students will be introduced to the history, philosophy, pedagogy, sociology, and psychology associated with these fields. In addition, students will learn about career opportunities in education, coaching, health, fitness, sports management, and sports media.

KINES 301
Personal Wellness 3 Units
Same As: HEED 350
Prerequisite: None
General Education: AA/AS Area II(b); CSU Area E1
Course Transferable to CSU
Hours: 54 hours LEC
This course takes a personal approach to lifetime healthy habits. The students will relate their own lives to topics that include: Fitness, weight management, relationships, nutrition, stress management, sexual health, risky behaviors, and prevention of diseases. Assessment, plans for change and reinforcement will be applied through the use of journals, projects, written assignments and tests. This course is the same as HEED 350, and only one may be taken for credit.

KINES 330
Care and Prevention of Athletic Injuries 3 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to injury prevention, injury care and rehabilitation of athletic injuries. It is designed for prospective coaches, athletic trainers, health and physical educators to aid in the recognition, evaluation, and care of athletic injuries.

KINES 495
Independent Studies in Fitness 1-3 Units
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

KINES 499
Experimental Offering in Fitness .5-4 Units
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC
See UC Limitations & Counselor
Course Transferable to CSU
Hours: 54 hours LEC
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

KINES 498
Work Experience in Physical Education 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Physical Education.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

KINES 499
Experimental Offering in Physical Education .5-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB

PERSONAL ACTIVITIES (PACT)

PACT 310
Badminton I 1 Unit
Prerequisite: None
General Education: AA/AS Area II(a); CSU Area E2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LAB
This course provides a review of basic fundamentals, techniques and rules. The emphasis is on skills and techniques such as play strategies for singles and doubles and shot selection for various play situations.
PACT 390
Tennis I 1 Unit
Course Family: Tennis
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
Hours: 54 hours LAB
This is a beginning tennis course. The course covers skills, rules, etiquette, and strategies of the game. The student will develop basic skills such as ground strokes, serving, volleying, elementary strategies, game rules, and basic knowledge of tennis strategies. The student will also engage in singles play and learn to improve in their play against an opponent. Playing tennis stimulates enjoyable, cooperative, and competitive modes of behavior and promotes awareness of physical activity for life long health and fitness. This course is designed for students with little or no prior tennis experience.

PACT 495
Independent Studies in Personal Activity 1-3 Units
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of Special Studies for full details of Independent Studies.

PACT 499
Experimental Offering in Personal Activity .5-4 Units
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB

SPORTS (SPORT)

SPORT 300
Baseball, Intercollegiate-Men 3 Units
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 175 hours LAB
This course is for students who wish to participate in intercollegiate baseball. This course may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

SPORT 301
Off Season Conditioning for Baseball 1-3 Units
Prerequisite: None
Enrollment Limitation: It is advised that students taking this course have played 2 years of high school varsity baseball.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is designed to optimize sports performance and reduce risk of injury for the off-season intercollegiate athlete in the sport of baseball. Course content will include: sport specific skill development, sport specific strength training, cardiovascular conditioning, agility work, plyometrics, speed training, and flexibility exercises. This course is designed to prepare students for intercollegiate baseball competition and may be repeated to meet requirements for CCCAA eligibility.

SPORT 311
Basketball, Intercollegiate-Men, Fall 1.5 Units
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 85 hours LAB
This course is for students who wish to participate in intercollegiate basketball. This course may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

SPORT 312
Basketball, Intercollegiate-Men, Spring 1.5 Units
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 90 hours LAB
This course is for students who wish to participate in intercollegiate basketball. This course may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

SPORT 313
Off Season Conditioning for Basketball 1-3 Units
Prerequisite: None
Enrollment Limitation: Once enrolled, the student must demonstrate intercollegiate athletic skills as determined by the coaching staff to remain enrolled in this course.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is designed to prepare the collegiate basketball player for the competitive season and reduce risk of injury. Course content will include: collegiate level basketball-specific skill development, a solid aerobic conditioning plan, sport specific strength training, agility work, plyometrics, speed training and flexibility exercises as well as team play combination of activities designed to prepare the athlete both physically and mentally. This course is designed to prepare students for intercollegiate basketball competition and may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.
**SPORT 316**  
Basketball, Intercollegiate-Women, Fall  1.5 Units  
Prerequisite: None  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 85 hours LAB  
This course is for students who wish to participate in intercollegiate basketball. This course may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

**SPORT 317**  
Basketball, Intercollegiate-Women, Spring  1.5 Units  
Prerequisite: None  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 90 hours LAB  
This course is for students who wish to participate in intercollegiate basketball. This course may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

**SPORT 350**  
Soccer, Intercollegiate-Men  3 Units  
Prerequisite: None  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 162 hours LAB  
This course is designed to prepare the intercollegiate soccer player for the competitive season and reduce the risk of injury. Course content will include: collegiate level soccer-specific skill and tactical development, a solid aerobic conditioning plan, sport specific strength training, agility work, plyometrics, speed training and flexibility exercises and other activities designed to prepare the athlete both physically and mentally. This course is designed to prepare students for intercollegiate soccer competition and may be repeated to meet requirements for CCCAA eligibility.

**SPORT 351**  
Off-Season Conditioning for Soccer  1-3 Units  
Prerequisite: None  
General Education: AA/AS Area III(a); CSU Area E  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 162 hours LAB  
This course is designed to prepare the collegiate soccer player for the competitive season and reduce the risk of injury. Course content will include: collegiate level soccer-specific skill and tactical development, a solid aerobic conditioning plan, sport specific strength training, agility work, plyometrics, speed training and flexibility exercises and other activities designed to prepare the athlete both physically and mentally. This course is designed to prepare students for intercollegiate soccer competition and may be repeated to meet requirements for CCCAA eligibility.

**SPORT 355**  
Soccer, Intercollegiate-Women  3 Units  
Prerequisite: None  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 175 hours LAB  
This course is for students who wish to participate in intercollegiate soccer. This course may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

**SPORT 356**  
Softball, Intercollegiate-Women  3 Units  
Prerequisite: None  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 175 hours LAB  
This course is for students who wish to participate in intercollegiate softball. This course may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

**SPORT 357**  
Soccer, Intercollegiate-Men  3 Units  
Prerequisite: None  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 162 hours LAB  
This course is for students who wish to participate in intercollegiate soccer. This course may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

**SPORT 358**  
Pre-Season Conditioning for Softball  .5 Units  
Prerequisite: None  
General Education: AA/AS Area III(a) (effective Summer 2013)  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 27 hours LAB  
This physical education course involves a combination of basic skills and strategy tactics with an emphasis on a fitness component for the sport of softball. The course will also offer a mental training component for peak performance. This course is designed to prepare students for intercollegiate softball competition and may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

**SPORT 359**  
Off-Season Conditioning for Softball  1-3 Units  
Prerequisite: None  
General Education: AA/AS Area III(a) (effective Summer 2013)  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 27 hours LAB  
This physical education course involves a combination of basic skills and strategy tactics with an emphasis on a fitness component for the sport of softball. The course will also offer a mental training component for peak performance. This course is designed to prepare students for intercollegiate softball competition and may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

**SPORT 360**  
Off-Season Conditioning for Tennis  .5-3 Units  
Prerequisite: None  
General Education: AA/AS Area III(a) (effective Spring 2014)  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 162 hours LAB  
This physical education course involves a combination of basic skills and strategy tactics with an emphasis on a fitness component for the sport of softball. The course will also offer a mental training component for peak performance. This course is designed to prepare students for intercollegiate softball competition and may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

**SPORT 365**  
Pre-Season Conditioning for Tennis  .5-3 Units  
Prerequisite: None  
General Education: AA/AS Area III(a); CSU Area E  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 175 hours LAB  
This course is designed to prepare the intercollegiate tennis player for the competitive season and reduce the risk of injury. Course content will include intercollegiate level tennis-specific skill development, a solid aerobic conditioning plan, sport specific - strength training, agility work, plyometrics, speed training and flexibility exercises and other activities designed to prepare the athlete both physically and mentally. This course is designed to prepare students for intercollegiate tennis competition and may be repeated to meet requirements for CCCAA eligibility.
SPORT 388  
Tennis, Intercolligiate-Men/Women  2 Units  
Prerequisite: None  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 175 hours LAB  
This course is for students who wish to participate in intercollegiate tennis. This course may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

SPORT 405  
Volleyball, Intercolligiate-Women  3 Units  
Prerequisite: None  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 175 hours LAB  
This course is for students who wish to participate in intercollegiate volleyball. This course may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

SPORT 406  
Off Season Conditioning for Volleyball  1-3 Units  
Prerequisite: None  
Enrollment Limitation: Once enrolled, the student must demonstrate intercollegiate athletic skills as determined by the coaching staff to remain enrolled in this course.  
General Education: AA/AS Area III(a); CSU Area E  
Course Transferable to UC/CSU  
Hours: 162 hours LAB  
This course is designed to prepare the collegiate volleyball player for the competitive season and reduce risk of injury. Course content will include: Collegiate level volleyball-specific skill development, a solid aerobic conditioning plan, sport specific strength training, agility work, plyometrics speed training and flexibility exercises as well as team play combination of activities designed to prepare the athlete both physically and mentally. This course is designed to prepare students for intercollegiate volleyball competition and may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

SPORT 495  
Independent Studies in Sport  1-3 Units  
Prerequisite: None  
General Education: AA/AS Area III(a); CSU Area E2  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 162 hours LAB  
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

SPORT 499  
Experimental Offering in Sport  .5-4 Units  
Prerequisite: None  
General Education: AA/AS Area III(a); CSU Area E  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 18 hours LEC; 54 hours LAB  
This course is an experimental offering in Sport. This course may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

TEAM ACTIVITIES (TMACT)

TMACT 300  
Soccer, Indoor  1 Unit  
Course Family: Soccer  
Prerequisite: None  
General Education: AA/AS Area III(a); CSU Area E  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
The purpose of this course is to provide the student with beginning level knowledge and skills associated with indoor soccer. This course emphasizes defense, offense, passing, ball control, heading, and shooting. It covers the skills, strategy, and rules that govern the play of indoor soccer.

TMACT 301  
Indoor Soccer II  1 Unit  
Course Family: Soccer  
Prerequisite: None  
Advisory: TMACT 300; Student should have completed Indoor Soccer I, played 1 year of High School Varsity Soccer, completed 1 year of College Soccer, or satisfy the professor with a level of proficiency.  
General Education: AA/AS Area III(a); CSU Area E  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
The purpose of this course is to provide the student with an intermediate level player environment to challenge the players knowledge and skills associated with indoor soccer. This course emphasizes an intermediate level of defending, attacking, and technical ability. It covers the skills, strategy, and rules that govern the play of indoor soccer. This class is not for beginners.

TMACT 302  
Soccer - Outdoor  1 Unit  
Course Family: Soccer  
Prerequisite: None  
General Education: AA/AS Area III(a); CSU Area E  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
The purpose of this course is to provide the student with beginning level knowledge and skills associated with outdoor soccer. This course emphasizes defense, offense, passing, ball control, heading, and shooting. It covers the skills, strategy, and rules that govern the play of outdoor soccer.

TMACT 303  
Outdoor Soccer II  1 Unit  
Course Family: Soccer  
Prerequisite: None  
Advisory: TMACT 302; Student should have completed Outdoor Soccer I, played 1 year of High School Varsity Soccer, completed 1 year of College Soccer, or satisfy the professor with a level of proficiency.  
General Education: AA/AS Area III(a); CSU Area E  
Course Transferable to UC/CSU  
Hours: 54 hours LAB  
The purpose of this course is to provide the student with an intermediate level player environment to challenge and improve the player’s knowledge and skills associated with outdoor soccer. This course emphasizes an intermediate level of defending, attacking, and technical ability. It covers the skills, strategy, and rules that govern the play of outdoor soccer. This class is not for beginners.
TMACT 304
Outdoor Soccer III  1 Unit
Course Family: Soccer
Prerequisite: None
Advisory: TMACT 303; Student should have completed Outdoor Soccer II, played 2 years of High School Varsity Soccer, played at the competitive level of youth soccer, completed 1 year of College Soccer, or satisfy the professor with a level of proficiency.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
The purpose of this course is to provide the student with an advanced level player environment to challenge the player's knowledge and skills associated with outdoor soccer. This course emphasizes an advanced level of defending, attacking, and technical ability. It covers the skills, strategy, and rules that govern the play of outdoor soccer. This class is not for beginners or intermediate players.

TMACT 320
Basketball  1 Unit
Course Family: Basketball
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LAB
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.

TMACT 331
Volleyball II  1 Unit
Course Family: Volleyball
Prerequisite: None
Advisory: TMACT 330; Intermediate volleyball students should have some playing experience and basic volleyball knowledge and skills.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This is an intermediate volleyball class. Lecture, demonstration and participation will provide the student with sufficient knowledge for continued participation in volleyball. This class will focus on refining basic skills, introducing more complicated techniques and teaching more advanced strategies.

TMACT 333
Volleyball III  1 Unit
Course Family: Volleyball
Prerequisite: None
Advisory: TMACT 331; advanced volleyball students are recommended to have significant experience, preferably at the high school varsity level.
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This is an advanced volleyball class. Lecture, demonstration and participation will provide the student with sufficient knowledge for continued participation in volleyball at an advanced level. In advanced volleyball, students work on improving the more complicated skills and techniques of the sport and competitive play takes a higher priority.

TMACT 330
Volleyball  1 Unit
Course Family: Volleyball
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to UC/CSU
Hours: 54 hours LAB
This is a beginning volleyball class. Lecture, demonstration and participation will provide the student with sufficient knowledge for continued participation in volleyball. The fundamentals of passing, setting, serving, attacking, blocking, digging, rules of play and simple strategies will be covered.

TMACT 495
Independent Studies in Team Activity  1-3 Units
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of Special Studies for full details of Independent Studies.

TMACT 499
Experimental Offering in Team Activity  .5-4 Units
Prerequisite: None
General Education: AA/AS Area III(a); CSU Area E
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.A.—Liberal Arts

Program Description
The Associate in Liberal Arts degree is designed for students who wish a broad knowledge of liberal arts and sciences, plus additional studies in one of four “Areas of Emphasis”. An area of emphasis would be an appropriate choice for a student planning to transfer to the California State University (CSU) or the University of California (UC), as the student can satisfy general education requirements, plus focus on transferable coursework that relates to majors at CSU or UC. Students must satisfactorily complete 60 units of collegiate coursework with a “C” (2.0) grade point average in curriculum that the district accepts toward this degree.

NOTE: If you plan to transfer after completing this Liberal Arts degree, please see a counselor for assistance with selecting the most appropriate transfer (300 or higher level) courses.

Career Opportunities
Most businesses/agencies acknowledge a higher education degree for promotional and salary enhancement purposes.

Highlights
• Gain a broad knowledge of liberal arts and sciences
• A valuable foundation for a variety of career or transfer opportunities
• Diversified faculty
• Overview of theoretical and practical principles
• Given the interdisciplinary approaches in a liberal arts degree, students can design a program of study that more closely reflects their interests

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo
A. GENERAL EDUCATION
(minimum of 21 units)

Select courses from the CRC General Education Requirements for AA/AS Degrees.

B. AREA OF EMPHASIS OPTIONS:
Minimum 18 unit requirement

Students must take a minimum of 18 units from one of the following areas. Where appropriate, courses in the selected Area of Emphasis may also be counted for general education.

AREA OF EMPHASIS 1 – ARTS AND HUMANITIES:
These courses emphasize the study of cultural, literary, humanistic activities and artistic expression of human beings. Students will evaluate and interpret the ways in which people through the ages in different cultures have responded to themselves and the world around them in artistic and cultural creation. Students will also learn to value aesthetic understanding and incorporate these concepts when constructing value judgments. Students must select their preferred courses from two or more of the following disciplines. Students must select their preferred courses from two or more of the following disciplines.

ART 300, 302, 304, 305, 312, 320, 323, 324, 327, 328, 361, 370, 372, 430
ARCH 310, 332
ARTH 300, 303, 309, 311, 312, 324, 325, 328, 332, 333
ARTPH 301, 342
ENGW 400, 410, 480
ENGL 303, 310, 311, 320, 321, 330, 336, 340, 341, 343, 345, 360, 370, 402
ENGW 301
FMS 300, 305, 320, 488
GEOS 481
HIST 364, 365, 380
HONOR 350, 360, 382
HUM 300, 301, 310, 320, 324, 331, 332, 484, 486
MUFIL 300, 308, 310, 311, 315, 321, 330, 400
MUVI 310, 311, 340, 341, 350, 351, 370, 371, 495
MUP 310, 320, 350, 357, 360
MUSM 370
PHIL 300, 304, 310, 330, 331, 338, 350, 352, 356, 360
PHOTO 301, 420
RTVF 305, 378
SILA 315, 316
SPAN 401, 402, 411, 412, 413, 415, 425, 426, 427
TA 300, 302, 303, 306, 322, 323, 350, 356, 401
VIET 401, 402, 411, 412

AREA OF EMPHASIS 2 – COMMUNICATION AND WRITING
These courses emphasize the content and form of communication and provide an understanding of the psychological basis and social significance of communication and writing. Students will be able to assess communication as the process of human symbolic interaction. Students will also develop skills in the areas of reasoning and advocacy, organization, accuracy, reading and listening effectively. Students will be able to integrate important concepts of critical thinking as related to the development of analysis, critical evaluation, and inductive and deductive reasoning that will enable them to make important decisions regarding their own lives and society at large. Students must select their preferred courses from two or more of the following disciplines.

COMM 301, 311, 315, 331, 361
ENGRD 310
ENGW 300, 301, 302
ESLW 340
PHIL 300, 320, 325, 328
SOC 305

AREA OF EMPHASIS 3 – SOCIAL AND BEHAVIORAL SCIENCES
These courses emphasize the perspective, concepts, theories and methodologies typically found in the vast variety of disciplines that comprise study in the Social and Behavioral Sciences. Students will study about themselves and others as members of a larger society. Topics and discussion to stimulate critical thinking about ways people have acted in response to their societies will allow students to evaluate how societies and social subgroups operate. Students must select their preferred courses from two or more of the following disciplines.

AGB 321
ANTH 310, 316, 323, 324, 331, 332, 334, 341, 374
BUS 330, 345
COMM 325, 341, 363, 480
ECE 312, 314
ECON 302, 304, 306
GEOS 302, 310, 322, 481
HIST 301, 302, 307, 308, 312, 313, 314, 320, 321, 331, 344, 360, 364, 365, 370, 371, 373
HONOR 340, 370, 380
HUM 484
JOUR 310, 320
PHIL 360
POLS 301, 302, 304, 310, 311, 312, 313, 314, 315, 317, 318, 319, 320
PSYC 300, 312, 320, 335, 340, 353, 356, 360, 368, 371
RTVF 300
SILA 330
SOC 300, 301, 305, 321, 341
SOCSC 300, 320, 325, 330, 360, 480
TA 306

AREA OF EMPHASIS 4 – MATH AND SCIENCE
These courses emphasize the natural sciences which examine the physical universe, its life forms and its natural phenomena. Courses in Math emphasize the development of mathematical and quantitative reasoning skills beyond the level of intermediate algebra. Students will be able to demonstrate an understanding of the methodologies of science as investigative tools. Students will also examine the influence that the acquisition of scientific knowledge has on the development of the world’s civilizations. Students must select 3-6 units in math/statistics and 12-15 units in the remaining science disciplines.

ANTH 300, 301
ASTR 300, 400
CHEM 305, 306, 309, 321, 322, 400, 401, 420, 421
GEOS 300, 301, 305, 306
GEOL 300, 301, 305, 306, 310, 311, 330
MATH 300, 310, 335, 341, 343, 344, 350, 351, 370, 400, 401, 402, 410, 420
PHYS 310, 350, 360, 370, 380, 411, 421, 431
PSYC 312, 330
STAT 300

C. ELECTIVE UNITS
Degree applicable and/or transfer level units as needed to meet the 60 unit degree requirement.
Program Description
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.

Paraprofessional library careers are available by completing a Library Technology program at a community college, such as Sacramento City College.

Career Opportunities
Librarian
School (K-12) Librarian
Library Technicians
Archivist
Research Analyst

Some Career Opportunities may require more than two years of college study.

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

NOTE:
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

LIBRARY (LIBR)

LIBR 318
Library Research and Information Literacy 1 Unit
Prerequisite: None
General Education: AA/AS Area III(b)
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 18 hours LEC
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.

LIBR 325
Internet Research Skills 3 Units
Prerequisite: None
Advisory: ENGRD 310, ENGWR 101, ESLR 320, and ESLW 320; or equivalent skills demonstrated through the assessment process; Basic familiarity with computers is recommended for this course.
General Education: AA/AS Area III(b)
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC
This course introduces the development, access, and evaluation of electronic information sources. Emphasis is placed on the effective use of the Internet as a research tool, using appropriate search strategies and techniques. This course covers online resources such as electronic databases, search engines, web portals, listservs, blogs, wikis, library catalogs, and the invisible web. Historical and social issues surrounding the Internet are also discussed.

LIBR 495
Independent Studies in Library 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

LIBR 499
Experimental Offering in Library .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.A. — Management

CERTIFICATE OF ACHIEVEMENT
Retail Management

See also:
Small Business Management / Entrepreneurship
(Business Program)

Program Description
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.

Career Opportunities
Branch Manager
First-line Supervisor
Plant Manager
Entrepreneur
Small Business Owner/Manager

Some Career Opportunities 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
• A lab with tutorial assistance

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate's degree in this major may be different from the requirements needed for the bachelor's degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.A.—Management
CODE #1169

REQUIRED PROGRAM....................................................... Units
Business Core:
ACCT 301 Financial Accounting........................................ 4
BUS 310 Business Communication.................................. 3
BUS 330 Managing Diversity in the Workplace.................. 3
BUS 340 Business Law................................................... 3
BUS 300 Introduction to Business.................................... 3
BUSTEC 302 Computer Keyboarding.............................. 2
MT 300 Principles of Marketing...................................... 3
ECON 302 Principles of Macroeconomics or
BUS 320/ECON 320 Concepts of Personal Finance....... 3
CISC 310 Intro to Computer Information Science (3) or
Four (4) units to include:
CISC 302/JOUR 330 Computer Familiariz. (2) and
Two (2) additional units selected from:
CISA 305, 315, 320, 330, 340;
CISC 320, 355.................................................. 3-4

Management Option:
MGMT 362 Techniques of Management.......................... 3
MGMT 372 Human Relations & Organizational Behavior........ 3
Plus three (3) units selected from:
BUS 210; MGMT 360; MGMT 330
Plus three (3) units selected from:
MGMT 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260,
262, 264, 266, 268, 270, 272, 274
TOTAL UNITS REQUIRED........................................39-40

Suggested Electives:
ACCT 125, 311; MGT 120

Associate Degree
The Management Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Retail Management
CODE #1175

Required Program....................................................... Units
ACCT 101 Fundamentals of College Accounting (3) or
ACCT 301 Financial Accounting (4)................................. 3-4
BUS 105 Business Mathematics.................................... 3
BUS 310 Business Communication or
BUS 100 Business English or
MGMT 360 Management Communication....................... 3
CISA 305 Beginning Wordprocessing............................... 2
CISA 315 Intro to Electronic Spreadsheets........................ 2
MGMT 362 Techniques of Management............................ 3
MGMT 308 Personnel & Human Resources Management...... 3
MGMT 372 Human Relations & Organizational Behavior...... 3
MKT 300 Principles of Marketing.................................... 3
MKT 312 Retailing........................................................ 3
COMM 301 Introduction to Public Speaking or
COMM 321 Interpersonal Communication....................... 3
TOTAL UNITS REQUIRED............................................31-32
MANAGEMENT (MGMT)

MGMT 240
How to Build Employee Morale and Motivate Employees .5 Units
Prerequisite: None
Hours: 9 hours LEC
Motivation is one of the key ingredients in employee performance and productivity. When workers have clear work objectives, the right skills, and a supportive work environment, they won’t get the job done without sufficient motivation to achieve those work objectives. This course introduces a series of motivational theories that the manager can use to successfully meet the needs of individual workers and improve productivity on the job. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 242
Applied Motivational Practices .5 Units
Prerequisite: None
Hours: 9 hours LEC
This is a class in advanced motivational practices that may be used to motivate employees to improve productivity. Motivational theories are used as a tool to improve the performance of associates. A feeling of appreciation is critical in the increased productivity of employees and this unit provides instruction in how to accomplish these desired outcomes. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 244
Stress Management .5 Units
Prerequisite: None
Hours: 9 hours LEC
An outline of stress and its causes and consequences will be discussed. Why it affects people differently will be explained. The physiological, psychological and behavior of stress will be examined. Five ways will be identified to manage stress in the workplace. This will give the manager the necessary tools to understand and better manage stress in the workplace. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 246
Improving Individual Performance, Perception and Personality .5 Units
Prerequisite: None
Hours: 9 hours LEC
This course examines perception and the ways it influences decisions and attitudes in the workplace. An examination of social theory, stereotyping, the attribution process, personality traits and other related theories would be conducted. Diversity management training often communicates the value of diversity and increase awareness of perceptual biases, but do not correct deep-rooted prejudices. Personality may explain some of these differences as it is explored in more detail in this unit. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 248
Ethics, Values and Emotions in the Workplace .5 Units
Prerequisite: None
Hours: 9 hours LEC
The ethics of a business are critical to its success. This unit discusses the values, ethics and behaviors exhibited in businesses and their impact on both the staff and profitability of the company. This unit will guide each participant the skills to understand and monitor the emotions of themselves and their associates. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 250
Communicate Successfully in the Organization .5 Units
Prerequisite: None
Hours: 9 hours LEC
This course explains how communications facilitates knowledge sharing, aids decision-making, coordinates work activities and fulfills the need for affiliation. The manner in which the communication process is used to form, encode and transmit the intended messages and provides feedback to the sender is discussed. This unit shows various ways to improve the communications. Individual and company-wide solutions are offered. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 252
Building Great Teams .5 Units
Prerequisite: None
Hours: 9 hours LEC
All teams are groups because they consist of people with a unifying relationship, but some groups do not have the purposive interaction of terms. This unit covers the dynamics of good groups decision-making. Many different techniques are discussed to improve team building. Managers who gain the skills discussed in this unit should be able to build teams that are successful in their operation. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 254
Getting Employees Involved in Management Decisions .5 Units
Prerequisite: None
Hours: 9 hours LEC
Managers will learn the importance of having employees involved in the operations of the organization. They will learn that employee involvement may lead to higher quality decisions, employee satisfaction, empowerment, and development in decision-making skills. An emphasis on the importance of quality is covered. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 256
How to Make Great Decisions .5 Units
Prerequisite: None
Hours: 9 hours LEC
The importance of good decision-making and the techniques to achieve the same are discussed. The four stages of creativity are learned by the participants to improve their decision-making potential. How managers can improve the organizational creativity is discussed along with a variety of management techniques to bring this about in the workplace. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.
MGMT 258

Power and Politics in the Business and How to Use Them  .5 Units

Prerequisite: None
Hours: 9 hours LEC

Power is the capacity to influence others. The five basis of power are discussed and then it is shown how to leverage this power. Sexual harassment is an abuse of power and the offender may not be aware of the result of their actions on others. Ways to abuse power are discussed. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 260

What is Conflict?  .5 Units

Prerequisite: None
Hours: 9 hours LEC

Being able to successfully handle conflict management is the objective of this unit. Techniques to be used in conflict management will be discussed. The process of negotiation is explained. A variety of different approaches and outcomes to handling conflict are discussed. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 262

Steps to Being a Great Leader  .5 Units

Prerequisite: None
Hours: 9 hours LEC

The characteristics of good leaders are explained. Leadership is divided into two clusters. Contingency leadership techniques theories are explained. Path-goal and other theories are used to improve productivity. Leadership practiced by women is different than men. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 264

Using Change to Improve an Organization  .5 Units

Prerequisite: None
Hours: 9 hours LEC

There are several different ways to manage change in the organization. Leadership techniques are used in different situations. Care should be taken to understand the need for a change agent. Change is important to the long-term success of all companies. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 266

The Culture of Organizations  .5 Units

Prerequisite: None
Hours: 9 hours LEC

The corporate culture that exists in a business serves as a guide for all business decisions. The three main functions will be covered. Companies with a strong corporate culture are more likely to be more successful. It is important that all publics observe a clear and consistent culture. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 268

Making Employees Feel at Home  .5 Units

Prerequisite: None
Hours: 9 hours LEC

A psychological contract between managers and employees that contains a set of perceived mutual obligations exists. Trust is a critical element of this contract. In the work force of today, many different worker classifications exist in a firm. If workers are made to feel a part of the organization they are more likely to have a higher level of productivity and techniques to accomplish this will be taught. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 270

Design a Winning Organizational Structure  .5 Units

Prerequisite: None
Hours: 9 hours LEC

This class deals with the organizational structure and the division of labor. It discusses the basic elements of element structure and includes span of control, centralization, formalization, and departmentalization. Different styles of structures to meet new and changing working conditions will be discussed. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 272

Interview, Select and Retain Good Employees  .5 Units

Prerequisite: None
Hours: 9 hours LEC

This unit deals with the hiring, firing, training and retention of good employees. Emphasis is on determining what the job description and job specification will be for the best employee and then the steps necessary to secure that employee. A variety of techniques to accomplish these goals are discussed. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 274

Day Trading-Investing on the Internet  1 Unit

Prerequisite: None
Hours: 18 hours LEC

This is an opportunity to engage in day trading of stocks in a controlled environment. A basic knowledge of securities is taught. Then the experience of buying and selling stocks on a continuous basis over a limited period of time is engaged in on a controlled basis. This virtual experience does not involve real money, but brings the reality of winning and losing into the class setting. All work must be completed, turned in, and the final exam completed prior to the first day of the regularly scheduled semester finals.

MGMT 295

Independent Studies in Management  1-3 Units

Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB

An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
MGMT 299
Experimental Offering in Management .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

MGMT 308
Personnel and Human Resources Management 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
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.

MGMT 360
Management Communication 3 Units
Prerequisite: None
Advisory: MGMT 362
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 54 hours LEC
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.

MGMT 362
Techniques of Management 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
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.

MGMT 372
Human Relations and Organizational Behavior 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
Effective human interaction principles that build confidence, competence and positive attitudes in work organizations are learned in this course. Topics that include the basis for human behavior, perception, communication, motivation, performance improvement, group behavior, ethics and social responsibility are major areas of emphasis. This course emphasizes the psychology of human relations management.

MGMT 495
Independent Studies in Management 1-3 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

MGMT 498
Work Experience in Management 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Management.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

MGMT 499
Experimental Offering in Management .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
Marketing
Business & Family Science

DEGREE
A.A.—Marketing

See also:
Professional Applications of Geographic Information Systems (GIS) (Marketing emphasis)
(Geography Program)

Small Business Management / Entrepreneurship
(Business Program)

Program Description
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 for additional marketing courses.

A rewarding future awaits those who are motivated and enjoy working in one of the following marketing areas:

Career Opportunities
Buyer
Entrepreneur
Marketing Services
Purchasing Agent
Shipping Clerk
Export / Import

Account Executive
Investment Counselor
Stockbroker
Salesperson
Marketing Manager

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate's degree in this major may be different from the requirements needed for the bachelor's degree.

For information about the student learning outcomes for this program, see www.crc.l osrios.edu/pslo

DEGREE
A.A.—Marketing
CODE #1177

REQUIRED PROGRAM.................................................................... Units

BUSINESS CORE:
ACCT 301 Financial Accounting (4)........................................3-4
or ACCT 101 Fundamentals of College Accounting (3)
BUS 300 Introduction to Business..............................................3
BUS 310 Business Communications..........................................3
BUS 330 Managing Diversity in the Workplace........................3
BUS 340 Business Law..............................................................3
BUSTEC 302 Computer-Keyboarding........................................2
CISC 310 Intro to Computer Information Science (3).............3-4
or Four (4) units to include:
CISC 302/JOUR 330 Computer Familiarization (2)
and Any two (2) additional units selected from:
CISA 305, 315, 320, 330, 340
CISC 320, 355
ECON 302 Principles of Macroeconomics (3).........................3
or BUS 320 Concepts in Personal Finance (3)
or ECON 320 Concepts in Personal Finance (3)

MARKETING FOCUS:
MGMT 362 Techniques of Management..................................3
MKT 300 Principles of Marketing..............................................3
MKT 310 Selling Professionally (3)..........................................3
or MKT 330 Internet Marketing (3)
A minimum of 3 units from the following:.................................3
BUS 210 The Business Plan (1)
BUS 222 Going International (1)
BUS 350 Small Business Management/Entrepreneurship (3)
MKT 312 Retailing (3)
MKT 314 Advertising.............................................................3

A minimum of 3 units from the following:.................................3
BUS 498 Work Experience in Business (1-4)
HCD 132 Career Exploration (1)
HCD 310 College Success (3)
HCD 320 Skills for Online Student Success (1)
HCD 340 Job Search Portfolio Development (1)
HCD 362 Work/Life Management (2)

TOTAL UNITS REQUIRED......................................................41-43

Suggested Electives:
CISA 330, 340; MKT 120
MGMT 240, 242, 244, 246, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274
RE 300

Associate Degree
The Marketing Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
MARKETING (MKT)

MKT 120  
Survey of International Business  3 Units  
Prerequisite: None  
Hours: 54 hours LEC  
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 multinational corporations.

MKT 295  
Independent Studies in Marketing  1-3 Units  
Prerequisite: None  
Hours: 54 hours LEC; 54 hours LAB  
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

MKT 299  
Experimental Offering in Marketing  .5-4 Units  
Prerequisite: None  
Hours: 18 hours LEC; 54 hours LAB  

MKT 300  
Principles of Marketing  3 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54 hours LEC  
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.

MKT 310  
Selling Professionally  3 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54 hours LEC  
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.

MKT 312  
Retailing  3 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54 hours LEC  
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.

MKT 314  
Advertising  3 Units  
Same As: RTVF 376  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54 hours LEC  
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. This course is the same as RTVF 376, and only one may be taken for credit.

MKT 330  
Internet Marketing  3 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course is designed to provide both the novice and skilled business person with a working knowledge of how to use Internet marketing. We will teach students to interact with specialists to devise strategies that build customer relations through technological strategies. These specialists may include network specialists, systems analysts, graphic designers, or web masters. Students will have a good understanding of how this technology can be used to help his/her business be more successful.

MKT 495  
Independent Studies in Marketing  1-3 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54 hours LEC; 54 hours LAB  
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

MKT 498  
Work Experience in Marketing  1-4 Units  
Prerequisite: None  
General Education: AA/AS Area III(b)  
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Marketing.  
Course Transferable to CSU  
Hours: 300 hours LAB  
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

MKT 499  
Experimental Offering in Marketing  .5-4 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 18 hours LEC; 54 hours LAB
DEGREES
A.S.-T — Mathematics for Transfer
A.S. — Mathematics

Program Description
CRC's Mathematics program offers a comprehensive mathematics curriculum addressing the needs of both transfer and non-transfer students. The study of mathematics provides students with the ability to think logically and abstractly and to use problem-solving and computational skills necessary for success in any field of study.

Career Opportunities
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

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an Associate's degree in this major may be different from the requirements needed for the Bachelor's degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.S.-T — Math for Transfer

Associate in Science in Mathematics for Transfer degree is designed to meet common lower-division requirements for a major in mathematics at most California State University (CSU) campuses. Satisfactory completion of the CRC Associate in Science in Mathematics for Transfer (A.S.-T) degree provides a solid foundation and satisfies the standard prerequisites for upper division coursework for mathematics majors at most CSU and other four-year universities. However, it is highly recommended that students meet with a counselor since major and general education requirements vary for each college/university.

Note to Transfer Students:
The Math for Transfer A.S.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 400*</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 401*</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 402*</td>
<td>Calculus III</td>
<td>5</td>
</tr>
<tr>
<td>MATH 410*</td>
<td>Introduction to Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 420*</td>
<td>Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL UNITS REQUIRED</td>
<td></td>
<td>22</td>
</tr>
</tbody>
</table>

DEGREE TOTAL (INCLUDING GE) 60

* Major courses which also fulfill a transfer General Education (GE) requirement ("double-counting"). Please note that there are limitations on double-counting — consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

Associate in Science in Math for Transfer Degree
The Associate in Science in Mathematics for Transfer (A.S.-T) degree may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Interssegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.
DEGREE  
A.S.—Mathematics  
CODE #1404

This degree is designed to provide a foundation in mathematics and to meet common lower-division requirements for a major in mathematics or statistics at many four-year transfer institutions. It is highly recommended that students meet with a counselor because major and general education requirements vary for each college/university.

REQUIRED PROGRAM

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</tr>
<tr>
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<td>Introduction to Linear Algebra</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus select one of the following courses:  
- CISP 360 Introduction to Structured Programming (4)
- CISP 370 Beginning Visual BASIC (4)
- CISP 400 Object Oriented Programming with C++ (4)
- CISP 401 Object Oriented Programming with Java (4)
- STAT 300 Introduction to Probability and Statistics (4)

TOTAL UNITS REQUIRED: 26

Associate Degree

The Mathematics Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

MATH 20  
Arithmetic  
5 Units

Prerequisite: None  
Hours: 90 hours LEC

This course provides instruction in the fundamentals of arithmetic with emphasis on computational skills. Topics include whole numbers, fractions, decimals, percents, ratios, proportions, problem solving, and applications.

MATH 30  
Pre-Algebra Mathematics  
5 Units

Prerequisite: MATH 20 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.  
Hours: 90 hours LEC

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.

MATH 70  
Arithmetic Skills Lab  
.25-2 Units

Prerequisite: None  
Corequisite: MATH 20  
Hours: 108 hours LAB

This laboratory course provides the student with assistance in arithmetic skills via enrollment in the campus’ Math Center. It is recommended for students who are encountering difficulties in the areas of math anxiety, basic skills, problem solving, and/or arithmetic concepts. Students may enter the Skills Lab course at any time during the first 12 weeks of the semester. It is recommended that the student register for 0.25 units. This recommended unit enrollment will require the student to spend a minimum of 13.5 hours throughout the semester in the Math Center studying for the relevant course. Students can take this course again in subsequent semesters until 2.0 total units have been completed. Students must be concurrently enrolled in an arithmetic-level course (MATH 20 - 29) in order to enroll in MATH 70. Placement into this Skills Lab can be made through student request, instructor recommendation, or an assessment process. This course is graded on a pass/no-pass basis.

See page 299 for AP Math Credit  
See page 300 for CRC Math Tree
MATH 71
Pre-Algebra Skills Lab  .25-2 Units
Prerequisite: None
Corequisite: MATH 30
Hours: 108 hours LAB
This laboratory course provides the student with assistance in pre-algebra skills via enrollment in the campus’ Math Center. It is recommended for students who are encountering difficulties in the areas of math anxiety, basic skills, problem solving, algebraic manipulations and/or algebra concepts. Students may enter the Skills Lab course at any time during the first 12 weeks of the semester. It is recommended that the student register for 0.25 units. This recommended unit enrollment will require the student to spend a minimum of 13.5 hours throughout the semester in the Math Center studying for the relevant course. Students can take this course again in subsequent semesters until 2.0 total units have been completed. Students must be concurrently enrolled in a pre-algebra-level course (MATH 30 - 39) in order to enroll in MATH 71. Placement into this Skills Lab can be made through student request, instructor recommendation, or an assessment process. This course is graded on a pass/no-pass basis.

MATH 72
Elementary Algebra Skills Lab  .25-2 Units
Prerequisite: None
Corequisite: MATH 100, 101, or 102
Hours: 108 hours LAB
This laboratory course provides the student with assistance in elementary algebra skills via enrollment in the campus’ Math Center. It is recommended for students who are encountering difficulties in the areas of math anxiety, basic skills, problem solving, algebraic manipulations and/or algebra concepts. Students may enter the Skills Lab course at any time during the first 12 weeks of the semester. It is recommended that the student register for 0.25 units. This recommended unit enrollment will require the student to spend a minimum of 13.5 hours throughout the semester in the Math Center studying for the relevant course. Students can take this course again in subsequent semesters until 2.0 total units have been completed. Students must be concurrently enrolled in an elementary algebra-level course (MATH 100 - 109) in order to enroll in MATH 72. Placement into this Skills Lab can be made through student request, instructor recommendation, or an assessment process. This course is graded on a pass/no-pass basis.

MATH 73
Intermediate Algebra/
Math Literacy Skills Lab  .25-2 Units
Prerequisite: None
Corequisite: MATH 120, 125, or 144
Hours: 108 hours LAB
This laboratory course provides the student with assistance in intermediate algebra skills via enrollment in the campus’ Math Center. It is recommended for students who are encountering difficulties in the areas of math anxiety, basic skills, problem solving, algebraic manipulations and/or intermediate algebra concepts. Students may enter the Skills Lab course at any time during the first 12 weeks of the semester. It is recommended that the student register for 0.25 units. This recommended unit enrollment will require the student to spend a minimum of 13.5 hours throughout the semester in the Math Center studying for the relevant course. Students can take this course again in subsequent semesters until 2.0 total units have been completed. Students must be concurrently enrolled in an intermediate algebra-level course (MATH 120 - 129), including any mathematical literacy course (MATH 140 - 149) in order to enroll in MATH 73. Placement into this Skills Lab can be made through student request, instructor recommendation, or an assessment process. This course is graded on a pass/no-pass basis.

MATH 74
Statistics/Geometry Skills Lab  .25-2 Units
Prerequisite: None
Corequisite: MATH 110 or STAT 300
Hours: 108 hours LAB
This laboratory course provides the student with assistance in statistics and/or geometry skills via enrollment in the campus’ Math Center. It is recommended for students who are encountering difficulties in the areas of math anxiety, basic skills, problem solving, algebraic manipulations, statistics and/or geometry concepts. Students may enter the Skills Lab course at any time during the first 12 weeks of the semester. It is recommended that the student register for 0.25 units. This recommended unit enrollment will require the student to spend a minimum of 13.5 hours throughout the semester in the Math Center studying for the relevant course. Students can take this course again in subsequent semesters until 2.0 total units have been completed. Students must be concurrently enrolled in a statistics (STAT 300) or Geometry (MATH 110) course in order to enroll in MATH 74. Placement into this Skills Lab can be made through student request, instructor recommendation, or an assessment process. This course is graded on a pass/no-pass basis.

MATH 75
Skills Lab for Miscellaneous Non-Transferable Math  .25-2 Units
Prerequisite: None
Hours: 108 hours LAB
This laboratory course provides the student with assistance in all non-transfer-level math courses via enrollment in the campus’ Math Center. It is recommended for students who are encountering difficulties in the areas of math anxiety, basic skills, problem solving, algebraic manipulations, and/or algebra concepts. Students may enter the Skills Lab course at any time during the first 12 weeks of the semester. It is recommended that the student register for 0.25 units. This recommended unit enrollment will require the student to spend a minimum of 13.5 hours throughout the semester in the Math Center studying for the relevant course. Students can take this course again in subsequent semesters until 2.0 total units have been completed. Students must be concurrently enrolled in a non-transferable math course (MATH 20 & 199) in order to enroll in MATH 75. MATH 75 should only be used as a Skills Lab if there is not already a relevant Skills Lab course available that better fits the student’s main math course. Placement into this Skills Lab can be made through student request, instructor recommendation, or an assessment process. This course is graded on a pass/no-pass basis.

MATH 76
Trigonometry/Precalculus Skills Lab  .25-2 Units
Prerequisite: None
Corequisite: MATH 335 or 370
Hours: 108 hours LAB
This laboratory course provides the student with assistance in trigonometry and/or precalculus (including college algebra) skills via enrollment in the campus’ Math Center. It is recommended for students who are encountering difficulties in the areas of math anxiety, advanced algebra skills, problem solving, trigonometric concepts, functions, graphs, etc. Students may enter the Skills Lab course at any time during the first 12 weeks of the semester. It is recommended that the student register for 0.25 units. This recommended unit enrollment will require the student to spend a minimum of 13.5 hours throughout the semester in the Math Center studying for the relevant course. Students can take this course again in subsequent semesters until 2.0 total units have been completed. Students must be concurrently enrolled in a trigonometry (MATH 335) or precalculus (MATH 370) course in order to enroll in MATH 76. Placement into this Skills Lab can be made through student request, instructor recommendation, or an assessment process. This course is graded on a pass/no-pass basis.
MATH 77
Calculus I/II Skills Lab .25-2 Units
Prerequisite: None
Corequisite: MATH 350, 351, 400, or 401
Hours: 108 hours LAB
This laboratory course provides the student with assistance in differential and/or integral calculus skills via enrollment in the campus’ Math Center. It is recommended for students who are encountering difficulties in the areas of math anxiety, advanced algebra skills, problem solving, calculus concepts, etc. Students may enter the Skills Lab course at any time during the first 12 weeks of the semester. It is recommended that the student register for 0.25 units. This recommended unit enrollment will require the student to spend a minimum of 13.5 hours throughout the semester in the Math Center studying for the relevant course. Students can take this course again in subsequent semesters until 2.0 total units have been completed. Students must be concurrently enrolled in a differential or integral calculus course (MATH 350, 351, 400 or 401) in order to enroll in MATH 77. Placement into this Skills Lab can be made through student request, instructor recommendation, or an assessment process. This course is graded on a pass/no-pass basis.

MATH 78
Calculus III/DE/Linear Algebra Skills Lab .25-2 Units
Prerequisite: None
Corequisite: MATH 402, 410, or 420
Hours: 108 hours LAB
This laboratory course provides the student with assistance in multi-variable calculus, differential equations, and linear algebra skills via enrollment in the campus’ Math Center. It is recommended for students who are encountering difficulties in the areas of math anxiety, advanced algebra skills, problem solving, calculus concepts, etc. Students may enter the Skills Lab course at any time during the first 12 weeks of the semester. It is recommended that the student register for 0.25 units. This recommended unit enrollment will require the student to spend a minimum of 13.5 hours throughout the semester in the Math Center studying for the relevant course. Students can take this course again in subsequent semesters until 2.0 total units have been completed. Students must be concurrently enrolled in a multi-variable calculus (MATH 402), linear algebra (MATH 410), or differential equations (MATH 420) course in order to enroll in MATH 78. Placement into this Skills Lab can be made through student request, instructor recommendation, or an assessment process. This course is graded on a pass/no-pass basis.

MATH 79
Skills Lab for Miscellaneous Transferable Math .25-2 Units
Prerequisite: None
Hours: 108 hours LAB
This laboratory course provides the student with assistance in all transfer-level math courses via enrollment in the campus’ Math Center. It is recommended for students who are encountering difficulties in the areas of math anxiety, advanced algebra skills, problem solving, trigonometry, calculus, etc. Students may enter the Skills Lab course at any time during the first 12 weeks of the semester. It is recommended that the student register for 0.25 units. This recommended unit enrollment will require the student to spend a minimum of 13.5 hours throughout the semester in the Math Center studying for the relevant course. Students can take this course again in subsequent semesters until 2.0 total units have been completed. Students must be concurrently enrolled in a transfer-level math course (MATH 300 and above) in order to enroll in MATH 79. MATH 79 should only be used as a Skills Lab if there is not already a relevant Skills Lab course available that better fits the student’s main math course. Placement into this Skills Lab can be made through student request, instructor recommendation, or an assessment process. This course is graded on a pass/no-pass basis.

MATH 81
Academic Skills in Mathematics .25-6 Units
Prerequisite: None
Hours: 324 hours LAB
This course is designed for students concurrently enrolled in MATH 20, 30, 100, 101, 110, 120, 125, or 144; 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 0.25 or 0.5 units. This course is graded on a pass/no-pass basis. MATH 81 is recommended for students who are encountering difficulties in the areas of math anxiety, basic skills, algebraic concepts or manipulation, graphing, problem solving, etc.

MATH 82
Academic Skills in Mathematics for Transfer Level .25-6 Units
Prerequisite: None
Hours: 324 hours LAB
This course is designed for students concurrently enrolled in MATH 300, MATH 310, MATH 315, MATH 335, MATH 341, MATH 343, MATH 344, MATH 350, MATH 351, MATH 370, MATH 400, MATH 401, MATH 402, MATH 410, MATH 420, or STAT 300. 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 0.25 or 0.5 units. This course is graded on a pass/no-pass basis. MATH 82 is recommended for students who are encountering difficulties in the areas of math anxiety, basic skills, algebraic concepts or manipulation, graphing, statistics, problem solving, etc.

MATH 83
Self Study Mathematics Modules .25-1 Units
Prerequisite: None
Hours: 54 hours LAB
The course enables students to review specific math topics which are necessary for success in MATH 20, MATH 30, MATH 100 or any course requiring the skills taught in these classes. Learning objectives and the course of study will be designed for each individual based on the needs of the student. A partial list of modules includes fractions, decimals, signed number arithmetic, percent, simplifying algebraic expressions, factoring, and solving linear equations. Modules cannot replace any existing mathematics course, and successful completion of MATH 83 currently does not satisfy any mathematics prerequisite. MATH 83 is a credit/no-credit class and students can enroll in the class at any time during the semester.

MATH 85
Math Study Skills 1 Unit
Prerequisite: None
Hours: 18 hours LEC
This course is designed to assist students in learning mathematics through the development of successful math study skills. This course addresses learning styles, how to read a math book, completing math homework assignments, how to take notes, how to prepare and take exams in a math class, and techniques for overcoming math anxiety.
MATH 100
Elementary Algebra 5 Units
Prerequisite: MATH 30 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
This course includes the fundamental concepts and operations of algebra with problem solving skills emphasized throughout. Topics include: properties of real numbers, linear equations and inequalities, integer exponents, polynomials, factoring polynomials. Rational expressions and equations, radical expressions and equations, rational exponents, systems of linear equations and inequalities, the rectangular coordinate system, graphs and equations of lines, and solving quadratic equations.

MATH 101
Elementary Algebra - Part I 2 Units
Prerequisite: MATH 30 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
Hours: 36 hours LEC
This course presents the fundamental concepts and operations of algebra with problem solving and critical thinking skills incorporated throughout. Topics include: review of properties of real numbers and signed numbers; algebraic expressions, solving linear equations and inequalities; solving linear systems of equations; graphing, properties of exponents; operations on polynomials.

MATH 102
Elementary Algebra - Part II 3 Units
Prerequisite: MATH 101 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
Hours: 54 hours LEC
A continuation of MATH 101, this course presents the fundamental concepts and operations of algebra with problem solving and critical thinking skills incorporated throughout. Topics covered include: factoring and applications; operations on rational expressions and solving rational equations; rectangular coordinate systems; graphing lines and linear inequalities; equation of lines; roots and radical expressions; solving quadratic equations; complex numbers; continued study of problem solving and applications.

MATH 110
Elementary Geometry 5 Units
Prerequisite: MATH 100 or 102 with a grade of "C" or better; or placement through the assessment process.
General Education: AA/AS Area II(b)
Hours: 90 hours LEC
This course introduces Euclidean Geometry. Topics include sets, definitions, postulates, theorems, deductive and inductive reasoning, proof, parallel lines, triangles, polygons, congruence, similarity, constructions, the Pythagorean Theorem, right triangle trigonometry, circles, analytic geometry, and elementary solid geometry.

MATH 120
Intermediate Algebra 5 Units
Prerequisite: MATH 100 or 102 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area II(b)
Hours: 90 hours LEC
This course reviews and extends the concepts of elementary algebra with problem solving skills emphasized throughout. Topics which are reviewed and extended include: linear and quadratic equations, factoring polynomials, rational expressions, exponents, radicals, equations of lines, and systems of equations. New topics include: graphs and their translations and reflections, functions, exponential and logarithmic functions, graphs of quadratic and simple polynomial functions, nonlinear systems of equations, quadratic inequalities, and an introduction to graph of circles.

MATH 125
Intermediate Algebra with Applications 4 Units
Prerequisite: MATH 100 or 102 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area II(b)
Hours: 72 hours LEC
This course is designed for the intermediate algebra student who plans to continue only into STAT 300, PSYC 330, MATH 300, MATH 310, or MATH 315. The course topics include linear behavior, functions and graphs, exponential and logarithmic functions, systems, and polynomial, rational exponents, operations on exponential and radical expressions and equations. This course will feature discovery activities and applications to real data sets and problems which are current and relevant.

MATH 144
Math for Contemporary Careers 3 Units
Prerequisite: MATH 100 or 102 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area II(b)
Hours: 54 hours LEC
In the current information age, what mathematics should every person know? This course examines the contributions of mathematics in today’s world. Students will explore mathematics’ on-going role in society beginning with the need for and development of number systems, logical thinking, and current processes for coding and decoding data. A major focus of the course will be contemporary methods for analyzing data and interpreting statistics to make informed decisions. Students will conclude the course by selecting a module of mathematical interest from a list of available topics drawn from vocational programs and contemporary careers such as automotive technology, construction technology, film, digital media and broadcasting, medical records, pharmacy technology or other emerging career fields.

MATH 295
Independent Studies in Mathematics 1-3 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

MATH 299
Experimental Offering in Mathematics .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB
MATH 300
Introduction to Mathematical Ideas 3 Units
Prerequisite: MATH 120 or 125 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area II(b); CSU Area B4; IGETC Area 2
Course Transferable to CSU
Hours: 54 hours LEC
Introduction to Mathematical Ideas allows liberal arts students to meet general education mathematics requirements while exploring concepts and objects of mathematics in a meaningful way. This course is designed to show some of the essence and quality of mathematics, and to enhance precision in the evaluation and expression of ideas, thereby developing a student's quantitative reasoning skills. It is recommended primarily for students who do not plan to major in a math-related field, but may be of interest to others as well. Course content may include topics from numeration systems, logic, geometry, probability, statistics, algebraic modeling, number theory, consumer mathematics, graph theory, voting and apportionment, and perhaps others; concepts of contemporary mathematics may be covered. Emphasis is placed on the deductive process.

MATH 310
Mathematical Discovery 3 Units
Prerequisite: MATH 110, MATH 112, or Geometry; AND MATH 120 or 125 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area II(b); CSU Area B4
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed to introduce students to the spirit of mathematics by involving them in the mathematical process of exploration, conjecture, and proof. Students will explore mathematical patterns and relations, formulate conjectures, and prove their conjectures. Areas of mathematics from which content may be derived include number theory, statistics, probability, geometry, and sequences and series. This course is recommended for students interested in a career in education.

MATH 315
Exploratory Field Experience in Mathematics 3 Units
Prerequisite: MATH 120 or 125 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area III(b)
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course is an education-based field experience in mathematics designed to allow students to explore learning styles, learning environments and learning methods as they apply to tutoring and teaching mathematics. While exploring teaching as a career choice, students will have the opportunity to learn and practice essential skills to motivate and assist younger students with their progress through the mathematics curriculum. Students will be assigned to area schools to observe and assist in a mathematics classroom and to work with selected students in structured one-on-one or group settings. Weekly seminars will allow students to share experiences and compare observations. Students will also have the opportunity to explore their own cognitive learning styles and consider how these learning styles relate to mathematics both as learner and as teacher. Students will have the opportunity to learn about social, cultural, and educational issues related to mathematics and the school environment. This course is recommended for students considering a major in teaching preparation who may wish to pursue either a multiple subject credential or a single subject credential in mathematics. Prior to beginning work in the schools, students may be required to be fingerprinted and pass a TB test. This course will be offered in Spring semester only.

MATH 335
Trigonometry with College Algebra 5 Units
Prerequisite: MATH 112, MATH 110, or Geometry; AND MATH 120; both with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area II(b); CSU Area B4
Course Transferable to CSU
Hours: 90 hours LEC
This is a full trigonometry course with algebra concepts reviewed, extended, and integrated when they are relevant to the trigonometric concepts. The trigonometric topics include right triangle trigonometry, unit circle trigonometry, graphs of trigonometric functions, proofs of trigonometric identities, solving trigonometric equations, applications of trigonometric functions (law of sines and cosines), and inverse trigonometric functions. The algebra topics include exponential and logarithmic functions, complex numbers, conic sections, the polar coordinate system, and solving equations, inequalities, and systems of equations.

MATH 341
Calculus for Business and Economics 4 Units
Prerequisite: MATH 120 with a grade of "C" or better; or equivalent skills demonstrated through the assessment.
General Education: AA/AS Area III(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 72 hours LEC
This course offers an introduction to the concepts and techniques of sets, functions, limits, analytic geometry and the differential and integral calculus. This course is intended for business students; it is not recommended for mathematics and physical science majors.

MATH 343
Modern Business Mathematics 4 Units
Prerequisite: MATH 120 with a grade of "C" or better; or equivalent skills demonstrated through the assessment.
General Education: AA/AS Area III(b); CSU Area B4
Course Transferable to CSU
Hours: 72 hours LEC
This course is designed around applications of mathematics in an economic and business context. The major topics included are function, finance (interest and exponential models), rates of change, optimization, and linear programming. 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.

MATH 344
Finite Mathematics 3 Units
Prerequisite: MATH 120 with a grade of "C" or better; or equivalent skills demonstrated through the assessment.
General Education: AA/AS Area III(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. This course will be offered in Spring semester only.
MATH 350
Calculus for the Life and Social Sciences I 3 Units
Prerequisite: MATH 335 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area l(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC
This course is an introduction to calculus. Topics include functions, trigonometric functions, limits, analytic geometry, and differential calculus with applications to business, social, and biological sciences. This course is intended for students majoring in social and biological sciences.

MATH 351
Calculus for the Life and Social Sciences II 3 Units
Prerequisite: MATH 350 with a grade of "C" or better
General Education: AA/AS Area l(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC
This course is a continuation of Math 350. Topics include: definite and indefinite integrals, power series, analytic geometry, multivariate calculus, and differential equations with applications to business, social, and biological sciences. Not open to students who have received credit for MATH 401 or higher level mathematics course.

MATH 370
Pre-Calculus Mathematics 5 Units
Prerequisite: MATH 335 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area l(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 90 hours LEC
This course is designed to prepare students for the calculus sequence (MATH 400, 401, 402). Course content includes a brief review followed by an in-depth extension of the properties of polynomial, rational, exponential, and logarithmic functions. Additional topics include systems of linear and non-linear equations and inequalities, conic sections, sequences and series, analytic geometry, vectors, parametric, and polar equations. A graphing calculator may be required for this course.

MATH 400
Calculus I 5 Units
Prerequisite: MATH 370 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area l(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 90 hours LEC
This course explores the basic concepts of analytic geometry, limits, derivatives, and integrals. Topics covered include the graphs, derivatives, and integrals of algebraic, trigonometric, exponential, logarithmic, and hyperbolic functions, and indeterminate forms. Many applications will be covered, including those involving rectilinear motion, differentials, related rates, graphing, and optimization. (C-ID MATH 210)

MATH 401
Calculus II 5 Units
Prerequisite: MATH 400 with a grade of "C" or better
General Education: AA/AS Area l(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 90 hours LEC
This course is a continuation of MATH 400. Topics covered include techniques of integration, numerical integration, improper integrals, infinite series, parametric equations, polar coordinates, and conic sections. Many applications will be covered including those involving areas between plane regions, volumes of revolution, work, moments and concepts of mass, average value, arc length, and surface area. (C-ID MATH 220)

MATH 402
Calculus III 5 Units
Prerequisite: MATH 401 with a grade of "C" or better
General Education: AA/AS Area l(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 90 hours LEC
This course extends the concepts of limits, derivatives and integrals to vector-valued functions and functions of more than one variable. Topics covered will include three-dimensional analytic geometry and vectors, partial derivatives, multiple integrals, line integrals, surface integrals, and the theorems of Green, Gauss (Divergence), and Stokes. Many applications of the calculus will be included.

MATH 410
Introduction to Linear Algebra 3 Units
Prerequisite: MATH 401 with a grade of "C" or better
Advisory: MATH 402 (may be taken concurrently)
General Education: AA/AS Area l(b); CSU Area B4
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course introduces linear algebra. Topics include matrices, determinants, systems of equations, vector spaces, linear transformations, eigenvectors, and applications. This course is intended for majors in mathematics, engineering, science, and related fields.

MATH 420
Differential Equations 4 Units
Prerequisite: MATH 401 with a grade of "C" or better
Advisory: MATH 402 (may be taken concurrently)
General Education: AA/AS Area l(b); CSU Area B4
Course Transferable to UC/CSU
Hours: 72 hours LEC
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.
MATH 480
Honors Seminar in Mathematics 1 Unit
Same As: HONOR 390
Prerequisite: MATH 370 with a grade of “C” or better
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 18 hours LEC

Honors Seminars in Mathematics are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. This particular course will study advanced topics from the area of mathematics and will be expected to do independent problem solving and present their solutions to the class. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as HONOR 390. This course, under either name, may be taken one time for credit. This course will be offered in spring semester only.

MATH 483
Honors Seminar in Mathematics - Introduction to Mathematical Proof 1 Unit
Same As: HONOR 391
Prerequisite: MATH 370 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 18 hours LEC

Honors Seminars in Mathematics are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. This particular course will study various methods of mathematical proof in a seminar setting, and will be particularly useful to students planning to study calculus, differential equations, and linear algebra. Topics include: deductive reasoning, proof by axioms, proofs of conditional and biconditional statements, proofs by contrapositive and contradiction, and proof by mathematical induction. Studies will include homework, discussions, oral presentations and lectures. Students will be expected to do independent problem solving and present their solutions to the class. Enrollment is limited to Honors Program students. This course is the same as HONOR 391. This course, under either name, may be taken one time for credit. This course will be offered in spring semester only.

MATH 484
Honors Seminar in Mathematics - Topics in Number Theory 1 unit
Same As: HONOR 382
Prerequisite: Math 370 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 18 hours LEC

Honors Seminars in Mathematics are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. This particular course will study various topics in the field of number theory in a seminar setting. Topics include: the integers and their properties; finding integer solutions to Diophantine equations (equations with more variables than equations); and cryptography (the study of how secret codes are created and broken). Studies will include homework, discussions, oral presentations and lectures. Students will be expected to do independent problem solving and present their solutions to the class. Enrollment is limited to Honors Program students. This course is the same as HONOR 392. This course, under either name, may be taken one time for credit. This course will be offered in spring semester only.

MATH 495
Independent Studies in Mathematics 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB

An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. The CRC website. This course is the same as HONOR 390. This course, under either name, may be taken one time for credit. This course will be offered in spring semester only.

MATH 499
Experimental Offering in Mathematics .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 36 hours LEC; 54 hours LAB

STATISTICS (STAT)

STAT 300
Introduction to Probability and Statistics 4 Units
Prerequisite: MATH 120 or 125 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area I(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 72 hours LEC

This course is an introduction to probability and statistics. Topics include: elementary principles and applications of descriptive statistics, counting principles, elementary probability principles, probability distributions, estimation of parameters, hypothesis testing, linear regression and correlation, and ANOVA. Scientific calculators with two-variable statistics capabilities may be required.

STAT 495
Independent Studies in Statistics 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB

An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. The CRC website. This course is the same as HONOR 390. This course, under either name, may be taken one time for credit. This course will be offered in spring semester only.

STAT 499
Experimental Offering in Statistics .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
Applying Advanced Placement (AP) to Meet CRC Statistics and/or Calculus Requirements

Cosumnes River College awards Advanced Placement (AP) credit for CRC mathematics and statistics courses according to the table below. Please be advised that AP credit given at CRC does not automatically transfer to a four-year college or university, because limitations may apply; a student must submit his or her official AP score report(s) to the transfer institution for review. Please consult a CRC counselor before submitting your AP test scores for CRC course credit evaluation to discuss your plans for transfer.

<table>
<thead>
<tr>
<th>AP Score (or equivalent sub-score)</th>
<th>CRC Course Equivalent</th>
<th>CRC Units Credited</th>
<th>AP Score Serves as the Prerequisite for this CRC course*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistics: 3, 4 or 5</td>
<td>Stat 300</td>
<td>4 units</td>
<td>N/A</td>
</tr>
<tr>
<td>Calculus AB:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Math 341</td>
<td>3 units</td>
<td>Math 400</td>
</tr>
<tr>
<td>4</td>
<td>Math 350</td>
<td>3 units</td>
<td>Math 351 or Math 400</td>
</tr>
<tr>
<td>5</td>
<td>Math 400</td>
<td>5 units</td>
<td>Math 401</td>
</tr>
<tr>
<td>Calculus BC: 3</td>
<td>Math 350 or 341</td>
<td>3 units</td>
<td>Math 351</td>
</tr>
<tr>
<td>Calculus BC: 4 or 5</td>
<td>Math 350 &amp; 351</td>
<td>6 units</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Math 400 &amp; 401</td>
<td>10 units</td>
<td>Math 402</td>
</tr>
</tbody>
</table>

* You must see a CRC counselor for approval

N/A – not applicable

Statistics Students who plan to use AP scores to meet requirements at CRC and a transfer institution are strongly encouraged to determine the requirements of their transfer institution as early as possible, since not all transfer institutions honor the same AP scores as CRC.

Calculus Students who plan to use AP scores to satisfy either the Math 400 or Math 401 requirement are advised that many students often struggle when they take the next level course (Math 402). Some AP course preparation focuses on the specific skills needed to pass the AP test, with minimal time left to develop the general conceptual framework of calculus. In addition, there are essential topics missing in the Calculus AB curriculum, including:

- The delta-epsilon definition of a limit and delta-epsilon proofs
- L’Hôpital’s Rule,
- Indeterminate forms for limits
- Hyperbolic functions.

Therefore, students may want to discuss this issue with a mathematics professor before registering for math classes.

Meeting CRC Math and Statistics Requirements
When AP Credit Will Not Be Applied

Students who are not using AP credit in place of a required math course are encouraged to take math courses early in their college career, while their algebra and/or statistics backgrounds are more recent.

Many majors (such as computer science, business, psychology, and biology) require statistics at the upper division level after transfer, so a strong first course in statistics is valuable.
CRC MATH TREE

MATH 20 – Arithmetic (5 units)
(non-degree applicable; non-transferable)

MATH 30 – Pre-Algebra (5 units)
(non-degree applicable; non-transferable)

***MATH 100 – Elementary Algebra (5 units)
(degree-applicable as an elective only; non-transferable)
Math 100 = Math 101 + Math 102

***MATH 101 – Elementary Algebra – Part I (2 units)
(degree applicable as elective units if MATH 102 is completed; non-transferable)

***MATH 102 – Elementary Algebra – Part II (3 units)
(degree applicable as an elective only; non-transferable)

All of these courses meet AA / AS Graduation Competency
Correct math sequence depends on major. See a counselor *

MATH 144 (3 units)
Math for Contemporary Careers

MATH 125 (4 units) or MATH 120 (5 units)
Intermediate Algebra with Applications or Intermediate Algebra

MATH 110 (5 units)
Elem. Geometry
Unless Geometry is on HS or College transcript

MATH 120 (5 units)
Intermediate Algebra

Transferable math courses for other majors **

MATH 300 (3 units)
Math Ideas (CSU / UC)

or

STAT 300 (4 units)
Intro to Probability & Statistics (CSU / UC)

or

MATH 315 (3 units)
Exploratory Field Experience (CSU / UC)

SPRING ONLY

CSU Sacramento Liberal Studies
(Teaching Credential)

Transfer students with Architecture, CIS, Engineering, Math, Preprofessional or Science majors

MATH 310 (3 units)
Math Discovery (CSU)

MATH 335 (5 units)
Trigonometry with College Algebra (CSU)

MATH 343 (4 units)
Modern Business Mathematics (CSU)

or

MATH 370 (5 units)
Pre-Calculus Math (CSU / UC)

MATH 350 (3 units)
Calculus for the Life & Social Sciences I (CSU / UC)

MATH 341 (4 units)
Calculus for Business & Economics (CSU / UC)

or

MATH 400 (5 units)
Calculus I (Engineering Calc.) (CSU / UC)

MATH 351 (3 units)
Calculus for the Life & Social Sciences II (CSU / UC)

MATH 344 (3 units)
Finite Mathematics (CSU / UC)

SPRING ONLY

MATH 401 (5 units)
Calculus II (Engineering Calc.) (CSU / UC)

MATH 420 (4 units)
Differential Equations (CSU / UC)

MATH 402 (5 units)
Calculus III (Engineering Calc.) (CSU / UC)

advised may be concurrent

MATH 410 (3 units)
Intro to Linear Algebra (CSU / UC)

* Transfer Students unsure of major should take MATH 120
** See counselor for correct math requirements
*** MATH 100, 101, 102 – These courses do not meet Math competency for graduation. Students with 2008-09 Catalog rights or earlier should see a counselor about these courses.
Degree

A.S. — Medical Assisting

CERTIFICATES OF ACHIEVEMENT

Medical Assisting
Medical Assisting, Administrative

CERTIFICATE OF PROFICIENCY

Medical Assisting, Medical Insurance Billing

Program Description

The CRC Medical Assisting program is designed to prepare students for careers as Medical Assistants in private, state and federal medical offices. Upon completion of an AS degree or certificate in Medical Assisting, students may take the certification exam administered by the Commission on Accreditation of Allied Health Education programs (CAAHEP) on recommendation of the Medical Assisting Educational Review Board (MAERB) of the American Association of Medical Assistants (AAMA).

Career Opportunities

Administrative Medical Assistant
Clinical Medical Assistant
Insurance Billing Specialist

Highlights

• Employment is projected to grow much faster than average, ranking medical assistants among the fastest growing occupations over the 2008–18 decade.
• Eligibility to become members of AAMA and California Society of Medical Assistants (CSMA).
• Accredited preparation for national board exams; CRC students have exceeded national averages in the top 5 percent consistently for the past 20 years.
• Transfer opportunities leading to degrees in Health Services or Health Care Administration.
• Provides multiple skills for the entry-level health care professional.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

Degree

A.S.—Medical Assisting

CODE #1184

Enrollment Eligibility:

To be eligible for enrollment in the program, the student must meet the following criteria:

Completion of the following pre-requisite courses with a C or better:

• AH 110 — Medical Language
• BIOL 102 — Essentials of Human Anatomy and Physiology (BIOL 100 or 430 & 431 are acceptable)
• CISC 302 — Computer Familiarization
• ENGWR 101 — or eligibility for ENGWR 300 as determined by assessment testing
• MEDA 100 — Introduction to Medical Assisting

Enrollment Process:

Eligible students are selected for the program according to the following steps:

• Only students who meet the pre-enrollment requirements will be considered for the program.
• Selection will be based on a random selection process, should the number of qualified applicants exceed available spaces in the program.
• Accepted applicants will be notified by the Program Director by July 1.
• Students will be required to perform a background and drug clearance screening. Students will also be required to show proof of vaccination or immunity to the following: measles, rubella, rubella, varicella, Tdap® and possibly influenza. Placement in a clinical location will be contingent upon the results of this screening.

REQUIRED PROGRAM.......................................................... Units

Fall Semester:
MEDA 124 Administrative Medical Assisting ....................... 3
COMM 325 Intercultural Communication (3)....................... 3
AH 124 Pharmacology for the Health Care Professional........ 2
PSYC 300 General Principles (3).................................... 3

Spring Semester:
FCS 324 Human Development: A Life Span ..................... 3
AH 120 Human Disease............................................. 3
MEDA 230 Clinical Procedures .................................... 5

Capstone Course:
MEDA 140 Medical Assisting Practicum.......................... 3

Total Units Required: .................................................. 25

1 may be taken either fall or spring semester
2 may be taken either fall or spring semester
3 may be taken either fall or spring semester
4 This is the capstone course and should be taken last. Students must fulfill all requirements set forth by the CRC Allied Health Practicum Guidelines including but not limited to: background clearance, physical examination, immunization clearance and drug screening.

Associate in Science Degree

The Medical Assisting Associate in Science (A.S.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF ACHIEVEMENT
Medical Assisting
CODE #1184

Enrollment Eligibility:
To be eligible for enrollment in the program, the student must meet the following criteria:

- Completion of the following pre-requisite courses with a C or better:
  - AH 110 – Medical Language
  - BIOL 102 – Essentials of Human Anatomy and Physiology
  - CISC 302 – Computer Familiarization
  - MEDA 100 – Introduction to Medical Assisting

Enrollment Process:
Eligible students are selected for the program according to the following steps:

- Only students who meet the pre-enrollment requirements will be considered for the program.
- Selection will be based on a random selection process, should the number of qualified applicants exceed available spaces in the program.
- Accepted applicants will be notified by the Program Director by July 1.
- Students will be required to perform a background and drug clearance screening. Students will also be required to show proof of vaccination or immunity to the following: Measles, rubella, rubela, varicella, TDaP, and possibly influenza. Placement in a clinical location will be contingent upon the results of this screening.

REQUIRED PROGRAM....................................................... Units

Fall Semester:
- MEDA 124 Administrative Medical Assisting ..................... 3
- COMM 325 Intercultural Communication (3) ....................... 3¹
- AH 124 Pharmacology for the Health Care Professional ...... 2
- PSYC 300 General Principles (3) ................................. 3²

Spring Semester:
- FCS 324 Human Development: A Life Span .................. 3³
- AH 120 Human Disease ............................................. 3
- MEDA 230 Clinical Procedures .................................. 5

Capstone Course:
- MEDA 140 Medical Assisting Practicum .......................... 3⁴

TOTAL UNITS REQUIRED: ........................................ 25

¹ may be taken either fall or spring semester
² may be taken either fall or spring semester
³ may be taken either fall or spring semester
⁴ This is the capstone course and should be taken last. Students must fulfill all requirements set forth by the CRC Allied Health Practicum Guidelines including but not limited to: background clearance, physical examination, immunization clearance and drug screening.

CERTIFICATE OF ACHIEVEMENT
Medical Assisting, Administrative
CODE #1185

This curriculum is designed to prepare the individual with front office skills for employment as an Administrative Medical Assistant in a physician’s office, hospitals, clinics, laboratories, pharmaceutical companies, health and accident insurance companies, and to teach related duties essential to administrative medical assisting.

REQUIRED PROGRAM....................................................... Units

Prior to Admission to Program:
- AH 110 Medical Language for Health-Care Providers ........ 3
- BIOL 102 Essentials of Human Anatomy and Physiology .. 4
- CISC 302 Computer Familiarization ................................ 2
- MEDA 100 Introduction to Medical Assisting .................. 1.5
- ENGWR 101 College Writing ....................................... 4¹

Fall Semester:
- AH 108 Introduction to Allied Health ............................. 1
- MEDA 110 Medical Insurance Procedures ....................... 1.5
- MEDA 124 Administrative Medical Assisting .................. 3
- AH 120 Human Disease ............................................. 3

TOTAL REQUIRED UNITS..................................................... 23

¹ Or eligibility for ENGWR 300 as demonstrated through the assessment process.

CERTIFICATE OF PROFICIENCY
Medical Assisting, Medical Insurance Billing
CODE #1550

The CRC Medical Insurance Billing certificate program is designed to prepare students for entry-level positions in insurance billing in an ambulatory medical office setting. The curriculum is designed to give students the desired skills for employment in a physician’s office or other ambulatory clinic.

REQUIRED PROGRAM....................................................... Units

Prior to Admission to Program:
- AH 110 Medical Language for Health-Care Providers ........ 3
- AH 120 Human Disease ............................................. 3
- AH 124 Pharmacology for the Health Care Professional .... 2
- BIOL 100 Introduction to Concepts of Human Anatomy and Physiology ............................................. 3
- HIT 120 Basic ICD-CM Coding .................................. 2
- MEDA 110 Medical Insurance Procedures ....................... 1.5

TOTAL UNITS REQUIRED: ............................................. 16.5
MEDICAL ASSISTING (MEDA)

MEDA 100
Introduction to Medical Assisting 1.5 Units
Prerequisite: None
Hours: 27 hours LEC
This course provides an introduction to the field of Medical Assisting. Students will learn the medical assisting scope of practice, typical duties of an administrative and clinical MA, including career ladders and types of facilities that employ medical assistants. Students will also be introduced to the legal concepts and ethical issues that may be encountered in the field of medical assisting.

MEDA 110
Medical Insurance Procedures 1.5 Units
Prerequisite: None
Corequisite: AH 110
Hours: 27 hours LEC
This course will introduce students to the basics of medical office insurance billing. Students will learn the terminology of health insurance, the differences between the various forms of health insurance, as well as the process for patient billing in a medical office setting.

MEDA 124
Administrative Medical Assisting 3 Units
Prerequisite: None
Enrollment Limitation: Acceptance in to the CRC Medical Assisting Program
Hours: 36 hours LEC; 54 hours LAB
This course is designed to introduce the medical assisting student to the administrative responsibilities encountered in an ambulatory clinic. Typical administrative topics covered include patient reception, scheduling, telephone procedures, documentation and reporting, records management including HIPAA regulations, screening/processing mail, equipment and supply inventory, practice finances, coding and bookkeeping principles.

MEDA 140
Medical Assisting Practicum 3 Units
Prerequisite: COMM 325, FCS 324, MEDA 230, and PSYC 300 with grades of “C” or better; Students must have been accepted in to the CRC Medical Assisting program and completed all required courses prior to receiving consent to enroll in this capstone course. Students must also have completed a drug screen, background clearance and have proof of immunity to varicella, measles, rubella, rubeola.
Enrollment Limitation: Students must have on file with the Program Director the following documents: Negative PPD or Chest x-ray no more than 6 months prior to clinic placement; MMR and Varicella immunity status; Liability insurance
Hours: 180 hours LAB
This course consists of supervised experience in a health care setting performing the tasks and responsibilities of a medical assistant. Those duties include, but are not limited to, administering injections, performing electrocardiograms, obtaining patient history and chief complaints, scheduling appointments, answering telephones, basic clerical functions and other duties as requested by site physician and/or supervisor. Students will be required to show proof of immunity to Varicella, Measles, Mumps, Rubella and TB prior to beginning the clinical rotation. Students will also have supplementary requirements such as liability insurance, background check and drug screening. This course is for students who have completed all of the CRC Medical Assisting Program requirements.

MEDA 230
Clinical Procedures 5 Units
Prerequisite: MEDA 124 with a grade of “C” or better
Corequisite: AH 120 and 124
Enrollment Limitation: Student must be accepted in to the CRC Medical Assisting program to enroll in this course.
Hours: 36 hours LEC; 162 hours LAB
This course will instruct the student in the clinical procedures performed by entry-level Medical Assistants according to AAMA standards and the Medical Assisting Scope of Practice.

MEDA 295
Independent Studies in Medical Assisting 1-3 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

MEDA 298
Work Experience in Medical Assisting 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Student must be in a paid or unpaid internship, volunteer position or job related to career goals in Medical Assisting.
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in associate degree level or certificate occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

MEDA 299
Experimental Offering in Medical Assisting .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

Medical Assisting

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302 | Medical Assisting

Cosumnes River College 2014–2015
**DEGREE**

A.A. — Music, General

**Program Description**

The CRC music program includes vocal and instrumental components as well as courses on music, history theory and electronic music. 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 Opportunities**

- Music Education
- Public and Private Teaching
- Vocal Performance
- Instrumental Performance
- Music Store Employment & Management
- Church Music Direction
- Composer

Some Career Opportunities may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some Career Opportunities 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 band, concert band
- Annual performance tours
- A very talented and highly motivated staff

**NOTE TO TRANSFER STUDENTS:**

If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see [www.crc.losrios.edu/pslo](http://www.crc.losrios.edu/pslo)

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## DEGREE

### A.A. — Music, General

**CODE #1196**

### 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>MUFHL 310</td>
<td>Survey of Music History and Literature</td>
<td>3</td>
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<tr>
<td>MUFHL 400</td>
<td>Music Theory</td>
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<tr>
<td>MUFHL 410</td>
<td>Advanced Music Theory</td>
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<td>4</td>
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<tr>
<td>MUIVI 340</td>
<td>Beginning Piano</td>
<td>2</td>
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<td>2</td>
</tr>
</tbody>
</table>

**Applied Music Study**

Eight (8) units from one selected field: ........................................ 8

- Instrumental Majors: MUIVI 370, 371, 410, 495
- Keyboard Majors: MUIVI 340, 341, 350, 351, 410, 495
- Voice Majors: MUIVI 310, 311, 320, 321, 410, 495

**Music Performance Group * **

Eight (8) units from one selected field: ........................................ 8

- Instrumental Major: MUP 310, 320, 330, 350, 357, 360; MUIVI 370, 371
- Keyboard Major: MUP 320, 330, 350, 357
- Voice Major: MUP 350, 357, 360

* NOTE: All music majors are required to enroll in at least one music performance course each semester they are enrolled.

### TOTAL UNITS REQUIRED

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**Suggested Electives:**

- ARTH 300; HUM 300 or 310; MUFHL 300, MUSM 370; any additional music courses; PHIL 300; TA 300, 350

**Associate Degree**

The Music, General Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
MUSIC FUNDAMENTALS, HISTORY & LITERATURE (MUFHL)

MUFHL 300
Introduction to Music  3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC
A brief study of the development of music from the middle ages to music of today, emphasizing the relation of music to the social, cultural, economic and political factors which produced it. Learn 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 and for those who are particularly interested in the humanities or the arts.

MUFHL 308
Introduction to Music: Rock & Roll  3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

MUFHL 310
Survey of Music History and Literature  3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

MUFHL 311
Survey of Music History and Literature  3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
A detailed study of the development of music 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.

MUFHL 315
Jazz History  3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an historical, comprehensive, and comparative listeners survey of the traditions of Jazz music from 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 African and early African-American musical traditions have led to the development of various improvisational forms and styles, including Ragtime, Swing, Bebop, Free Jazz, Fusion, and Acid Jazz. Jazz style of the Americas, Asia, Africa, India, and Europe will be covered.

MUFHL 321
Basic Musicianship  3 Units
Prerequisite: None
General Education: CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC
This course is designed as an starting point for students with limited musical experience or for those wishing a basic course prior to enrollment in MUFHL 400. The course concentrates on 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.

MUFHL 330
World Music  3 Units
Prerequisite: None
General Education: AA/AS Area I; AA/AS Area V; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

MUFHL 400
Music Theory  4 Units
Prerequisite: None
Corequisite: MUIVI 340
General Education: CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course is the study of scales, intervals, triads, diatonic harmonies, part writing, rhythms, sight singing, ear training, dictation, history and performance. Analysis and composition will be taught. Reading music is a requirement for this course. This course is required for music majors.
MUFHL 401
Music Theory I
4 Units
Prerequisite: MUFHL 400 with a grade of "C" or better.
Corequisite: MUIVI 341.
Course Transferable to UC-CSU
Hours: 54 hours LEC, 54 hours LAB
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.

MUFHL 402
Music Theory II
3 Units
Prerequisite: None
Enrollment Limitation: Basic piano proficiency is required for this course. Proficiency may be demonstrated by audition or concurrent enrollment in MUIVI 340.
Course Transferable to CSU
Hours: 54 hours LEC
This course, through guided composition and analysis, incorporates the following concepts: rhythm and meter; basic properties of sound; intervals; diatonic scales and triads; diatonic chords, basic cadential formulas and phrase structure; dominant seventh; figured bass symbols; and non-harmonic tones. Development of skills in handwritten notation and computer notation is expected. The ability to read music is required for this course. Basic piano proficiency is required and may be passed by exam or concurrent enrollment in MUIVI 340 (Beginning Piano). This course is required for the AA and AA-T degrees in music.

MUFHL 403
Music Theory III
1 Unit
Prerequisite: None
Advisory: MUFHL 402; Skills developed concurrently in Music Theory I (MUFHL 402) and in Beginning Piano (MUIVI 340) are advised for success in Music Theory II (MUFHL 403).
Course Transferable to CSU
Hours: 54 hours LAB
This course applies and develops the rhythmic, melodic, and harmonic materials of Music Theory I through ear training, sight singing, analysis, and dictation.

MUFHL 404
Music Theory IV
3 Units
Prerequisite: MUFHL 402 with a grade of "C" or better
Enrollment Limitation: Basic piano proficiency is required for this course. Proficiency may be demonstrated by audition or concurrent enrollment in MUIVI 341.
Course Transferable to CSU
Hours: 54 hours LEC
This course incorporates the concepts from Music Theory I. In addition, through guided composition and analysis, the course will include: an introduction to two-part counterpoint; voice leading involving four-part chorale writing; diatonic harmony; and an introduction to secondary/ applied chords and modulation. Basic piano proficiency is required and may be passed by exam or concurrent enrollment in MUIVI 341. The course is required for the AA and AA-T degrees in Music.

MUFHL 405
Music Theory II
1 Unit
Prerequisite: MUFHL 402 and 403 with grades of "C" or better
Advisory: MUFHL 404 and MUIVI 341; Skills developed concurrently in Music Theory II (MUFHL 404) and Piano II (MUIVI 341) are advised for success in Music Theory II (MUFHL 405).
Course Transferable to CSU
Hours: 54 hours LAB
This course applies and develops the rhythmic, melodic, and harmonic materials of Music Theory II through ear training, sight singing, analysis, and dictation.

MUFHL 410
Advanced Music Theory
4 Units
Prerequisite: MUFHL 401 with a grade of "C" or better
Corequisite: MUIVI 350 or 351
Course Transferable to UC-CSU
Hours: 54 hours LEC; 54 hours LAB
This is the third course of a four course cycle. This course focuses on the study of scales, intervals, triads, seventh chords, diatonic harmonies, part writing, phrase structures, cadences, non-harmonic tones, harmonic progressions, harmonization, rhythms, sight singing, ear training, dictation, history and performance. Analysis and composition skills will be taught. Required for music majors. Students may wish to challenge the prerequisite on the basis of equivalent experience. This course is required for music majors.

MUFHL 411
Advanced Music Theory
4 Units
Prerequisite: MUFHL 410 with a grade of "C" or better
Advisory: Concurrent enrollment in MUIVI 351
Course Transferable to UC-CSU
Hours: 54 hours LEC; 54 hours LAB
This is the fourth course of a four course cycle. This course focuses on techniques used in the 19th century to the beginning of the 20th century and includes techniques used in the baroque through impressionist eras. Major topics include borrowed chords; augmented sixth chords; Neapolitan sixth chords; altered dominants; altered diminished seventh chords; chromatic mediants; modulation to foreign keys; and ninth, eleventh and thirteenth chords. Analysis and composition skills will be taught. Music major, skills will be taught including sight singing and ear training of advanced rhythms, melodies and harmonic progressions. This course is required for music majors.

MUFHL 412
Advanced Music Theory
3 Units
Prerequisite: MUFHL 404 with a grade of "C" or better
Course Transferable to CSU
Hours: 54 hours LEC
This course incorporates the concepts from Music Theory II. In addition, through writing and analysis, the course will include: introduction to chromatic harmony; secondary/applied chords; modulation; borrowed chords; introduction to Neapolitan and augmented-sixth chords. This course is required for the AA and AA-T degree in music.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites/Advisory</th>
<th>Course Transferable to</th>
<th>Hours</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUFHL 413</td>
<td>Musicianship III</td>
<td>1</td>
<td>MUFHL 404 and 405 with grades of “C” or better</td>
<td>CSU</td>
<td>54</td>
<td>This course applies and develops the rhythmic, melodic, and harmonic materials of Music Theory III through ear training, sight singing, analysis, and dictation.</td>
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<tr>
<td>MUFHL 414</td>
<td>Music Theory IV</td>
<td>3</td>
<td>MUFHL 412 with a grade of “C” or better</td>
<td>CSU</td>
<td>54</td>
<td>This course incorporates the concepts from Music Theory III. In addition, through writing and analysis, the course will include: post-Romantic techniques such as borrowed chords and modal mixture, chromatic mediants, Neapolitan and augmented-sixth chords, 9th, 11th and 13th chords, altered chords and dominants; and 20th century techniques such as: Impressionism, tone rows, set theory, pandiatonicism and polytonalism, meter and rhythm.</td>
</tr>
<tr>
<td>MUFHL 415</td>
<td>Musicianship IV</td>
<td>1</td>
<td>MUFHL 412 with a grade of “C” or better</td>
<td>CSU</td>
<td>54</td>
<td>This course applies and develops the rhythmic, melodic, and harmonic materials of Music Theory IV through ear training, sight singing, analysis, and dictation.</td>
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<tr>
<td>MUFHL 420</td>
<td>Beginning Jazz Theory</td>
<td>2</td>
<td>MUFHL 401 with a grade of “C” or better</td>
<td>UC/CSU</td>
<td>27</td>
<td>This course introduces the elements of jazz theory including harmonic, melodic and formal analysis in the jazz idiom.</td>
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<tr>
<td>MUFHL 421</td>
<td>Advanced Jazz Theory</td>
<td>2</td>
<td>MUFHL 420 with a grade of “C” or better</td>
<td>UC/CSU</td>
<td>27</td>
<td>This course provides a continuation of jazz concepts presented in MUFHL 420. The emphasis will be advanced elements of jazz theory including harmonic, melodic and formal analysis in the jazz idiom.</td>
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</tbody>
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Voice Class, Intermediate  
MUIVI 310  
Voice Class  2 Units  
Prerequisite: None  
General Education: CSU Area C1  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 18 hours LAB  
Students will experience basic training in the correct use of the singing voice, vocal techniques, and repertoire. This course is required for vocal majors, but open to all students desiring to begin the study of voice.

Voice Class  2 Units  
Prerequisite: MUIVI 310 with a grade of “C” or better  
General Education: CSU Area C1  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 18 hours LAB  
Students will experience basic training in the correct use of the singing voice, vocal techniques, and repertoire. This course is required for vocal majors, but open to all students desiring to begin the study of voice.

Voice Class, Intermediate  2 Units  
Prerequisite: MUIVI 311 with a grade of “C” or better  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 18 hours LAB  
This course provides opportunity for vocal exercise and intellectual analysis in the development of efficient singing technique and skill in performing vocal literature. Performance in class and in recital is essential. The course is required for vocal majors. Students may wish to challenge the prerequisite on the basis of equivalent experience.

Voice Class, Intermediate  2 Units  
Prerequisite: MUIVI 320 with a grade of “C” or better  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 18 hours LAB  
This course provides opportunity for vocal exercise and intellectual analysis in the development of efficient singing technique and skill in performing vocal literature. Performance in class and in recital is essential. The course is required for vocal majors. Students may wish to challenge the prerequisite on the basis of equivalent experience.

Beginning Piano  2 Units  
Prerequisite: None  
General Education: CSU Area C1  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 18 hours LAB  
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.
MUIVI 370
**Beginning Guitar**
Prerequisite: None
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
Beginning instruction on the guitar with emphasis on the fundamentals of music as well as basic guitar chord technique and accompaniment figurations.

MUIVI 371
**Intermediate Guitar**
Prerequisite: MUIVI 370 with a grade of “C” or better
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 36 hours LEC; 18 hours LAB
A continuation of MUIVI 370 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.

MUIVI 385
**Jazz Styles and Improvisation**
Prerequisite: None
Advisory: Ability to play a melodic instrument or ability to sing; ability to read music.
Course Transferable to UC/CSU
Hours: 27 hours LEC; 27 hours LAB
This course is the study of instrumental and vocal application of jazz improvisation.

MUIVI 386
**Jazz Styles and Improvisation**
Prerequisite: MUIVI 385 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 27 hours LEC; 27 hours LAB
This course is the study of advanced instrumental and vocal applications of jazz improvisation.

MUIVI 410
**Applied Music**
Prerequisite: None
Corequisite: MUFHL 402, 404, 412, or 414; Select one large performing ensemble from the following: MUP 310, MUP 312, MUP 330, MUP 335, MUP 357, MUP 358, MUP 360, or MUP 362.
Enrollment Limitation: Audition required.
Course Transferable to UC/CSU
Hours: 18 hours LEC
This course consists of individualized study of the appropriate techniques and repertoire for the specific instrument or voice being studied. The emphasis is on the progressive development of skills needed for solo performance. The course involves instrumental or vocal study requiring a minimum of one-half hour per week of individual study through one-on-one instruction for a minimum of 18 weeks. The course also meets one hour per week on campus for instruction and performance. This course may be repeated to meet the major requirement for transfer to CSU, Sacramento, or to other universities with a similar transfer requirement.

MUIVI 495
**Independent Studies in Music Instrumental/Voice Instruction**
Prerequisite: None
General Education: CSU Area C1
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 18-54 hours LEC
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies. This independent study course is 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. The course may also be designed for students interested in developing tutorial and/or instrumental skills.

MUIVI 499
**Experimental Offering in Music Instrumental/Voice Instruction**
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
MUSIC PERFORMANCE (MUP)

MUP 310
Orchestra 2 Units
Prerequisite: None
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course covers the study and performance of orchestral music. It is open to all students who read music and perform on an orchestral instrument (violin, viola, cello, bass, piccolo, flute, clarinet, double reed, trumpet, french horn, trombone, or percussion.) This course includes public performances and field trips, and meets requirements for music majors and minors. Students study and perform music literature composed for string orchestra and symphony orchestra. This course may be repeated to meet the major requirement for transfer to CSU, Sacramento, or to other universities with a similar transfer requirement. Students may be required to provide their own instruments.

MUP 312
Orchestra 1 Unit
Prerequisite: None
Enrollment Limitation: Students will be admitted to this course by audition only. Audition times and dates will be announced by the department.
Course Transferable to CSU
Hours: 9 hours LEC; 27 hours LAB
This course covers the study and performance of orchestral music. It is open to all students who read music and perform on an orchestral instrument (violin, viola, cello, bass, piccolo, flute, clarinet, double reed, trumpet, french horn, trombone, or percussion.) This course includes public performances and field trips, and meets requirements for music majors and minors. Students study and perform music literature composed for string orchestra and symphony orchestra. This course may be repeated to meet the major requirement for transfer to CSU, Sacramento, or to other universities with a similar transfer requirement. Students may be required to provide their own instruments.

MUP 320
Jazz Band 2 Units
Prerequisite: None
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course includes the study and performance of jazz including stage routines and special arrangements. Public performances are required. This course may be repeated to meet the major requirement for transfer to CSU, Long Beach, or to other universities with a similar transfer requirement.

MUP 321
Advanced Jazz Band 1-2 Units
Prerequisite: MUP 320 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 108 hours LAB
This course is for the continuing study and performance of Jazz Band repertoire. Additional topics include rehearsal technique and improvisation. Public performance and field trips are required. Performance participation will be by audition. This course may be taken a maximum of four times to meet the major requirement for transfer to CSU, Long Beach, or to other universities with a similar transfer requirement.

MUP 330
Concert Band 2 Units
Prerequisite: None
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course covers the study and performance of concert band music. It is open to students who read music and perform on a concert band instrument (piccolo, flute, clarinet, double reed, saxophone, trumpet, french horn, trombone, euphonium, baritone, tuba, string bass or percussion). This course includes public performances and field trips, and meets requirements for music majors and minors. Students study and perform music literature composed for concert band. This course may be repeated to meet the major requirement for transfer to CSU, Sacramento, or to other universities with a similar transfer requirement. Students may be required to provide their own instruments.

MUP 335
Concert Band 1 Unit
Prerequisite: None
Enrollment Limitation: Audition will be required for admission to this course. Audition times and dates will be announced by the department.
Course Transferable to CSU
Hours: 9 hours LEC; 27 hours LAB
This course covers the study and performance of concert band music. It is open to students who read music and perform on a concert band instrument (piccolo, flute, clarinet, double reed, saxophone, trumpet, french horn, trombone, euphonium, baritone, tuba, string bass or percussion). This course includes public performances and field trips, and meets requirements for music majors and minors. Students study and perform music literature composed for concert band. This course may be repeated to meet the major requirement for transfer to CSU, Sacramento, or to other universities with a similar transfer requirement. Students may be required to provide their own instruments.

MUP 350
Concert Choir I 2 Units
Prerequisite: None
Advisory: MUP 357, or equivalent skills demonstrated through the assessment process.
General Education: CSU Area C1
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course covers the study and performance of standard vocal literature from the 16th century to the modern period. Students are urged to enter during their freshman year. Public performances are required. This course may be taken a maximum of four times to meet the major requirement for transfer to CSU, Sacramento, or to other universities with a similar transfer requirement.

MUP 353
Contemporary Gospel Choir 2 Units
Prerequisite: None
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course is designed for the college student who is interested in learning the history of gospel music, improving their general musicianship, enhancing their vocal technique, and performing chorale repertoire from different eras of gospel music. No previous musical experience is necessary. Multiple public performances of the repertoire rehearsed and learned, and a brief biographic paper on a gospel figure are required. This course may be repeated to meet the major requirement for transfer to CSU, Dominguez Hills, or to other universities with a similar transfer requirement.
MUP 357
College Chorus 2 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1
Enrollment Limitation: Voice placement or audition required.
Course Transferable to UC/CSU
Hours: 18 hours LEC; 54 hours LAB
This course is designed for the college student who is interested in a musical experience. Singers study and perform standard choral literature. Ability to match pitch, maintain rhythmic integrity and produce a good tone will be assessed by voice placement or audition in the initial rehearsals. This course may be repeated to meet the major requirement for transfer to CSU, Sacramento, or to other universities with a similar transfer requirement.

MUP 358
College Chorus Chorale 1 Unit
Prerequisite: None
Enrollment Limitation: Voice placement or audition required.
Course Transferable to CSU
Hours: 9 hours LEC; 27 hours LAB
This course is designed for the college student who is interested in a musical experience. Singers study and perform standard choral literature. Ability to match pitch, maintain rhythmic integrity and produce a good tone will be assessed by voice placement or by audition during the initial rehearsals. This course may be repeated to meet the major requirement for transfer to CSU, Sacramento, or to other universities with a similar transfer requirement.

MUP 360
Chamber Singers 2 Units
Prerequisite: None
Advisory: MUP 350 or 357; Students are strongly advised to document previous choral experience.
General Education: AA/AS Area I; CSU Area C1
Enrollment Limitation: Audition required.
Course Transferable to UC/CSU
Hours: 18 hours LEC; 72 hours LAB
Singers study and perform standard choral literature, especially written for chamber ensemble. Prospective members should have considerable previous choral experience. Public performances are required. Singers will perform outside of class, including evening concerts, participation in collegiate choral festivals, and on short tours. Ability to match pitch, maintain rhythmic integrity and produce a good tone will be assessed by voice placement or by audition during the initial rehearsals. This course may be repeated to meet the major requirement for transfer to CSU, Sacramento, or to other universities with a similar transfer requirement.

MUP 362
Chamber Singers Chorale 1 Unit
Prerequisite: None
Advisory: MUP 350, 357, or 358; Students are strongly advised to document previous choral experience.
Enrollment Limitation: Audition required.
Course Transferable to CSU
Hours: 9 hours LEC; 27 hours LAB
Singers study and perform standard choral literature, especially written for chamber ensemble. Prospective members should have considerable previous choral experience. Public performances are required. Singers will perform outside of class, including evening concerts, participation in collegiate choral festivals, choral exchanges, and on short tours. Ability to match pitch, maintain rhythmic integrity and produce a good tone will be assessed by audition during the initial rehearsals. This course may be repeated to meet the major requirement for transfer to CSU, Sacramento, or to other universities with a similar transfer requirement.
SPECIALIZATIONS IN MUSIC (MUSM)

MUSM 334
Introduction to Musical Instrument Digital Interface (MIDI) 2 Units
Prerequisite: None
Advisory: MUFHL 310 or MUIVI 310
General Education: AA/AS Area I
Course Transferable to CSU
Hours: 9 hours LEC; 81 hours LAB
This course is an introduction to the rapidly evolving use of professional music software and MIDI electronic instruments. Various music hardware options, including keyboards, synthesizers, samplers, computers and drum machines, will be explored. Through a series of MIDI projects, students learn to use music sequencing, notation, and CAI (computer-assisted instruction) software.

MUSM 370
Music for Children 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1
Course Transferable to CSU
Hours: 54 hours LEC
Experiences and materials for integrating music into pre-school, 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)

MUSM 495
Independent Studies in Music Specializations in Music 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

MUSM 499
Experimental Offering in Music Specializations in Music .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.S.–Nutrition and Foods

CERTIFICATE OF PROFICIENCY
Nutrition and Foods, Community Nutrition

Program Description
CRC's Department of Nutrition and Foods offers an Associate's Degree Program that is challenging, accessible, and rewarding. The program provides opportunities to master the knowledge and skills required for transfer to a didactic program in dietetics or a four-year degree in nutrition and foods.

Career Opportunities
Hospitals/nursing homes, school food services, other health related facilities, college food service, industry, restaurant, public health agencies, nutrition program, WIC programs, Meals on Wheels, health clubs, weight management clinic, community wellness centers, food companies, contract food management companies, food distribution companies.

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

Highlights
• Online courses

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate's degree in this major may be different from the requirements needed for the bachelor's degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.S. - Nutrition and Foods
CODE #1524

Enrollment Eligibility:
To be eligible for enrollment in the program, the student must meet the following criteria:
• Have access to the Internet
• Have an e-mail account
• Be familiar with word processing, PowerPoint, retrieving and attaching electronic documents and using the world wide web
• Have self-discipline, motivation, and the ability to complete required assignments on schedule.

Enrollment Process:
Eligible students are selected for the program according to the following steps:
• Admission to the college
• Contact CRC Nutrition and Foods Program Counselor regarding transferrable courses.

REQUIRED PROGRAM....................................................... Units
First Year (Fall):
CHEM 305 Introduction to Chemistry (5) ........................................ 51
or CHEM 400 General Chemistry (5)
NUTRI 300 Nutrition.......................................................... 3
CAM 301 Food Theory and Preparation ...................................... 4
BIOL 102 Essentials of Human Anatomy and Physiology .......... 42

First Year (Spring):
NUTRI 310 Cultural Foods of the World ..................................... 3
BIOL 310 General Biology...................................................... 4

Second Year (Fall):
PSYC 300 General Principles.................................................. 3
NUTRI 350 Community Nutrition ............................................ 3
NUTRI 340 Nutrition and Metabolism....................................... 3
NUTRI 322 Nutrition Issues Throughout Life............................ 3

Second Year (Spring):
NUTRI 360 Nutrition and Disease.......................................... 3
NUTRI 370 Food Service Management.................................... 3

TOTAL UNITS REQUIRED .................................................. 41

1 CHEM 305, 400 are transferrable to CSUS Didactic Program
2 or BIOL 430 - transferrable to CSUS Didactic Program

Suggested Electives:
STAT 300, Introduction to Probability and Statistics
BIOL 440, General Microbiology

Associate Degree
The Nutrition and Foods Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
## NUTRITION AND FOODS (NUTRI)

### NUTRI 299
Experimental Offering in Nutrition and Foods  
Prerequisite: None  
Hours: 18 hours LEC; 54 hours LAB

### NUTRI 300
Nutrition  
Prerequisite: None  
General Education: AA/AS Area III(b); CSU Area E1  
Course Transferable to UC/CSU  
Hours: 54 hours LEC

This course studies the basic science of human nutrition and its application to health and chronic diseases. It examines the sources and functions of micro- and macronutrients, including digestion, absorption, and transportation. Emphasis is placed on the health implications associated with dietary patterns, phytonutrient intake, consumption of whole foods, the impact of processing, and consequences of under and overconsumption. The course will also include topics such as nutrition as a world and consumer problem, weight loss, sports nutrition, food safety, and the diet-disease relationship, among others. An evaluation of personal dietary habits using current dietary guidelines and nutritional assessment methods will be completed to help students assess their own nutritional health.

### NUTRI 310
Cultural Foods of the World  
Prerequisite: None  
Advisory: LIBR 318  
General Education: AA/AS Area VI  
Course Transferable to UC/CSU  
Hours: 54 hours LEC

This course compares various western and non-western culture food customs and patterns including their social, religious, economic and aesthetic significance. The nutritional status of various cultures as it relates to geographic agricultural and socioeconomic factors will be explored. Ethnocentrism, gender-related stereotypes, and racism as they relate to the availability, distribution, and preparation of food throughout the world will also be compared.

### NUTRI 322
Nutrition Issues Throughout Life  
Prerequisite: NUTRI 300 with a grade of “C” or better  
Advisory: LIBR 318  
General Education: AA/AS Area III(b)  
Course Transferable to CSU  
Hours: 54 hours LEC

This course is a study of the nutritive needs of persons at various stages of the lifecycle with emphasis on special periods such as pregnancy, preschool, adolescence and aging. This course is particularly helpful to Physical Education and Early Childhood Education majors as well as those dealing with people in social agencies, such as nursing and gerontology.
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<th>Course Code</th>
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<th>Prerequisites</th>
<th>Advisory</th>
<th>Course Transferable to CSU</th>
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<td>NUTRI 340</td>
<td>Nutrition and Metabolism</td>
<td>3</td>
<td>NUTRI 300 with a grade of “C” or better</td>
<td>BIOL 102, BIOL 310, and LIBR 318</td>
<td>Course Transferable to CSU</td>
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<td>Community Nutrition</td>
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<td>NUTRI 360</td>
<td>Nutrition and Disease</td>
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<td>NUTRI 340 with a grade of “C” or better</td>
<td>BIOL 102 and 310</td>
<td>Course Transferable to CSU</td>
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<td>NUTRI 370</td>
<td>Food Service Management</td>
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<td>Course Transferable to CSU</td>
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**NUTRI 495**
Independent Studies in Nutrition and Foods
1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

**NUTRI 499**
Experimental Offering in Nutrition and Foods
.5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.S. – Pharmacy Technology

Program Description
The CRC Pharmacy Technology Program includes didactic, laboratory, and practicum components that are structured to facilitate the achievement of educational and career goals. Pharmacy technicians are skilled technical health workers who perform a wide variety of pharmacy related tasks under the direct supervision of a registered pharmacist. Successful completion of the program not only qualifies students for registration with the California State Board of Pharmacy but also prepares graduates for entry-level pharmacy technician positions. The program is accredited by the American Society of Health-System Pharmacists.

Career Opportunities
Businesses that will make up the potential market for CRC's Pharmacy Technician graduates include hospitals; pharmacies/drug stores; grocery stores; department stores; state government; local government; and other general merchandise stores in the region. Retail pharmacies are expected to experience the largest growth in pharmacy technician jobs over the next ten years and will most likely benefit the most from a Pharmacy Technician degree program in the region.

NOTE TO TRANSFER STUDENTS
If you are interested in applying to a Pharmacy School to pursue a Pharmacy Doctorate program, it is critical that you meet with a CRC counselor to select and plan the courses required by the Pharmacy Schools. Schools vary in terms of the required preparation. The courses that CRC requires for an associate's degree in this major are different from the requirements needed for the Pharmacy Schools. Students need to acknowledge that the selection for admission to an accredited Pharmacy School is highly competitive.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo.

DEGREE
A.S. – Pharmacy Technology
CODE #1634

Enrollment Eligibility:
To be eligible for enrollment in the program, the student must meet the following criteria:
- Pass or demonstrate competency in BUSTEC 302 (or WAM equivalent), CISC 302, MATH 100 or 102
- Complete the prerequisite courses with a grade of a “C” or higher. The prerequisite courses are: PHARM 300, BIOL 100 or BIOL 102, AH 110, PHARM 315 and PHARM 320.
- The American Society of Health System Pharmacists requires that all students in the program must have a high school diploma or G.E.D.

Enrollment Process:
Eligible students are selected for the program according to the following steps:
- Complete the prerequisite courses.
- Fulfill all requirements set forth by the CRC Allied Health Practicum Guidelines including but not limited to background clearance, physical examination, immunization clearance, and drug screening.
- Apply to the Pharmacy Technology Program in the Spring prior to Fall admission. Students will be notified of admission. Applications will be made available in the Careers and Technology area office and online: http://www.crc.losrios.edu/Areas_of_Study/Careers_and_Technology/Medical_Assisting/Program_Application.htm

REQUIRED PROGRAM
First Semester (Fall)
PHARM 350 Pharmaceutical Information Management .................................. 3
PHARM 360 Retail Operation of Pharmaceutical Practice .................................. 3
PHARM 380 Preparation of Pharmaceutical Products ......................................... 3

Second semester (Spring):
PHARM 400 Pharmacy Technician Profession ................................................. 1
PHARM 410 Acute Care Practicum ................................................................. 4
PHARM 420 Retail Practicum .............................................................................. 2
COMM 301 Introduction to Public Speaking ...................................................... 3

TOTAL UNITS REQUIRED: ........................................................................ 19

1 Course can be taken prior to admission into the Pharmacy Technology Program.

Suggested Electives:
HSER 302 Introduction to Psychology of Human Relations
ECON 304 Principles of Microeconomics
COMM 325 Intercultural Communication

Associate Degree
The Pharmacy Technology Associate in Science (A.S.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
Pharmacy Technology (PHARM)

PHARM 300
Introduction to Pharmacy Practice 3 Units
Course Transferable to CSU
Hours: 54 hours LEC
This course introduces the concepts of direct pharmaceutical patient care and the technician's role in its delivery. Current direct patient care delivery system and medication distribution systems are emphasized. Topics include dosage calculations, the influence that medication laws, standards and regulations have on practice, and quality assurance in the pharmaceutical setting.

PHARM 315
Pharmaceutical Calculations 3 Units
Prerequisite: MATH 100 and PHARM 300 with grades of "C" or better
Corequisite: PHARM 320
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
This course presents the mathematical concepts and practical experience required for students to pass the math portion of the Pharmacy Technician Certification Examination. Through lecture demonstrations and practice problem sets, students will learn the skills essential for calculating and preparing pharmaceutical dosages in both community and institutional pharmacy settings.

PHARM 320
Pharmacology of Therapeutic Agents 5 Units
Prerequisite: BIOL 100 and PHARM 300 with grades of "C" or better; or equivalent skills demonstrated through the assessment process.
Corequisite: PHARM 315
Advisory: LIBR 318
Course Transferable to CSU
Hours: 81 hours LEC; 27 hours LAB
This course studies the anatomy and physiology of the various human body systems. Students will learn the use and side effects of prescription medications, nonprescription medications, and alternative therapies commonly used to treat diseases affecting the nervous, musculoskeletal, immune, dermatological, hematologic cardiovascular, respiratory, reproductive, gastrointestinal, renal system as well as the eye, ear, nose and throat. This course covers brand and generic names of the therapeutic agents studied, standard pronunciation, dosage forms, routes of administration, medical abbreviation and the role of the Food and Drug Administration in herbal and dietary supplements. The laboratory activities are designed to provide hands-on experiences in pharmacy calculation and compounding medications related to the various body systems.

PHARM 350
Pharmaceutical Information Management 3 Units
Prerequisite: PHARM 300 with a grade of "C" or better
Advisory: LIBR 318
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
This course reviews how state laws and regulations determine the activities associated with the collection of patient-specific information by the pharmacy technician. Students learn to secure information from the medical chart, record, patient profile, patient, caregiver, database and health care professional. Technologies used for storing, accessing and recording pharmacy data and proper methods for receiving and authenticating prescription orders are emphasized. Students will also learn safety in medication use and monitoring program of medication therapy and the pharmacy technician's role in the prevention and reporting of medication misadventures. The lab provides hands-on experience with pharmacy distribution software, technology, and prescription processing.

PHARM 360
Retail Operation of Pharmaceutical Practice 3 Units
Prerequisite: PHARM 300 with a grade of "C" or better
Course Transferable to CSU
Hours: 45 hours LEC; 27 hours LAB
This course reviews the process of pharmaceutical purchasing and acquisitions in the retail settings and in emergency situations. Students will learn inventory control including handling of receipts, storage, removal, and documentation. Other topics include: methods of distribution with emphasis on computer database maintenance and the state laws that govern these activities, billing, collection of payment, third-party payment, and the technician's role in the assisting the PharmD in immunization administration. The lab will provide hands-on experience in a simulated retail environment.

PHARM 380
Preparation of Pharmaceutical Products 3 Units
Prerequisite: PHARM 300 with a grade of "C" or better
Course Transferable to CSU
Hours: 27 hours LEC; 81 hours LAB
This course presents the methods of preparing non-compounded, compounded, non-sterile, and sterile products for distribution. Students will learn the state laws and regulations that determine the role of a pharmacy technician in measuring, preparing, packaging, and storing of medications. Medication preparation, profiling, calculation, measuring, safety, labeling and quality assurance procedures will be emphasized.

PHARM 400
Pharmacy Technician Profession 1 Unit
Prerequisite: PHARM 315 and 320 with grades of "C" or better
Course Transferable to CSU
Hours: 18 hours LEC
This course prepares the student for employment as a pharmacy technician. Students learn the scope of practice of a pharmacy technician. Students will also learn professional ethics, attitudes, values, and beliefs of successful pharmacy technicians. Emphasis is placed on projecting an image appropriate to the profession and effective interpersonal relationships with other health care professionals and the appreciation for certification and active involvement in local, state, and national technician organizations.
PHARM 410  
Acute Care Practicum  4 Units  
Prerequisite: PHARM 350, 380, and 400 with grades of “C” or better  
Course Transferable to CSU  
Hours: 240 hours LAB  
This course develops practical skills in the didactic and practicum phases of pharmacy technician training in the acute and home care environment. Acute care includes hospital and/or long-term care facilities. Home care includes exposure to infusion therapy. The clinical experience is performed under professional supervision. A preceptor (Licensed Pharmacist or Certified Pharmacy Technician) evaluates the student's performance at the site. Students will directly interact with clients and other health care professionals. Students must have a TB clearance and any other immunization required by the clinical facility. Students must have an established Agency Agreement on file with the faculty with a sponsoring site prior to the beginning of the first day of class. Contact the Careers and Technology Main Office for information about the Agency Agreement.

PHARM 420  
Retail Practicum  2 Units  
Prerequisite: PHARM 350, 360, and 400 with grades of “C” or better  
Course Transferable to CSU  
Hours: 120 hours LAB  
This course develops the practical skills for pharmacy technicians in a community/retail environment. The clinical experience is performed under professional supervision. A preceptor (Licensed Pharmacist or Certified Pharmacy Technician) evaluates the student's performance at the site. Students will directly interact with clients and other health care professionals. Students must have a TB clearance and any other immunization required by the clinical facility. Students must have an established Agency Agreement with a sponsoring site on file with the faculty prior to the beginning of the first day of class. Contact the Careers and Technology Main Office for information about the Agency Agreement.
Program Description
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 Opportunities
- Education
- Ethics
- Management
- Law
- Government
- Publishing
- Religious Service
- Scientific Research
- Social Work
- Teaching

Some Career Opportunities 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

NOTE:
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

PHILOSOPHY (PHIL)

PHIL 300
Introduction to Philosophy 3 Units
Prerequisite: None
General Education: AA/AS Area II(b); CSU Area A3; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
In this course, students will apply the critical thinking techniques of analysis, evaluation, and synthesis to areas of philosophical inquiry including meta-philosophy, epistemology, metaphysics, ethics, political philosophy, philosophy of religion, history of philosophy, and existentialism. Students will practice distinguishing fact from opinion, employing inductive and deductive reasoning, identifying logical errors and fallacies, and developing oral and written arguments to support their own philosophical perspectives or challenge the perspectives of others. The quality and quantity of the course’s required writing will reflect the standards of a second semester composition course. (C-ID PHIL 100)

PHIL 304
Introduction to Eastern Philosophy 3 Units
Prerequisite: None
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides an introduction to the philosophical traditions of Hinduism, Buddhism, Taoism and Confucianism focusing on metaphysics, epistemology, and ethics.

PHIL 310
Introduction to Ethics 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
The application of theories developed by traditional and contemporary moral philosophy to the ethical problems, dilemmas, and issues of today. (C-ID PHIL 120)
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.

This course introduces sentential and predicate logic by introducing logical symbolism, truth tables, methods of formal analysis and methods of formal proof including natural deduction. It is recommended for students in the sciences, computer programming, mathematics, linguistics, law, and philosophy.

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.

This course is a historical and topical survey of the questions, problems, and theories philosophers have developed in attempts to understand religion as a fundamental impulse within human experience and as a major cultural force. Rather than survey the different religions, this course considers the basic philosophical beliefs and concepts that seem auxiliary to religion. Topics include the possibility of religious knowledge, faith versus reason, theistic arguments, conceptions of God, religious language, atheism, agnosticism, mysticism, the problem of evil, immortality, the challenge of science, and religion's influence on ethics and politics.

This course will introduce students to the major world religious traditions, including indigenous sacred ways, Hinduism, Buddhism, 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, the influence of these religions on contemporary issues in the United States including ethnicity, ethnocentrism, racism, ageism, class differences, and sexual orientation is considered. This course fulfills Cosumnes River College’s Ethnic/Multicultural requirement for the Associates Degree.

In this course, students survey 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 textual exegesis and analysis. Topics from the Hebrew scriptures include the Law, the development of monotheism, the social justice tradition of the Prophets, and the Writings. Topics from the New Testament scriptures include the investigation of the Gospels and the “Jesus Problem” and the examination of the early development of the Christian Church.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Course Transferable to</th>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 360</td>
<td>Social/Political Philosophy</td>
<td>3</td>
<td>None</td>
<td>UC/CSU</td>
<td>LEC</td>
<td>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.</td>
</tr>
<tr>
<td>PHIL 495</td>
<td>Independent Studies in Philosophy</td>
<td>1-3</td>
<td>None</td>
<td>CSU</td>
<td>LEC</td>
<td>An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses.</td>
</tr>
<tr>
<td>PHIL 499</td>
<td>Experimental Offering in Philosophy</td>
<td>.5-4</td>
<td>None</td>
<td>CSU</td>
<td>LEC</td>
<td>See UC Limitations &amp; Counselor</td>
</tr>
</tbody>
</table>
DEGREE
A.A. — Photography
A.A. – Art-Photography (see page 88)

CERTIFICATES OF ACHIEVEMENT
Portraiture and Wedding Photography
Commercial and Studio Photography

CERTIFICATES OF PROFICIENCY
Photography
Fine Art Photography

See also:
Desktop Publishing
(Computer Information Science Program)

Program Description
The photography program is designed to teach entry-level skills for careers in the photographic industry. Students interested in photography as visual expression or an adjunct to a vocation will also benefit.

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 Opportunities
Studio Photography
Portrait & Wedding Photography
Photographic Lab Technician
Photojournalism
Industrial and Architectural Photography

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

Highlights
- Located in the Winn Center
- 20 Black & White Enlargers
- Digital Media Lab
- State of the Art Studio bays
- Field Trips to a variety of photographic businesses in Sacramento and the Bay Area.
- Field study courses in Yosemite, the Eastern Sierras, and Monterey.
- Special Seminars.

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

Field Study Classes at Cosumnes River College

Nature is often the best classroom! Come learn outside in Cosumnes River College’s field study courses. These classes consist of short classroom sessions followed by extended trips to some of the most unique and beautiful environments in California, including Big Sur, Monterey Bay, Mt. Lassen, Point Reyes, Yosemite and more! These short-term classes are offered by several departments, including Biology, Geography, Geology and Photography. For more information about specific classes, consult the class schedule or contact each department.
DEGREE
A.A. — Photography

CODE #1059

REQUIRED PROGRAM .................................................. Units
PHOTO 301 Beginning Photography ................................ 3
or ARTPH 301 Beginning Photography
or PHOTO 302 Beginning Digital Photography
PHOTO 310 Intermediate Photography .................. 3
or ARTPH 310 Intermediate Photography
or PHOTO 312 Intermediate Digital Photography
COMM 301 Introduction to Public Speaking ............... 3
or COMM 361 The Communication Experience
PHOTO 320 Color Photography .................................. 3
or ARTPH 322 Color Photography
PHOTO 340 Careers in Photography ......................... 3
PHOTO 400 Digital Imaging ................................... 3
PHOTO 420 History of Photography ......................... 3
or ARTPH 342 History of Photography
JOUR 310 Mass Media and Society ....................... 3
MGMT 362 Techniques of Management .............. 3
A minimum of 3 units from the following: ............... 3
PHOTO 272 Lightroom (1.5)
PHOTO 273 Video Capture with DSLRs (1.5)
PHOTO 275 Digital Applications for Alternative Processes (1.5)
PHOTO 276 Digital Bookmaking (1.5)
PHOTO 277 Creating a Digital Portfolio (1.5)
TOTAL UNITS REQUIRED ........................................ 30

Suggested Electives:
ACCT 101, 301; ART 300, 302; ARTH 300; CHEM 305;
MKT 310; PHOTO 260, 350, 360, 364, 370, 372, 390, 392, 410

Associate Degree
The Photography Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF PROFICIENCY
Photography

CODE #1059

The photography certificate program is designed for students who want to enter a career path in photography or transfer to a four year photography program. Students will use a variety of formats in produce images in black and white and color.

REQUIRED PROGRAM .................................................. Units
PHOTO 301 Beginning Photography .......................... 3
or ARTPH 301 Beginning Photography
or PHOTO 302 Beginning Digital Photography
PHOTO 310 Intermediate Photography .................. 3
or ARTPH 310 Intermediate Photography
or PHOTO 312 Intermediate Digital Photography
PHOTO 320 Color Photography ................................ 3
or ARTPH 322 Color Photography
PHOTO 340 Careers in Photography ......................... 3
or PHOTO 400 Digital Imaging
PHOTO 420 History of Photography ......................... 3
or ARTPH 342 History of Photography
TOTAL UNITS REQUIRED ........................................ 15

CERTIFICATE ACHIEVEMENT
Portraiture and Wedding Photography

CODE #1214

The portraiture and wedding program is designed for students who want to enter a career path in wedding photography. Students will learn techniques to pose and work with models and clients, use strobe equipment and available lighting techniques, work with professionals in the field and design their own portfolio. Business strategies, self promotion, and workflow methods will also be covered.

REQUIRED PROGRAM .................................................. Units
PHOTO 301 Beginning Photography .......................... 3
or ARTPH 301 Beginning Photography
or PHOTO 302 Beginning Digital Photography
PHOTO 310 Intermediate Photography .................. 3
or ARTPH 310 Intermediate Photography
or PHOTO 312 Intermediate Digital Photography
PHOTO 320 Color Photography ................................ 3
or ARTPH 322 Color Photography
PHOTO 340 Careers in Photography ......................... 3
or PHOTO 400 Digital Imaging
PHOTO 350 Photojournalism .................................. 3
or PHOTO 410 Advanced Digital Imaging
PHOTO 370 Portraiture and Wedding Photography .... 3
PHOTO 372 Advanced Portrait Photography .......... 3
PHOTO 420 History of Photography ......................... 3
or ARTPH 342 History of Photography
A minimum of 3 units from the following: ............... 3
PHOTO 272 Lightroom (1.5)
PHOTO 273 Video Capture with DSLRs (1.5)
PHOTO 275 Digital Applications for Alternative Processes (1.5)
PHOTO 276 Digital Bookmaking (1.5)
PHOTO 277 Creating a Digital Portfolio (1.5)
TOTAL UNITS REQUIRED ........................................ 27

CERTIFICATE ACHIEVEMENT
Commercial and Studio Photography

CODE #1060

The commercial and studio program is designed for students who want to enter a career path in studio photography. Students will use strobe equipment to learn lighting techniques, work with professionals in the field and design their own portfolio. Business strategies, self promotion, and workflow methods will also be covered.

REQUIRED PROGRAM .................................................. Units
PHOTO 302 Beginning Digital Photography .............. 3
or PHOTO 301 Beginning Photography
or ARTPH 301 Beginning Photography
PHOTO 312 Intermediate Digital Photography ........ 3
or PHOTO 310 Intermediate Photography
or ARTPH 310 Intermediate Photography
PHOTO 320 Color Photography ................................ 3
or ARTPH 322 Color Photography
PHOTO 340 Careers in Photography ......................... 3
or PHOTO 400 Digital Imaging
PHOTO 360 Large Format Photography ................... 3
or ARTPH 314 Large Format Photography
PHOTO 390 Studio Lighting Techniques .................. 3-4
PHOTO 392 Commercial and Advertising Photography .... 3-4
PHOTO 410 Advanced Digital Imaging .................. 3
PHOTO 420 History of Photography ......................... 3
or ARTPH 342 History of Photography
A minimum of 3 units from the following: ............... 3
PHOTO 272 Lightroom (1.5)
PHOTO 273 Video Capture with DSLRs (1.5)
PHOTO 275 Digital Applications for Alternative Processes (1.5)
PHOTO 276 Digital Bookmaking (1.5)
PHOTO 277 Creating a Digital Portfolio (1.5)
TOTAL UNITS REQUIRED ........................................ 30-32
CERTIFICATE OF PROFICIENCY
Fine Art Photography
CODE #1608

The fine art photography program is designed for students who want to enter a career path in fine art photography. Students will use a variety of cameras and formats to produce images in both color and black and white. Personal expression and creativity, history and contemporary issues in photography and visual communication will also be emphasized.

REQUIRED PROGRAM ................................................................. Units
PHOTO 260 The Eastern Sierra Landscape, Yosemite Valley .... 2
or PHOTO 301 Beginning Photography ................................. 3
or PHOTO 302 Beginning Digital Photography
ARTPH 310 Intermediate Photography ................................. 3
or PHOTO 310 Intermediate Photography
or PHOTO 312 Intermediate Digital Photography
ARTPH 314 Large Format Photography ................................. 3
or PHOTO 360 Large Format Photography
or ARTPH 340 Alternative Process Photography
or PHOTO 364 Advanced Black and White Photography
or PHOTO 350 Photojournalism
ARTPH 322 Color Photography ............................................. 3
or PHOTO 320 Color Photography
or PHOTO 400 Digital Imaging
ARTPH 342 History of Photography ..................................... 3
or PHOTO 420 History of Photography
TOTAL UNITS REQUIRED .......................................................... 17

PHOTOGRAPHY (PHOTO)

PHOTO 260
The Eastern Sierra Landscape, Yosemite Valley 2 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

This course is designed to give students an opportunity to photograph in the Eastern Sierra emphasizing the Yosemite Valley. The course will include a variety of topics including using film and digital cameras in the landscape, understanding different natural qualities of light and low light photography.

PHOTO 262
The Eastern Sierra Landscape, Mono Lake Basin 2 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

This course is designed to give students an opportunity to photograph in the Eastern Sierra emphasizing the Mono Lake Basin. The course will include a variety of topics including using film and digital cameras in the landscape, understanding different natural qualities of light and low light photography.

PHOTO 264
The Pacific Coast Landscape 2 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

This course is designed to give students an opportunity to photograph in the landscape emphasizing the Pacific Coast. The course will include a variety of topics including using film and digital cameras in the landscape, understanding different natural qualities of light and low light photography.

PHOTO 272
Lightroom 1.5 Units
Prerequisite: PHOTO 302 with a grade of “C” or better
Course Transferable to CSU

Hours: 18 hours LEC; 27 hours LAB

This course is designed to provide students the opportunity to learn the most current photographic archiving software products. Topics of instruction include: importing images, editing imaging and placing images into collections and libraries. Students will work with digital cameras. The class includes: lectures, lab time, field trips, exams, a journal, and a final project.

PHOTO 273
Video Capture with DSLRs 1.5 Units
Prerequisite: PHOTO 302 with a grade of “C” or better

Hours: 18 hours LEC; 27 hours LAB

This course is designed to provide students instruction in shooting video with DSLR cameras. Topics include: custom settings for shooting video, options for sound capture, lighting techniques, video editing and digital story telling. Students will work with digital cameras and accessory equipment. The class includes: lectures, lab time, field trips, exams, a journal, and a final project.
## Digital Applications for Alternative Processes

**PHOTO 275**  
**1.5 Units**  
**Prerequisite:** PHOTO 302 with a grade of "C" or better  
**Hours:** 18 hours LEC; 27 hours LAB  
This course is designed to provide students instruction in digital applications for alternative processes. Topics include: creating custom curves for alternative process printing, using a variety of software products for creating unique imagery, and applying digital technology to older print processes. Students will work with digital cameras and accessory equipment. The class includes: lectures, lab time, field trips, exams, a journal, and a final project.

## Digital Bookmaking

**PHOTO 276**  
**1.5 Units**  
**Prerequisite:** PHOTO 302 with a grade of "C" or better  
**Hours:** 18 hours LEC; 27 hours LAB  
This course is designed to provide students instruction in digital and traditional bookmaking. Editing, design, layout, cover design, printing and binding will be covered. Students will work with digital cameras and design software. The class includes: lectures, lab time, field trips, exams, a journal, and a final project.

## Creating a Digital Portfolio

**PHOTO 277**  
**1.5 Units**  
**Prerequisite:** PHOTO 302 with a grade of "C" or better  
**Hours:** 18 hours LEC; 27 hours LAB  
This course is designed to provide students instruction in creating a website to promote their photography. Website hosting options, uploading and organizing images will be covered. Students will work with digital cameras and design software. The class includes: lectures, lab time, field trips, exams, a journal, and a final project.

## Portfolio Development I

**PHOTO 280**  
**2-4 Units**  
**Prerequisite:** PHOTO 301 or 302 with a grade of "C" or better  
**Hours:** 36 hours LEC; 108 hours LAB  
This course is designed for advanced students to develop their portfolios both for creative and professional purpose. Individual style, presentation methods, and forums for distribution and exhibition will be covered. Topics of discussion will include: developing a personal visual style, self publishing, on-line promotion, and conferences and workshops. The format of the class includes lectures, lab time, field trips, exams, a journal, and critique sessions.

## Independent Studies in Photography

**PHOTO 295**  
**1-3 Units**  
**Prerequisite:** None  
**Hours:** 54 hours LEC; 54 hours LAB  
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

## Experimental Offering in Photography

**PHOTO 299**  
**.5-4 Units**  
**Prerequisite:** None  
**Hours:** 18 hours LEC; 54 hours LAB

## Beginning Photography

**PHOTO 301**  
**3 Units**  
**Same As:** ARTPH 301  
**Prerequisite:** None  
**General Education:** AA/AS Area I; CSU Area C1  
**Course Transferable to UC/CSU**  
**Hours:** 36 hours LEC; 54 hours LAB  
This course combines lectures with hands-on experience in traditional black and white photography. Students will work primarily with film cameras. 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 covered. The format of the class includes lectures, visual presentations, lab time, a field trip, exams and a portfolio. Students may wish to challenge the prerequisite on the basis of equivalent experience. This course is the same as ARTPH 301, and only one may be taken for credit.

## Beginning Digital Photography

**PHOTO 302**  
**3 Units**  
**Prerequisite:** None  
**General Education:** AA/AS Area I  
**Course Transferable to UC/CSU**  
**Hours:** 36 hours LEC; 54 hours LAB  
This course combines lectures with hands-on experience in digital photography. Instruction includes digital camera function, exposure control, technical and creative control, computer manipulation of images and digital output options. The format of the class includes lectures, visual presentations, lab time, exams and a portfolio.

## Intermediate Photography

**PHOTO 310**  
**3 Units**  
**Same As:** ARTPH 310  
**Prerequisite:** ARTPH 301 or PHOTO 301 with a grade of "C" or better  
**Course Transferable to CSU**  
**Hours:** 36 hours LEC; 54 hours LAB  
This course is designed to expand on the technical and creative concepts acquired in beginning film photography. Topics of instruction include: exposure and development control, archival printing, introduction to medium and large format photography, studio lighting techniques, and alternative processes. Students will work primarily with film cameras. The class includes lectures, visual presentations, lab time, written tests, and a portfolio. This course is the same as ARTPH 310, and under either name, the course may only be taken one time for credit.

## Intermediate Digital Photography

**PHOTO 312**  
**3 Units**  
**Prerequisite:** PHOTO 302 with a grade of "C" or better  
**Course Transferable to UC/CSU**  
**Hours:** 36 hours LEC; 54 hours LAB  
This course is designed to expand on the technical and creative concepts acquired in beginning digital photography. Topics of instruction include: advanced digital camera functions, exposure control, introduction to studio lighting, computer manipulation of images, digital archiving, digital output options and digital print finishing. The class includes lectures, visual presentations, lab time, written tests, a field trip, and a portfolio.
PHOTO 320
Color Photography 3 Units
Same As: ARTPH 322
Prerequisite: PHOTO 302 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers the fundamental principles of color photography. Topics of instruction include: color theory, correct exposure, techniques to determine correct color balance, flash exposure for color and printing digital files. Students will work with digital cameras. The class includes: lectures, visual presentations, lab time, written tests, and a portfolio. This course is the same as ARTPH 322, and under either name, the course may only be taken one time for credit.

PHOTO 340
Careers in Photography 3 Units
Prerequisite: ARTPH 322 or PHOTO 320 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is 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 by working with professionals in the field. Students may work with digital or traditional cameras. The class includes: lectures, studio visits, lab time, and completion of a resume, price list, and portfolio.

PHOTO 350
Photojournalism 3 Units
Prerequisite: PHOTO 310 or 312 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course provides instruction in photojournalism and magazine techniques in photography. Students will study features, sports, spot news, and the photo essay styles of journalistic photography. Students may work with digital or traditional cameras. Students will also capture and use audio to complete multimedia projects. A beginning, advanced, or magazine style digital portfolio will be completed. The course includes lectures, visual presentations, lab time, and field trips. Students will provide their own camera and related materials. (C-ID JOUR 160) (C-ID JOUR 160)

PHOTO 360
Large Format Photography 3 Units
Same As: ARTPH 314
Prerequisite: ARTPH 310 or PHOTO 310 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is designed to give students a thorough knowledge of view camera operation in the studio and in the field. Topics of instruction include: view camera movements, exposure techniques, 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, visual presentations, lab time, studio time, and a portfolio. Students are urged to provide their own large format camera. This course is the same as ARTPH 314.

PHOTO 364
Advanced Black and White Photography 3 Units
Prerequisite: PHOTO 310 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is designed to expand on the technical and creative concepts acquired in intermediate photography. Topics of instruction include: zone system, archival printing techniques, advanced methods of image manipulation, and digital fine art printing. Students will work with digital and traditional cameras. The class includes lectures, visual presentations, lab time, exams, and a portfolio.

PHOTO 365
Alternative Process Photography 3 Units
Same As: ARTPH 340
Prerequisite: ARTPH 310 or PHOTO 310 with a grade of “C” or better
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course introduces historical and alternative processes in photography. Topics of instruction include: pin hole photography, handmade cameras, historical photographic processes, enlarging negatives, creating digital negatives and contact printing. Students will also hang a class exhibition. The class includes lectures, visual presentations, lab time, exams, and a portfolio. This course is the same as ARTPH 340.

PHOTO 370
Portraiture and Wedding Photography 3 Units
Prerequisite: ARTPH 322 or PHOTO 320 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is designed to give students an in depth understanding of portraiture. Topics include: techniques of lighting and posing, working with groups and individuals, use of appropriate cameras and films, professional ethics and business strategies. Students may work with digital or traditional cameras. The class includes: lectures, lab time, on-location field trips, exams, a journal, and a portfolio geared toward a professional presentation.

PHOTO 372
Advanced Portrait Photography 3 Units
Prerequisite: ARTPH 322 or PHOTO 320 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is designed to give students an in depth understanding of portraiture. Topics include: techniques of lighting and posing, working with groups and individuals, use of appropriate cameras and films, professional ethics and business strategies. Students may work with digital or traditional cameras. The class includes: lectures, lab time, on-location field trips, exams, a journal, and a portfolio geared toward a professional presentation.

PHOTO 390
Studio Lighting Techniques 3-4 Units
Prerequisite: ARTPH 322 or PHOTO 320 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 108 hours LAB
This course is a study in studio lighting techniques used in commercial photography. Topics of instruction include: correct exposure using strobe, lighting ratios, basic portraiture and advertising, appropriate choice of camera formats, and studies in composition of commercial photographs. Students are encouraged to work in a variety of formats, using black and white and color. Students will primarily use digital cameras. The class includes: lectures, visual presentations and discussions, on-location field trips, lab time, exams, and a portfolio.
PHOTO 392
Commercial and Advertising Photography 3-4 Units
Prerequisite: ARTPH 322 or PHOTO 320 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 108 hours LAB
This course covers 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, using both film and digital cameras. The class includes: lectures, visual presentations and discussions, on-location field trips, lab time, written tests, a journal, and a portfolio geared toward a professional presentation.

PHOTO 400
Digital Imaging 3 Units
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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.

PHOTO 410
Advanced Digital Imaging 3 Units
Prerequisite: PHOTO 400 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
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 multimedia and visit various local businesses.

PHOTO 420
History of Photography 3 Units
Same As: ARTPH 342
Prerequisite: None
General Education: AA/AS Area i; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides an in-depth study of photography and photographically derived images. The course will focus on the development of the first photograph processes from the nineteenth century to current technologies. The format of the class includes lecture and discussions, visual presentations and a field trip. This course is the same as ARTPH 342, and only one may be taken for credit.

PHOTO 495
Independent Studies in Photography 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

PHOTO 498
Work Experience in Photography 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Photography.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

PHOTO 499
Experimental Offering in Photography .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
DEGREES
A.S.-T — Physics for Transfer
A.S.—Physics

See also:
A.S.—Science, General
(Science Program)

Program Description
The CRC PHYSICS and ASTRONOMY department offers a full array of transferable courses that fulfill both major and general education requirements. Physics sequences include a three-semester calculus-based sequence for computer science and engineering students, a two-semester calculus-based sequence for life science and architecture students, and a two-semester trigonometry-based sequence for life science and architecture students. These sequences are designed to meet transfer requirements for students in the physical and life sciences, engineering, mathematics, architecture, and computer information science. Laboratories are well-equipped and central to the courses.

Courses in Astronomy and Conceptual Physics are offered as part of the general education program at CRC and are transferable to the UC and CSU. Labs are offered for astronomy. All are excellent leading to the appreciation and application of scientific knowledge and methods for the non-science student.

The CRC PHYSICS program consists of two degrees. The first is the Physics for Transfer degree (A.S.-T), developed to fulfill the general requirements of the California State University (CSU) for transfer. Students with this degree will receive priority admission with junior status to the CSU system, although not necessarily to a particular campus or major.

The second degree is the Physics Associates in Science degree (A.S.), developed to fulfill most of the lower division requirements for transfer to universities with a major in Physics.

Science Website: www.crc.losrios.edu/phys-ps-astr

Career Opportunities
After transfer and advanced study:
Physicist
Meteorologist
Geologist
Astronomer
Architect
Pre-Med
Biophysicist
Astrophysicist

DEGREE
A.S.-T — Physics for Transfer
Code #1972

The Associate in Science in Physics for Transfer degree provides students with a thorough overview of the field of physics. Students will have demonstrated sufficient understanding in the fields of mechanics, electricity and magnetism, thermodynamics, mechanical and electromagnetic waves, modern physics, the scientific method and mathematics to successfully transfer to a four-year institution with a major in physics.

Note to Transfer Students:
The Physics for Transfer A.S.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate's degree in this major may be different from the requirements needed for the bachelor's degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

REQUARED PROGRAM.................................................. UNITS
PHYS 411* Mechanics of Solids and Fluids.................................4
PHYS 421* Electricity and Magnetism......................................4
PHYS 431* Heat, Waves, Light and Modern Physics...............4
MATH 400* Calculus I...........................................................5
MATH 401* Calculus II.........................................................5
MATH 402* Calculus III.......................................................5
TOTAL UNITS REQUIRED..................................................27
DEGREE TOTAL (INCLUDING GE)..........................................60

(continued on next page)
A.S.-T — Physics for Transfer continued

* Major courses which also fulfill a transfer General Education (GE) requirement (“double-counting”). Please note that there are limitations on double-counting — consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

Associate in Science in Physics for Transfer Degree

The Associate in Science in Physics for Transfer (A.S.-T) degree may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.

DEGREE

A.S.—Physics

CODE #1533

The Associate in Science in Physics degree provides students with a thorough overview of the field of physics. Students will have demonstrated sufficient understanding in the fields of mechanics, electricity and magnetism, thermodynamics, mechanical and electromagnetic waves, modern physics, the scientific method, mathematics and chemistry to successfully transfer to a four-year institution with a major in physics.

REQUIRED PROGRAM

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<th>Course</th>
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<td>PHYS 421</td>
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TOTAL UNITS REQUIRED 41

Associate Degree

The Physics Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

ASTRONOMY (ASTR)

ASTR 300

Introduction to Astronomy 3 Units
Prerequisite: None
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

ASTR 400

Astronomy Laboratory 1 Unit
Prerequisite: None
Corequisite: ASTR 300
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LAB
This course covers topics including constellations, star charts, and motions of the Earth, Moon and other astronomical bodies. Students will apply the techniques that astronomers use to study the Earth, Moon, Sun, planets and stars. The course includes observations with the naked eye, binoculars and/or telescopes.

ASTR 495

Independent Studies in Astronomy 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

ASTR 498

Work Experience in Astronomy 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Astronomy.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.
PHYSICS (PHYS)

PHYS 310
Conceptual Physics 3 Units
Prerequisite: None
Advisory: MATH 100 or 102; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC
This course provides a conceptual overview of Newtonian and modern physics for non-science and science students alike. The conceptual 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 just a classroom or laboratory activity, but as a part of his or her surroundings. The class is open to students with no previous physics background.

PHYS 350
General Physics 4 Units
Prerequisite: MATH 335 or a high school course in trigonometry with a grade of "C" or better; or equivalent.
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC, 54 hours LAB
This course, the first semester of General Physics, is a transferable course required for many life science and other majors and may also be taken for general education credit. Materials covered will include classical mechanics (including kinematics, statics, dynamics, Newton’s Laws, energy and momentum conservation, rigid body motion and oscillatory motion), fluid mechanics, mechanical waves (including sound), and thermodynamics. (C-ID PHYS 100S; C-ID PHYS 105)

PHYS 360
General Physics 4 Units
Prerequisite: PHYS 350 with a grade of “C” or better
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC, 54 hours LAB
This course, the second semester of General Physics, is a transferable course required for life science and other students and may also be taken for general education credit. Material covered will include classical electricity and magnetism (including electrostatics, electric fields and potential, magnetic fields, electromagnetic induction, Maxwell’s equations and electromagnetic radiation), DC and AC circuits, light, geometric and wave optics, special relativity, atomic structure, quantum physics and nuclear physics. (C-ID PHYS 100S; C-ID PHYS 110)

PHYS 370
Introductory Physics - Mechanics and Thermodynamics 5 Units
Prerequisite: MATH 350 with a grade of “C” or better
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 72 hours LEC, 54 hours LAB
This course, the first semester of the Introductory Physics sequence, is designed for students transferring to programs which require two semesters of calculus-based physics such as some life science and architecture programs. Material covered will include classical mechanics (kinematics, statics, dynamics, Newton’s Laws, work, conservation of mechanical energy and momentum, rotations and oscillations), fluid mechanics, mechanical waves including sound, and thermodynamics. Basic calculus skills will be assumed in the derivation and application of physical principles. (C-ID PHYS 100S; C-ID PHYS 105)

PHYS 380
Introductory Physics - Electricity and Magnetism, Light and Modern Physics 5 Units
Prerequisite: PHYS 370 with a grade of “C” or better
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 72 hours LEC, 54 hours LAB
This course, the second semester of the Introductory Physics sequence, is designed for students transferring to programs which require two semesters of calculus-based physics such as some life science and architecture programs. Material covered will include electrostatics, electrical circuits and devices, magnetism, light, and modern physics (including special relativity, quantum, atomic and nuclear physics). Basic calculus skills will be assumed in the derivation and application of physical principles. (C-ID PHYS 100S; C-ID PHYS 110)

PHYS 411
Mechanics of Solids and Fluids 4 Units
Prerequisite: MATH 400 with a grade of “C” or better
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC, 54 hours LAB
The course examines the fundamentals of mechanics: vectors, kinematics, Newton’s laws of motion, work, energy, momentum, conservation principles, oscillations, fluids, and gravitation. This course is recommended for students studying the Physical Sciences, Engineering, and Computer Information Science, as well as some students studying Architecture or Mathematics.
PHYS 421
Electricity and Magnetism 4 Units
Prerequisite: MATH 401 and PHYS 411 with grades of “C” or better
General Education: IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
This course examines the fundamentals of electricity and magnetism: electric and magnetic fields and forces, electric potentials, capacitors and dielectrics, DC and AC circuits, inductance, magnetic materials, Maxwell’s equations, electromagnetic waves, and the operation of general electrical circuit measuring devices including multimeters and oscilloscopes. This is the second course (although Physics 421 and 431 may be taken in either order) of the calculus-based physics sequence for physical science, engineering, and computer science majors. (C-ID PHYS 200S; C-ID PHYS 210)

PHYS 431
Heat, Waves, Light and Modern Physics 4 Units
Prerequisite: MATH 401 and PHYS 411 with grades of “C” or better
General Education: IGETC Area 5A
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
This course examines the fundamentals of thermodynamics, waves and modern physics: temperature, heat, kinetic theory of gases, thermodynamics, mechanical waves, sound, light reflection and refractions, interference and diffraction phenomena, optics, lasers, special relativity, quantum physics, atomic physics, nuclear physics, and particle physics. (C-ID PHYS 200S; C-ID PHYS 215)

PHYS 495
Independent Studies in Physics 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

PHYS 498
Work Experience in Physics 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Physics.
Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.
Program Description
This CRC program offers courses designed for students in the Agriculture, Agriculture Business, and Horticulture programs.

Career Opportunities
See Career Opportunities in Agriculture Business and Horticulture

Highlights
Courses included in two degree programs and a variety of certificates

NOTE:
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

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PLANT SCIENCE (PLTS)

PLTS 299
Experimental Offering in Plant Science .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

PLTS 300
Introduction to Plant Science 3 Units
Prerequisite: None
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
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. Field trips may be required.

PLTS 310
Soils, Soil Management, and Plant Nutrition 3 Units
Same As: HORT 302
Prerequisite: HORT 300 or PLTS 300 with a grade of “C” or better
General Education: AA/AS Area IV
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
This course provides a basic knowledge of the physical, chemical, and biological properties of soils. 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. Field trips may be required. This course is the same as Hort 302, and only one may be taken for credit.

PLTS 320
Viticulture and Enology 3 Units
Prerequisite: None
Advisory: HORT 300 or PLTS 300
Course Transferable to UC/CSU
Hours: 36 hours LEC; 54 hours LAB
The course is an introduction to viticulture and enology practices and will explore the history, principles, and practices of wine grape production and an introduction to enology. Additional topics will cover the history of wine grapes, the current status of wine grape industry, and the classification of wine grapes. The basic principles of vineyard establishment and management will be covered as well as the basic principles of enology. Field trips may be required.
PLTS 332
Integrated Pest Management 3 Units
Same As: HORT 303
Prerequisite: HORT 300 or PLTS 300 with a grade of "C" or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is a study of local plant pests including weeds, diseases, invertebrates, and vertebrates. It includes recognition of symptoms and causes, life cycle of the pests, host and habitat relationships, and the integrated pest management strategies and best management practices to achieve control. Field trips may be required. This course is the same as HORT 303, and only one may be taken for credit.

PLTS 334
Agriculture Chemicals/Safety and Calibration 3 Units
Prerequisite: None
Advisory: PLTS 300 or HORT 300, PLTS 310 or HORT 302, PLTS 332 or HORT 303
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course covers the techniques of chemical pesticide application and the safe and effective use of pesticides essential for the production of food, fiber, and ornamental crops, as well as the laws, regulations, and safety requirements for individuals preparing to obtain a Qualified Applicator’s Certificate (QAC) or Qualified Applicator’s License (QAL) through the California Department of Pesticide Regulation. Topics include applicator and field worker safety, pesticide type, formulation, and mode of action, pesticide use, application methods and chemical placement, equipment calibration, pesticide regulation, applicator licensing and certification, pest monitoring, and accepted standards for integrated pest management. Environmental concerns regarding pesticide residue, pesticide resistance, surface and groundwater contamination, and other exposures will be covered. Field trips may be required.

PLTS 336
Weeds and Weed Management 3 Units
Prerequisite: None
Advisory: PLTS 300 or HORT 300, PLTS 310 or HORT 302, PLTS 332 or HORT 303
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course provides an introduction to weeds and the management of weed species in agricultural, horticultural, and specialty environments. Topics include weed life cycle and growth habit, weed identification, and an exploration of the ecology of weeds in natural and managed ecosystems. This course will focus on the practical aspects of weed management, including mechanical, biological and chemical approaches. The efficacy and modes of action of the major groups of herbicides are covered, along with discussions concerning herbicide resistance in crops and weeds and the environmental issues surrounding the use of herbicides. Students will gain experience in weed identification, herbicide selection and use, and practical weed management through hands-on laboratory activities and exercises. Field trips may be required.

PLTS 495
Independent Studies in Plant Science 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

PLTS 498
Work Experience in Plant Science 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Plant Science.
Course Transferable to CSU
Hours: 18 hours LEC; 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related paid work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

PLTS 499
Experimental Offering in Plant Science .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB

Program Description
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 Opportunities
Attorney
Budget Analyst

Businessperson
Campaign Aide/Elected

City Planner
Foreign Service Officer

Government Worker
Legislative Aide/Lobbyist

Military Officer
Occupational Analyst

Personnel Manager
Political Scientist

Researcher/Research Analyst

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

NOTE:
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

POLITICAL SCIENCE (POLS)

POLS 301
Introduction to Government: United States 3 Units
Prerequisite: None
Advisory: ENGWR 101 with a grade of "C" or better; or equivalent skills demonstrated through the assessment process for eligibility for ENGWR 300.
General Education: AA/AS Area V(a); CSU Area D8; IGETC Area 4H
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

POLS 302
Introduction to Government: Foreign 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); CSU Area D8; IGETC Area 4H
Course Transferable to UC/CSU
Hours: 54 hours LEC
This is a comparative study and analysis of political systems, ideologies, institutions, policies, cultures, histories, and the development of selected foreign governments. Special emphasis is placed on the cultural and social dimensions of political behavior and attitudes in connection with governmental and political practices typical of particular geographical regions. Coverage includes an examination of selected developed and lesser developed nation-states from a global perspective.

POLS 304
Introduction to Government: California 3 Units
Prerequisite: None
Advisory: ENGWR 300
General Education: CSU Area D2; CSU Area F3; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course covers the essential organization, institutions, and processes of California state and local government. It fulfills the California State University requirement for state and local government, but not the requirement for the U.S. Constitution.
POLS 310
Introduction to International Relations 3 Units
Prerequisite: None
Advisory: ENGRW 101 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process for eligibility for ENWR 300.
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
This is an 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 Central and Eastern Europe, Russia, the United States, the major western allies, China, and the lesser developed world.

POLS 311
International Political Economy 3 Units
Prerequisite: None
Advisory: ENGRW 300; or equivalent skills demonstrated through the assessment process.
General Education: CSU Area D2; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is designed to introduce students to the major theories, institutions and issues in international political economy. International political economy examines the interaction between politics and economics on a global scale; in particular, how political forces influence markets, and how market forces influence politics. In this course of study, students will examine the major theoretical perspectives on political economy, such as mercantilism, liberalism, Marxism and statism. Students are then introduced to the major components of the international economy: multilateral trade, domestic trade policy, international finance and currency policy. Last, this course focuses on several major issues in international political economy. Examples might include the gap between the developed and developing world, the globalized economy, the role of transnational corporations, the political economies of oil, migration, food, or the environment.

POLS 312
Politics of the Middle East 3 Units
Prerequisite: None
Advisory: ENGRW 101
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
Area Studies courses cover the government and politics of selected nations within a distinct geopolitical area of the world in order to gain understanding of the institutions and dynamics of the area. This Area Studies survey course is designed to give students an understanding of the Middle East. It covers the region in biblical times, its history as part of the Ottoman Empire, its independence and inclusion in the Mandate system and its modern day existence through the twentieth century. The impact of religion, colonialism, the natural resource situation, socio-economics, ideology, conflict and resolution and foreign and domestic policies will be examined in the region on a country-by-country basis. The Palestinian Question, from both the Israeli and Palestinian perspectives will also be analyzed. The course includes an examination of dominant political institutions, actors, processes and belief systems within the context of political culture and history and an analysis of area political economy and foreign policy in the environment of global interdependence. Countries to be covered include but are not limited to Mexico, Guatemala, El Salvador, Nicaragua, Venezuela, Peru, Bolivia, Colombia, Ecuador, Chile, Argentina, Uruguay, Cuba, Haiti, Jamaica and the Dominican Republic. The course concludes with a summation of the region as it stands today and an assessment of where it is likely to go in the near future.

POLS 313
Latin America 3 Units
Prerequisite: None
Advisory: ENGRW 101
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
Area Studies courses cover the government and politics of selected nations within a distinct geopolitical area of the world in order to gain understanding of the institutions and dynamics of the area. This Area Studies survey course is designed to give students an understanding of Latin America. It covers the region in the pre-Columbian era, its history as part of the Spanish Empire, the independence movements of the nineteenth century and the modern day existence of each nation state in the area to the twenty-first century. The impact of religion, colonialism, the natural resource situation, socio-economics, ideology, conflict and resolution and foreign and domestic policies will be examined in the region on a country-by-country basis. The course includes an examination of dominant political institutions, actors, processes and belief systems within the context of political culture and history and an analysis of area political economy and foreign policy in the environment of global interdependence. Countries to be covered include but are not limited to Mexico, Guatemala, El Salvador, Nicaragua, Venezuela, Peru, Bolivia, Colombia, Ecuador, Chile, Argentina, Uruguay, Cuba, Haiti, Jamaica and the Dominican Republic. The course concludes with a summation of the region as it stands today and an assessment of where it is likely to go in the near future.

POLS 314
Modern Europe and the Unification Process 3 Units
Prerequisite: None
Advisory: ENGRW 101
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
Area Studies courses cover the government and politics of selected nations within a distinct geopolitical area of the world in order to gain understanding of the institutions and dynamics of the area. This Area Studies survey course is designed to give students an understanding of modern Europe and the trends, processes and issues surrounding unification.

POLS 315
Pacific Rim 3 Units
Prerequisite: None
Advisory: ENGRW 101
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
Area Studies courses cover the government and politics of selected nations within a distinct geopolitical area of the world in order to gain understanding of the institutions and dynamics of the area. This Area Studies survey course is designed to give students an understanding of the Pacific Rim and its trends, processes and issues.
POLS 317  
Global Studies: Africa  
3 Units  
Prerequisite: None
Advisory: ENGRWR 101
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4H
Course Transferable to UC/CSU
Hours: 54 hours LEC

Global Studies courses cover the government and politics of selected nations within a distinct geopolitical area of the world in order to gain understanding of the institutions and dynamics of the area. This Global Studies survey course is designed to give students an understanding of Africa. It covers the region's history, its contemporary movements and the modern day existence of nation states in the area to the twenty-first century. The impact of history, colonialism, the natural resource situation, socio-economics, ideology, conflict and resolution and foreign and domestic policies will be examined in the region on a country-by-country basis. The course includes an examination of dominant political institutions, actors, processes and belief systems within the context of political culture and history and an analysis of area political economy and foreign policy in the environment of global interdependence. The course concludes with a summation of the region as it stands today and an assessment of where it is likely to go in the near future.

POLS 318  
Global Studies: Central Asia  
3 Units  
Prerequisite: None
Advisory: ENGRWR 300
General Education: CSU Area D2; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC

Global Studies courses cover the government and politics of selected nations within a distinct geopolitical area of the world in order to gain understanding of the institutions and dynamics of the area. This Global Studies survey course is designed to give students an understanding of Central Asia. It covers the region's history, its natural resource situation, socio-economics, ideology, conflict and resolution and foreign and domestic policies on a country-by-country basis. The course includes an examination of dominant political institutions, actors, processes and belief systems within the context of political culture and history and an analysis of area political economy and foreign policy in the environment of global interdependence. The course concludes with a summation of the region as it stands today and an assessment of where it is likely to go in the near future.

POLS 319  
Global Studies: Southeast Asia  
3 Units  
Prerequisite: None
Advisory: ENGRWR 300
General Education: CSU Area D2; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC

Global Studies courses cover the government and politics of selected nations within a distinct geopolitical area of the world in order to gain understanding of the institutions and dynamics of the area. This Global Studies survey course is designed to give students an understanding of Southeast Asia. It covers the region's history, its natural resource situation, socio-economics, ideology, conflict and resolution and foreign and domestic policies on a country-by-country basis. The course includes an examination of dominant political institutions, actors, processes and belief systems within the context of political culture and history and an analysis of area political economy and foreign policy in the environment of global interdependence. The course concludes with a summation of the region as it stands today and an assessment of where it is likely to go in the near future.

POLS 320  
Introduction to Political Theory  
3 Units  
Prerequisite: None
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC

In this course, students will examine theoretical approaches to politics and ways of thinking about politics, covering important thinkers and topics during the ancient, medieval, and modern periods.

POLS 324  
Revolutions & Ideologies  
3 Units  
Prerequisite: None
Advisory: ENGRWR 101
General Education: CSU Area D; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC

This course seeks to study ideologies and revolutions. Revolutions herald change in political systems. They can be based on ideologies or economic, religious or other differences.

POLS 495  
Independent Studies in Political Science  
1-3 Units  
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB

An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

POLS 499  
Experimental Offering in Political Science  
.5-4 Units  
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
Psychology
Humanities & Social Science

DEGREE
A.A.-T — Psychology for Transfer

Program Description
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 Opportunities 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 Opportunities
Career Opportunities as educators, scientists, consultants, practitioners and mental health professionals with some of the following titles:

- Administration
- Childcare Worker
- College Counselor
- Counselor
- Marketing Specialist
- Probation Officer
- Psychologist
- Public Survey
- Training/Development
- Ward Attendant

Most of the Career Opportunities listed above require more than two years of college study.

Highlights
- Exemplary instructional staff that includes authors and researchers
- Varied course offerings including psychology of women and human sexuality
- Preparation for University transfer
- Psychology courses complement AA degrees and/or certificates in many other fields: communications media, early childhood education, human services, interdisciplinary studies, marketing/business, health/medicine, consumer affairs, and the military.

**NOTE:**
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

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DEGREE
A.A.-T — Psychology for Transfer

CODE #1961

The Cosumnes River College Associate in Arts in Psychology for Transfer Degree is designed to facilitate successful transfer to baccalaureate psychology degree programs. This degree provides students with the lower division breadth and depth of the field of psychology. Additionally, this degree exposes students to the core principles and practices in the field. Students will learn to: apply psychological theory and the scientific method; compare and contrast the major theoretical orientations in psychology; integrate content knowledge, cognitive and affective skills and technical proficiency; evaluate psychological data; apply psychological principles to the development of interpersonal, occupational and social skills; and recognize the complexity of social, cultural, and international diversity and the principles of equity, justice and inclusion in their lives.

**Note to Transfer Students:**
The Psychology for Transfer A.A.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

**REQUIRED PROGRAM**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>PSYC 300*</td>
<td>General Principles</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 312*</td>
<td>Biological Psychology</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 320*</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 371*</td>
<td>Life Span Developmental Psychology (3)</td>
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<tr>
<td>or SOC 300*</td>
<td>Introductory Sociology (3)</td>
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<tr>
<td>PSYC 330*</td>
<td>Introductory Statistics for the Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 335*</td>
<td>Research Methods in Psychology</td>
<td></td>
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<td>3 units from the following:</td>
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<td>3¹</td>
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<tr>
<td>PSYC 320*</td>
<td>Social Psychology</td>
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<tr>
<td>PSYC 340*</td>
<td>Abnormal Behavior</td>
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<tr>
<td>PSYC 353*</td>
<td>Psychology of Adjustment</td>
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<tr>
<td>PSYC 356*</td>
<td>Human Sexuality</td>
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<td>PSYC 360*</td>
<td>Psychology of Women</td>
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<td>PSYC 368*</td>
<td>Cross Cultural Psychology</td>
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<tr>
<td>PSYC 371*</td>
<td>Life Span Developmental Psychology (3)</td>
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</tr>
</tbody>
</table>

**TOTAL DEGREE UNITS REQUIRED:**                                   **19**

**DEGREE TOTAL (INCLUDING GE):**                                    **60**

1 If PSYC 320 or PSYC 371 is not taken as part of the required core sequence, a student may choose it as one of the options listed above.

* Major courses which also fulfill a transfer General Education (GE) requirement (“double-counting”). Please note that there are limitations on double-counting - consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

- Program requirements continued on next page -
A.A.-T — Psychology for Transfer continued

Associate in Arts in Psychology for Transfer Degree
The Associate in Arts in Psychology for Transfer (A.A.-T) degree may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.

PSYCHOLOGY (PSYC)

PSYC 300
General Principles 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); CSU Area D9; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introduction to the scientific study of human behavior. Topics include scientific method, the biological basis of behavior, sensation, perception, consciousness, conditioning and learning, memory, cognition, developmental psychology, motivation, emotion, stress and health, personality, abnormal psychology, psychotherapy, and social psychology. PSYC 300 is designed for psychology majors, behavioral science majors, and other students who desire a comprehensive overview of general principles of contemporary psychology.

PSYC 312
Biological Psychology 4 Units
Prerequisite: PSYC 300 with a grade of “C” or better
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; CSU Area D9; IGETC Area 5B
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course examines the biochemical, cellular, and organismal physiological substrates of normal and abnormal behavior. The course content focuses on interactions of the central nervous system, peripheral nervous system, endocrine and immune systems to produce consciousness, sensation, perception, thinking, motivation and emotion. These areas will be addressed within an evolutionary context that emphasizes developmental plasticity of the individual and the species. Current methods of obtaining data (e.g. neuroimaging techniques) will be examined and evaluated. Students will be required to perform anatomical identification of brain structures using a mammalian brain (e.g. sheep brain). (C-ID PSY 150)

PSYC 320
Social Psychology 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); CSU Area D9; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course focuses on the scientific study of human interaction, with an emphasis on the individual within a social context. Study includes: social perception, social cognition, attitudes and attitude change, the self and social identity, prejudice, interpersonal attraction, close relationships, social influence, prosocial behavior, aggression, and group behavior. (C-ID PSY 170)

PSYC 330
Introductory Statistics for the Behavioral Sciences 3 Units
Prerequisite: MATH 120 or 125 with a grade of “C” or better; or the equivalent.
General Education: AA/AS Area II(b); CSU Area B4; IGETC Area 2
Course Transferable to UC/CSU
See UC Limitations & Counselor
Hours: 54 hours LEC
This course focuses upon the concepts and applications of descriptive and inferential statistics in psychology and other behavioral sciences. Topics include: descriptive statistics; probability and sampling distributions; parametric and nonparametric statistical methods, hypothesis testing, statistical inference and power; correlation and regression; chi-square; t-tests; and analysis of variance procedures. Application of both hand computation and statistical software to data in a social science context will be emphasized to include the interpretation of the relevance of the statistical findings.

PSYC 335
Research Methods in Psychology 3 Units
Prerequisite: PSYC 300 and 330 with grades of “C” or better
General Education: AA/AS Area II(b); CSU Area D9; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides an overview of the methodologies used in experimental, quasi-experimental and non-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. (C-ID PSY 200)

PSYC 340
Abnormal Behavior 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); AA/AS Area III(b); CSU Area D9; CSU Area E1; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an exploration of the broad questions of normality and abnormality. It offers the investigation of specific mental, emotional, and behavioral difficulties and current approaches to psychological intervention including present community mental health practice. This course considers the contribution of biological, psychological and social factors to the development and persistence of behavior disorders. PSYC 340 is a useful course for students majoring in Human Services and/or preparing for a career in psychology or the helping professions. (C-ID PSY 120)

PSYC 353
Psychology of Adjustment 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); AA/AS Area III(b); CSU Area D9; CSU Area E1; IGETC Area 4I
Course Transferable to UC/CSU
Hours: 54 hours LEC
In this course, students will explore the core concepts in psychology and apply them to everyday life experiences. The focus of this course will be on self-development and self-awareness, and students will learn how to use psychological concepts to live more fully and productively. Students will also learn to analyze and think critically about psychological theories and research, and they will learn to use these concepts in an informed manner. Topics include stress and coping, substance abuse, psychological disorders and treatment, motivation and emotions, learning and behavioral change, attitudes and values, interpersonal relationships, and lifespan development. (C-ID PSY 115)
PSYC 356
Human Sexuality 3 Units
Prerequisite: None
General Education: AA/AS Area III(b); CSU Area E1; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course provides a balanced scientific understanding of human sexual thoughts, feelings, and behavior grounded in both female and male perspectives and experiences. Course topics include an examination of the methodology of sexology, gender issues, sexual anatomy and physiology, sexual arousal and response, love and communication, sexual behavior patterns, sexual orientations, contraception, conception and childbirth, sexual development across the lifespan, adult living patterns, sexual difficulties and solutions, sexually transmitted diseases, atypical sexual behavior, sexual coercion, and pornography and prostitution. (C-ID PSY 130)

PSYC 360
Psychology of Women 3 Units
Prerequisite: None
General Education: AA/AS Area III(b); CSU Area E1; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course focuses on understanding of the thoughts, feelings, perceptions, and behavior of girls and women, as well as the impact of sex and gender on women's lives. Course topics include an examination of relevant research methodologies; theoretical perspectives; gender stereotypes; historical and contemporary images of women; gender comparisons; prenatal, infant, childhood, adolescent, and adult development; gender identity; sexuality and sexual orientations; menstruation and menopause; pregnancy, birth and postpartum; motherhood and mothering; physical and mental health; relationships; adult living patterns; ability and achievement; paid and unpaid work; violence towards women; and the sexual exploitation of women. The critical evaluation of theory and research findings is emphasized.

PSYC 368
Cross Cultural Psychology 3 Units
Prerequisite: None
General Education: AA/AS Area IV(b); AA/AS Area VI; CSU Area D3; CSU Area D9; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course explores the impact of cultural influences on the psychological and individual development of ethnic group members. Emphasis will be placed on integrating traditional theoretical approaches and current cross-cultural statistical research and theory in the study of African-Americans, Asian Americans, Hispanic Americans, Native Americans, gays & lesbians, the elderly, and the disabled.

PSYC 371
Life Span Developmental Psychology 3 Units
Prerequisite: None
General Education: CSU Area D; CSU Area E; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course examines psychological development across the lifespan, from conception to death. The course will focus on neurological, cognitive, cultural, and socio-emotional domains of developmental psychology, as well as the interaction among these domains. The course will provide a theoretical background based on empirical studies in the area of developmental psychology and other related disciplines. This course is designed to provide a foundation for careers in educational, social, psychological, and medical fields as well as provide students with a better understanding of one's own developmental process. (C-ID PSY 180)

PSYC 495
Independent Studies in Psychology 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

PSYC 499
Experimental Offering in Psychology .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
AREAS OF STUDY
Advertising / Public Relations Program
Broadcast Journalism Program
Digital Media Program
Film / Digital Cinema Production Program
Radio Production Program
Television Production Program

Program Description
This instructional program is designed to train students for skills needed in jobs requiring basic knowledge in Radio, Television or Film Production. Training includes classes in radio, television and film, broadcasting, cinematography, broadcast and print journalism, multimedia/DVD production and design. 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 Radio, Television & Film Production program consists of a core curriculum with options in specific areas of interest. A knowledge of keyboarding is recommended.

The Associate of Arts degree can be obtained upon completion of a total of 60 units, including units in the major, general education requirements and electives as needed.

Career Opportunities
See the corresponding pages for the specific Career Opportunities in each of the above fields of study

NOTE:
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

RADIO, TV, AND FILM PRODUCTION (RTVF)

RTVF 110
Automated Radio
3 Units
Prerequisite: None
Advisory: COMM 301, RTVF 312, and RTVF 315
Hours: 18 hours LEC; 108 hours LAB
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.

RTVF 295
Independent Studies in Radio, Television, and Film
1-3 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

RTVF 299
Experimental Offering in Radio, Television and Film Production
.5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

RTVF 300
Mass Media and Society
3 Units
Same As: JOUR 310
Prerequisite: None
General Education: AA/AS Area V(b); CSU Area D7; IGETC Area 4J
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. This course is the same as JOUR 310, and only one may be taken for credit. (C-ID JOUR 100)

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo
RTVF 301
Introduction to Telecommunication 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This is a beginning course in the radio, television and film production program. Origin, development and functions of radio, television and emerging technologies in modern society are presented. Terminology, concepts, and telecommunication services are covered. This course is required for Television Production majors.

RTVF 302
Introduction to Digital Media 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
The course will explore the field of current discourse on digital media production, issues and practices. Instruction will include an introduction to the forms and aesthetics of media (text, graphic, audio and video), delivery systems (Internet, CD-ROM, DVD, etc.), production processes, and roles (content, writing, graphics, authoring, and project management). Specialized topics will include perspectives on media audiences, file formats, sampling, compression, and authoring software.

RTVF 304
Introduction to Multimedia 3 Units
Prerequisite: None
Advisory: CISC 302 or JOUR 330
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course is designed to familiarize students with designing and producing multimedia presentations. Emphasis will be given to developing skills in producing photographic, graphic, video and audio materials used for the World Wide Web and multimedia presentations. 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.

RTVF 305
Film History 3 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
Course Transferable to UC/CSU
Hours: 54 hours LEC
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. This course is the same as FMS 305, and only one may be taken for credit.

RTVF 306
Introduction to Media Aesthetics and Cinematic Arts 3 Units
Prerequisite: None
General Education: AA/AS Area II(b)
Course Transferable to CSU
Hours: 54 hours LEC
This course serves as an introduction to the analysis of film and television texts. It explores broad questions of form, content, aesthetics, history and culture. The course surveys a wide variety of productions, national cinemas, and film movements. Topics include modes of production, narrative and non-narrative forms, visual design, editing, sound, genre, ideology and critical analysis.

RTVF 310
History of American Radio 1920-1950 1 Unit
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC
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.

RTVF 312
Radio Studio Operations 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
This course focuses on the theory and operations of audio broadcast equipment and the control room. This course must be taken prior to Radio Workshop.

RTVF 314
Radio Drama 1 Unit
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LAB
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.

RTVF 315
Voice and Diction for Broadcasting 3 Units
Prerequisite: None
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is intended for all majors relating to broadcasting including radio production, communications media and television production. This course focuses on individual speech improvement through the study and practice of voice control and manipulation, proper breathing, and diction. Emphasis is placed on achieving correct pronunciation, enunciation, and voice production. Students will build on basic theories and practice of the interpretation of various oral selections chosen by the instructor and by the student.
Introduction to Radio Workshop  
3 Units  
Prerequisite: None  
Course: RTVF 316  
Course Transferable to CSU  
Hours: 18 hours LEC; 108 hours LAB  
Through lectures and supervised labs, this course explores current radio industry trends and practices. Students in the course will also take part in the planning and producing of original radio programs for broadcast over the campus radio station, using both the college and the community as subject matter.

Radio Workshop  
2 Units  
Prerequisite: None  
Advisory: RTVF 312 and 316  
Course: RTVF 317  
Course Transferable to CSU  
Hours: 108 hours LAB  
This course provides hands-on skills in advanced radio production, including the 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. The course provides practice in the techniques of live broadcasting.

Community Radio Production  
1 Unit  
Prerequisite: None  
Course: RTVF 318  
Course Transferable to CSU  
Hours: 54 hours LAB  
This is 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.

Digital Audio Production  
3 Units  
Prerequisite: None  
Course: RTVF 319  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course will serve as an introduction to the theory and practice of audio production in radio, television, film and digital recording applications. Students will read articles from scholarly and commercial literature, learn the fundamentals of the design of recording digital equipment, and carry out planned lab activities.

Basic Film/Video Camera Techniques  
3 Units  
Prerequisite: None  
Course: RTVF 320  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
The course provides an introduction to the theory, terminology, and operation of single camera film and video production, including composition and editing techniques, camera operation, portable lighting, video recorder operation, audio control in the single and double-sound systems, film stock and digital video formats and editing. This course focuses on the aesthetics and fundamentals of scripting, producing, and directing on location, incorporating multimedia, and postproduction for Hollywood film, broadcasting, and cable or business media.

Television Production  
3 Units  
Prerequisite: None  
Course: RTVF 331  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course covers the theory and operation of a television studio and control room. An introduction to the use of studio equipment is provided including cameras, a switcher, character generator, audio mixer, video recorders, microphones and studio lighting. Real time studio work in coordination with control room use is stressed. Special effects including live chroma-key, wipes, and digital video effects are available. An introduction to nonlinear digital video editing is provided.

Advanced Television Production  
2 Units  
Prerequisite: RTVF 331 with a grade of “C” or better  
Course: RTVF 332  
Course Transferable to CSU  
Hours: 108 hours LAB  
Within this course, students plan the total operational process for actual television programs (on air or closed-circuit), as well as participate in and take responsibility for various aspects of the finished program, such as audio, switching, lighting, sets, graphics and film.

Video Workshop  
2 Units  
Prerequisite: RTVF 332 with a grade of “C” or better  
Course: RTVF 333  
Course Transferable to CSU  
Hours: 108 hours LAB  
This course is designed for the production of new types of programming for cable, business, industry and special groups - religious, ethnic, minorities, children, and women.

Television Production Workshop I  
2 Units  
Prerequisite: RTVF 331 with a grade of “C” or better  
Course: RTVF 334  
Course Transferable to CSU  
Hours: 108 hours LAB  
Within this course, students plan the total operational process for actual television programs (on air or closed-circuit), as well as participate in and take responsibility for various aspects of the finished program, such as camera operation, audio, switching, lighting, sets, graphics, editing and directing.

Television Production Workshop II  
2 Units  
Prerequisite: RTVF 340 with a grade of “C” or better  
Course: RTVF 341  
Course Transferable to CSU  
Hours: 108 hours LAB  
Within this course, students gain additional experience in creating television programming for cable TV, Internet or DVD distribution. Besides production experience, they may take more active roles as producers, directors and production managers. Participation as production crew positions and with field remotes are required.

Television Production Workshop III  
2 Units  
Prerequisite: RTVF 341 with a grade of “C” or better  
Course: RTVF 342  
Course Transferable to CSU  
Hours: 108 hours LAB  
This course is designed for the production of new types of video programming for cable, business, industry and special groups - religious, ethnic, minorities, children, and women.
This course is designed for students preparing for industry jobs as producers, directors and production managers. Students provide focused attention in the process of pre-production, production and post-production. Participation as production crew positions and with field remotes is required.

**RTVF 350**
Intermediate Film / Digital Cinema Production
3 Units
Prerequisite: RTVF 330 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB

This course provides a hands-on project-based opportunity for students to create single-camera projects using a Hollywood-style field production. Students focus on producing and directing skills as well as understanding the roles of field production crews. Development of narrative and documentary ideas for field production using both guerrilla and conventional set techniques are emphasized. Topics include scriptwriting, cinematography, directing, and non-linear editing. Off-campus field trips or production opportunities outside of class time may be required.

**RTVF 351**
Introduction to Motion Graphics for Film: Apple Motion
3 Units
Prerequisite: None
Advisory: Basic knowledge of the Apple OS is beneficial but not required.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB

This hands-on course will familiarize students with Apple’s Motion software for professional motion graphics in film and video. The course comprehensively covers working with Motion’s real-time design engine and interface for behavior-based animation with key-frame control. Students gain hands-on experience working in 3-D space including particle, text, traditional camera control and motion path manipulation. Special effects creation using filters and the Replicator are featured. Students will experiment with compositing and learn how Motion works seamlessly with other Final Cut Pro Studio applications. Note: Students may choose to take an optional Apple software certification exam at the end of this course for an additional fee.

**RTVF 353**
Color Correction for Film and Video: Apple Color
3 Units
Prerequisite: RTVF 362 with a grade of “C” or better
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB

This hands-on course examines professional color correction for finishing and grading film and video. Learning begins with the fundamentals of color grading using Final Cut Pro color correction filters followed by a full exploration of Apple’s Color software for secondary grading, including scene matching, using vignettes to isolate and track regions, creating advanced color effects and looks, and adjusting the composition and framing of a shot. Students may choose to pay an optional fee and take an Apple software certification exam at the end of this course.

**RTVF 354**
Audio Editing for Film & Video Post Production
3 Units
Prerequisite: None
Advisory: RTVF 362; For best success, students taking Audio Editing for Film and Video using the Soundtrack Pro software, should complete RTVF 362 before taking this course.
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB

This hands-on course provides understanding of how to edit audio and video files, repair field recordings, perform multi-track arranging and mixing, synchronize audio and video, analyze and fix common audio problems, and perform other creative sound design techniques. This course focuses on practical, professional techniques used to add music and sound effects to video and multimedia projects. This course is particularly designed for students who want to learn more about the basics of audio content creation, editing, and mixing in Soundtrack Pro as part of the Apple Final Cut Pro Studio. Students may choose to pay an optional fee and take an Apple software certification exam at the end of this course.

**RTVF 355**
Audio Editing for Film & Video Post Production
3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB

This course is designed for students preparing for industry jobs as producers, directors and production managers. Students provide focused attention in the process of pre-production, production and post-production. Participation as production crew positions and with field remotes is required.
RTVF 363
Introduction to DVD Production:  
iDVD & DVD Studio Pro  
Prerequisite: RTVF 362 with a grade of “C” or better  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course examines the history and future of the DVD video format after the most successful launch ever of a consumer electronics format. Students learn how to design, produce and burn a DVD on a personal computer. Students explore the methods of integrating video, audio, text, graphics and user interactivity through the use of DVD and DVD Studio Pro software. Students explore DVD’s ability to integrate with the Internet. Students use a professional approach to real world DVD production processes. Students are expected to already have exposure to Adobe Photoshop and Apple Final Cut Pro.

RTVF 365
Intermediate Film & Video Editing: Final Cut Pro  
Prerequisite: RTVF 362 with a grade of “C” or better  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
This course is designed for previous users of Apple’s Final Cut Pro or for those wishing to increase their overall effectiveness with this powerful film and video editing software. This course helps students with improved project workflow, trimming shortcuts, advanced compositing, special effects and distribution for broadcast and film or in emerging technologies. Instruction also covers tips and tricks when using filters, nesting sequences and using variable speed controls to get movie quality effects. Note: Students may choose to take an optional Apple software certification exam at the end of the course for an additional fee.

RTVF 370
Broadcast Writing & Announcing  
Prerequisite: None  
Course Transferable to CSU  
Hours: 36 hours LEC; 54 hours LAB  
Students learn fundamental techniques of broadcasting with an emphasis upon speaking and writing. Students practice with specified formats in the television studio and radio workshop. Lab experiences and review of microphone use and performance in front of the camera are included. A variety of non-news writing styles are explored.

RTVF 371
Hollywood TV and Film Studios:  
A Behind the Scenes Experience  
Prerequisite: RTVF 330 or 331 with a grade of “C” or better  
Course Transferable to CSU  
Hours: 18 hours LEC  
This course provides an overview and introduction to video and film production techniques utilized by professionals in and around Hollywood, CA. Students will learn about the operation of motion picture and television studios from behind the scenes. A variety of topics including preproduction, production and post-production techniques, set design and lighting, and the history of Hollywood-style production will be included. Guest speakers will provide a professional perspective on entry-level job skills and analysis of current workforce development.

RTVF 372
Sports Broadcasting  
Prerequisite: None  
Course Transferable to CSU  
Hours: 18 hours LEC; 108 hours LAB  
Introduction to sports broadcasting teaches students the craft of creating studio and field production for radio and television. Coordinated coverage of live sporting events, sports announcing, and technical production problems will each be examined and utilized in pre-recorded and live-to-tape television broadcasts. Extensive off-campus production opportunities may be required.

RTVF 374
Multiple Camera Remote TV Production (TRUCK)  
Prerequisite: None  
Advisory: RTVF 330 or 331  
Course Transferable to CSU  
Hours: 54 hours LAB  
This is a course designed to enable students to gain skills in the operation and use of multiple camera remote television production equipment and techniques. Pre-production planning skills and truck set-up and use are included. The creation of programming for local Access cable television broadcast is likely. This is an open entry/open exit class. Students may enter the course at any time during the first 12 weeks of the semester, with variable start and stop times depending upon each semester’s production schedule. This course is graded on a credit/no credit basis only.

RTVF 376
Advertising  
Same As: MKT 314  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54 hours LEC  
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. This course is the same as MKT 314, and only one may be taken for credit.

RTVF 378
Acting for the Camera  
Same As: TA 356  
Prerequisite: RTVF 370 or TA 350 with a grade of “C” or better  
General Education: CSU Area C1  
Course Transferable to UC/CSU  
Hours: 36 hours LEC; 54 hours LAB  
This is an 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 are enacted and played back on videotape for class critiquing. Students experience single camera and multiple-camera studio production and performance techniques. This course is the same as TA 356, and only one may be taken for credit.

RTVF 379
Television Performance Techniques  
Prerequisite: None  
Course Transferable to CSU  
Hours: 54 hours LAB  
A short-term course designed to enable students to understand television performance and how it relates to the operational use of video/film and audio equipment and techniques. Performance in front of a TV/Film camera, guidelines for appropriate dress and make-up are included.
RTVF 380
Broadcast Journalism 3 Units
Prerequisite: None
Advisory: JOUR 300 and RTVF 370; and the ability to type.

Course Transferable to CSU
Hours: 36 hours LEC; 54 hours LAB
The student will gain a general knowledge of the field of radio/television news writing and production. Through theoretical and practical application, the student will understand and practice writing, filming, editing, and broadcasting radio and television news.

RTVF 495
Independent Studies in Radio, Television, and Film 1-3 Units
Prerequisite: None

Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

RTVF 498
Work Experience in Radio, Television and Film 1-4 Units
Prerequisite: None
General Education: AA/AS Area Ill(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Radio, Television and Film.

Course Transferable to CSU
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

RTVF 499
Experimental Offering in Radio, Television and Film Production .5-4 Units
Prerequisite: RTVF 330 (Basic Film/Video Camera Techniques) or 331 (Television Production) with a grade of “C” or better

Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.A.—Radio Production

CERTIFICATE OF PROFICIENCY
Radio Production

Program Description
This Program concentrates on the audio portion of broadcasting, with emphasis on performing, editing, production and knowledge of radio programming. Students will learn to prepare both professional live and pre-recorded radio programs for the campus internet radio station. This option can lead to an entry-level position with a commercial radio station.

Career Opportunities
Disc Jockey  Announcer
Sportscaster  Studio Technician
Newscaster  Audio Technician
Radio Producer  Promotions Coordinator

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

Highlights
- Internship opportunities at local radio stations
- Practical experience at the campus radio station, Internet Broadcasting and Podcasting on the campus radio station.

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.A.—Radio Production
CODE #1062

REQUIRED PROGRAM
Mass Media and Society ........................................... 3
Radio Studio Operations ......................................... 3
Voice and Diction for Broadcasting ............................. 3
Introduction to Radio Workshop ............................... 3
Introduction to Public Speaking ............................... 3
Argumentation and Debate ....................................... 3
Television Production ........................................... 3
Broadcast Writing & Announcing ............................ 3
or Broadcast Journalism ....................................... 3
Automated Radio .................................................. 3
Introduction to Telecommunication ......................... 3
Introduction to Digital Media ................................. 3
Introduction to Media Criticism (Television and Radio Criticism) (3)................................. 3
Radio Drama ................................................... 1
History of American Radio 1920-1950 .......................... 1
Radio Workshop .................................................. 2
Community Radio Production .................................. 1
Digital Audio Production ....................................... 3
Basic Film/Video Camera Techniques ....................... 3
Sports Broadcasting ............................................. 3
Advertising ..................................................... 3
Work Experience in Radio, Television and Film (1-4)
The Communication Experience ................................ 3
Group Discussion ............................................... 3
Freshman Seminar .............................................. 3
Race and Gender in the Media .................................. 3

A minimum of 6 units from the following: ..................... 6

TOTAL UNITS REQUIRED: ........................................ 30

Associate in Arts Degree
The Radio Production Associate in Arts (A.A.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF PROFICIENCY
Radio Production
CODE #1062

This program is designed to provide skills in radio production through
the preparation of programming for the campus radio station and
through podcasting. This option can lead to entry level jobs in radio
stations, audio production companies and Cable TV business or serve as
preparation for transfer to a four-year institution.

<table>
<thead>
<tr>
<th>REQUIRED PROGRAM</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTVF 312 Radio Studio Operations</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 315 Voice and Diction for Broadcasting</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 316 Introduction to Radio Workshop</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 319 Digital Audio Production</td>
<td>3</td>
</tr>
<tr>
<td>A minimum of 5 units from the following:</td>
<td>5</td>
</tr>
<tr>
<td>RTVF 310 History of American Radio 1920-1950 (1)</td>
<td></td>
</tr>
<tr>
<td>RTVF 370 Broadcast Writing &amp; Announcing (3)</td>
<td></td>
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<tr>
<td>JOUR 300 Newswriting and Reporting (3)</td>
<td></td>
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<tr>
<td>JOUR 330 Computer Familiarization (2)</td>
<td></td>
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<tr>
<td>RTVF 300 Mass Media and Society (3)</td>
<td></td>
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<tr>
<td>MUFHL 300 Introduction to Music (3)</td>
<td></td>
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<tr>
<td>MUFHL 308 Introduction to Music: Rock &amp; Roll (3)</td>
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<tr>
<td>TA 300 Introduction to the Theatre (3)</td>
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<tr>
<td>ENGWR 300 College Composition (3)</td>
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<tr>
<td>MUSM 334 Introduction to Musical Instrument Digital Interface (MIDI) (2)</td>
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<tr>
<td>RTVF 317 Radio Workshop (2)</td>
<td></td>
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<tr>
<td>RTVF 304 Introduction to Multimedia (3)</td>
<td></td>
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<tr>
<td>INDIS 313 Freshman Seminar (3)</td>
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<tr>
<td>TOTAL UNITS REQUIRED</td>
<td>17</td>
</tr>
</tbody>
</table>
REAL ESTATE
Business & Family Science

DEGREE
A.A.—Real Estate

CERTIFICATE OF ACHIEVEMENT
Real Estate Broker

CERTIFICATE OF PROFICIENCY
Real Estate Sales

See also:
Professional Applications of Geographic Information Systems (GIS)
   (Business/Marketing emphasis)
   (Geography Program)

Program Description
CRC offers, in addition to a Real Estate AA Degree, a variety of courses available which satisfy State of California prerequisites for Real Estate Salesperson and Real Estate Broker examinations.

Career Opportunities
Real Estate Agent
Real Estate Broker
Real Estate Appraiser
Some Career Opportunities 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

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

APPLICANTS FOR THE REAL ESTATE SALESPERSON EXAMINATION
To qualify to take the examination for a California Real Estate Salesperson license, an applicant must submit evidence (transcripts) of having completed three college level real estate courses.

The applicant is required to complete a college-level course in Real Estate Principles and Real Estate Practice. In addition to the Real Estate Principles and Practice courses, the applicant must also complete ONE additional elective real estate course (for the required total of three college level courses) from the following CRC course offerings:

• Real Estate Appraisal
• Property Management
• Real Estate Finance
• Real Estate Economics
• Legal Aspects of Real Estate
• Introduction to Escrow Procedure
• General Accounting 301
• Business Law 340

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:

• California Real Estate Principles
• Real Estate Practice
• Legal Aspects of Real Estate
• Real Estate Finance
• Real Estate Appraisal
• Real Estate Economics or Accounting 301
• and two courses from the following group: *
   • Business Law 340
   • 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:
ACCT 301 Financial Accounting.............................................. 4
BUS 310 Business Communications...................................... 3
BUS 330 Managing Diversity in the Workplace...................... 3
BUS 340 Business Law.......................................................... 3
BUS 300 Introduction to Business.......................................... 3
BUSTEC 302 Computer-Keyboarding.................................... 2
MKT 300 Principles of Marketing.......................................... 3
ECON 302 Principles of Macroeconomics (3)........................ 3
or BUS 320 Concepts in Personal Finance (3)
or ECON 320 Concepts in Personal Finance (3)
or ECON 100 Introduction to Economics (3)
CISC 310 Intro to Computer Information Science (3)......... 3-4
or Four (4) units to include:
CISC 302/JOUR 330 Computer Familiarization (2)
and Any two (2) additional units selected from:
CISA 305, 315, 320, 330, 340
CISC 320, 355

REAL ESTATE FOCUS:
RE 300 California Real Estate Principles............................. 3
RE 110 Legal Aspects of Real Estate.................................... 3
RE 120 Real Estate Practice................................................ 3
RE 130 Real Estate Finance................................................. 3
RE 140 Real Estate Appraisal.............................................. 3
RE 190 Real Property Management.................................... 3
TOTAL UNITS REQUIRED.................................................... 44-46

Suggested Electives:
MGMT 362 Techniques of Management
MKT 310 Selling Professionally
RE 141 Advanced Appraisal
RE 150 Real Estate Economics
RE 160 Introduction to Escrow Procedures
RE 161 Advanced Escrow Procedures

ASSOCIATE DEGREE
The Real Estate Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Real Estate Broker
CODE #1224

REQUIRED PROGRAM.......................................................... Units
RE 300 California Real Estate Principles............................ 3
RE 110 Legal Aspects of Real Estate.................................... 3
RE 120 Real Estate Practice................................................ 3
RE 130 Real Estate Finance................................................. 3
RE 140 Real Estate Appraisal.............................................. 3
RE 150 Real Estate Economics (3) or
ACCT 301 Financial Accounting (4)................................. 3-4
RE 190 Real Property Management.................................... 3
Plus three (3) units selected from the following:..................... 3
BUS 340; RE 141, 160, 161
TOTAL UNITS REQUIRED.................................................... 24-25

CERTIFICATE OF PROFICIENCY
Real Estate Sales
CODE #1225

REQUIRED PROGRAM.......................................................... Units
RE 300 California Real Estate Principles............................ 3
RE 120 Real Estate Practice................................................ 3
Plus three (3) units selected from:................................. 3
RE 110, 130, 140 or 190
TOTAL UNITS REQUIRED.................................................... 9

REAL ESTATE (RE)

RE 110
Legal Aspects of Real Estate 3 Units
Prerequisite: None
Hours: 54 hours LEC
This course is a study of California real estate laws. Topics include: the sources of law and the judicial system; agency; duties and responsibilities of licensees; contracts and their application to real estate; property ownership and management; real estate security devices; property rights, liens and homesteads; landlord-tenant law, land use controls, and title insurance and escrow. Completion of the course applies toward the California Department of Real Estate education requirements for the broker’s examination.

RE 120
Real Estate Practice 3 Units
Prerequisite: None
Hours: 54 hours LEC
This course covers practices and techniques of residential real estate brokerage and sales, including ethics, fair housing agency, goal setting, prospecting, listing, advertising, escrow procedures, financing, taxation, marketing, property management, leasing and business opportunities. Course applies toward California Department of Real Estate education requirements for the broker’s examination.

RE 130
Real Estate Finance 3 Units
Prerequisite: None
Hours: 54 hours LEC
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.

RE 140
Real Estate Appraisal 3 Units
Prerequisite: None
Hours: 54 hours LEC
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite</th>
<th>Course Transferable to CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 141</td>
<td>Advanced Appraisal</td>
<td>3 U</td>
<td>Prerequisite: RE 140 with a grade of “C” or better</td>
<td>Course Transferable to CSU</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>RE 150</td>
<td>Real Estate Economics</td>
<td>3 U</td>
<td>Prerequisite: None</td>
<td>Course Transferable to CSU</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>RE 160</td>
<td>Introduction to Escrow Procedures</td>
<td>3 U</td>
<td>Prerequisite: None</td>
<td>Course Transferable to CSU</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>RE 161</td>
<td>Advanced Escrow Procedures</td>
<td>3 U</td>
<td>Prerequisite: RE 160 with a grade of “C” or better</td>
<td>Course Transferable to CSU</td>
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<td>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.</td>
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<tr>
<td>RE 190</td>
<td>Real Property Management</td>
<td>3 U</td>
<td>Prerequisite: None</td>
<td>Course Transferable to CSU</td>
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<tr>
<td></td>
<td>This course covers the day-to-day operation and management of real property including: marketing procedures, leases, maintenance, accounting and economics, recordkeeping, management forms, legal requirement, laws, human relations, employer responsibilities and management.</td>
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<tr>
<td>RE 295</td>
<td>Independent Studies in Real Estate</td>
<td>1-3 U</td>
<td>Prerequisite: None</td>
<td>Course Transferable to CSU</td>
</tr>
<tr>
<td></td>
<td>An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.</td>
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<tr>
<td>RE 299</td>
<td>Experimental Offering in Real Estate</td>
<td>.5-4 U</td>
<td>Prerequisite: None</td>
<td>Course Transferable to CSU</td>
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<td></td>
<td>Hours: 18 hours LEC; 54 hours LAB</td>
<td>Course Transferable to CSU</td>
<td>Course Transferable to CSU</td>
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<tr>
<td>RE 300</td>
<td>California Real Estate Principles</td>
<td>3 U</td>
<td>Prerequisite: None</td>
<td>Course Transferable to CSU</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>RE 495</td>
<td>Independent Studies in Real Estate</td>
<td>1-3 U</td>
<td>Prerequisite: None</td>
<td>Course Transferable to CSU</td>
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<td>An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.</td>
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<tr>
<td>RE 498</td>
<td>Work Experience in Real Estate</td>
<td>1-4 U</td>
<td>Prerequisite: None</td>
<td>Course Transferable to CSU</td>
</tr>
<tr>
<td></td>
<td>General Education: AA/AS Area III(b)</td>
<td>Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Real Estate.</td>
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<td></td>
<td>Course Transferable to CSU</td>
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<tr>
<td></td>
<td>Hours: 300 hours LAB</td>
<td>Course Transferable to CSU</td>
<td>Course Transferable to CSU</td>
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<tr>
<td></td>
<td>This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.</td>
<td></td>
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</tr>
<tr>
<td>RE 499</td>
<td>Experimental Offering in Real Estate</td>
<td>.5-4 U</td>
<td>Prerequisite: None</td>
<td>Course Transferable to CSU</td>
</tr>
<tr>
<td></td>
<td>Hours: 18 hours LEC; 54 hours LAB</td>
<td>Course Transferable to CSU</td>
<td>Course Transferable to CSU</td>
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</tbody>
</table>
DEGREE
A.S.—Science, General

See also:
Professional Applications of Geographic Information Systems (GIS) (Geography - page 200)

Areas of Study:
Biology Program
Chemistry Program
Engineering Program
Geography Program
Geology Program
Physics, Physical Science, Astronomy Program

Program Description
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.

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate's degree in this major may be different from the requirements needed for the bachelor's degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.S.—Science, General
CODE #1229

This degree is designed to meet common lower division requirements for a general science major.

REQUIRED PROGRAM.................................................... Units
Eighteen (18) units of transfer level course work in science. Two laboratory courses must be included: one in the physical sciences and one in the biological sciences. Courses may be selected from astronomy, biology, chemistry, geology, physical geography, physical anthropology, physics, and physical science.

TOTAL UNITS REQUIRED ........................................ 18

Associate Degree
The Science, General Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
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 participate 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 speciality, i.e., dental, medical, optometry, and/or veterinary.

The basic core courses are:
- BIOL 400, 420
- CHEM 400, 401
- ENGWR 300, 301, 302
- PHYS 350, 360 or 370, 380
- MATH 335, 350 (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 PSYC 300 and 320 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 MATH 350 and 351 and a full year of organic chemistry (CHEM 420 and 421) 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 BIOL 440, 430, 431; MATH 350, 351; PSYC 300; STAT 300; humanities courses and social science classes may be required. Please check with your counselor. These courses can be completed at Cosumnes River College.

**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 STAT 300 may be completed at Cosumnes River College.

**Pre-physical therapy**

Students may take general education and a basic core of prerequisite courses at Cosumnes River College and transfer to Pre-physical Therapy programs in the California State University system. 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. Physical Therapy programs will be offered at the graduate level only. Check with the counseling department.

The core courses may include:
- BIOL 400, 420, 430, 431
- CHEM 305, 306 or 400, 401
- PHYS 350, 360 or 370, 380
- PSYC 300

**Pre-Nursing Option**, see Biology Program
Program Description
CRC offers 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. Moreover, students learn about deaf culture such as cultural behaviors and values.

Career Opportunities
ADA Specialist
Audiologist
Educational Interpreter
Human Services Worker
Linguist
Mental Counselor
Religion
Speech Therapy
Teacher Aide
Video Remote Interpreting
Foundations in all areas of American Sign Language as Childcare Worker firsthand

Some Career Opportunities may require more than two years of college study.

Highlights
• Dedicated, well-trained instructors
• Practical tools provided for communication opportunities
• Highly interactive learning environment
• Develop relationship with deaf community
• A "hands-on" program providing a firm interaction and experience of deaf culture

NOTE:
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

SIGN LANGUAGE STUDIES (SILA)

SILA 305
American Sign Language 1 4 Units
Prerequisite: None
General Education: AA/AS Area I; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This is the beginning course in a series of four courses in visual-gestural processing of sign language. It provides instructional activities for people who wish to become competent in communication with deaf people. This emphasis is on non-verbal communication.

SILA 306
American Sign Language 2 4 Units
Prerequisite: SILA 305 with a grade of “C” or better
General Education: AA/AS Area I; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This is the second in a series of four courses in American Sign Language. The emphasis is on non-verbal communication. Topics presented include grammatical features such as descriptors, differentiation between cardinal/ordinal numbers, contrastive structure, temporal aspect markers and temporal sequencing.

SILA 315
American Sign Language 3 4 Units
Prerequisite: SILA 306 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C2; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course is the third in a series of four courses in American Sign Language. It emphasizes expressive and receptive non-verbal communication skills between signers who have preliminary American Sign Language syntactical and lexical skills. It provides an understanding of deaf cultural processes by identifying behaviors and several norms from activities assigned in the class. It also includes dialogue that involve asking, empathizing, negotiation and agreeing or disagreeing.

SILA 316
American Sign Language 4 4 Units
Prerequisite: SILA 315 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6
Course Transferable to UC/CSU
Hours: 72 hours LEC
This course is the fourth in a series of four courses in American Sign Language. The emphasis is on non-verbal communication, at advanced levels of competency. Topics presented include advanced grammatical features such as descriptors, classifier use, various numbering systems in American Sign Language, cultural features of the language and the diverse aspects of the American Deaf Community.
SILA 330
Introduction to Deaf Culture 3 Units
Prerequisite: None
General Education: CSU Area D7; IGETC Area 4G
Course Transferable to UC/CSU
Hours: 54 hours LEC
This class is a survey of processes from the perspective of four institutions that have critical impact on the psycho-social development of Deaf individuals: family, education, work, and society. Students will learn and become sensitive to the unique challenges of deafness. Students will be exposed to how these challenges influence personal, social and communication competencies of deaf people. Written reports and student-initiated field trips will be required for this course.

SILA 332
Educating Deaf People 3 Units
Prerequisite: None
General Education: AA/AS Area V(b)
Course Transferable to CSU
Hours: 54 hours LEC
This is a course of topics related to educating deaf children, adults, and multi-handicapped individuals. It also covers teaching methods and philosophies, school placements issues, child development, and methods of addressing developmental and linguistic stages.

SILA 338
American Sign Language for Use with Infants and Young Children 3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC
This course focuses on American Sign Language for Use with Infants and Young Children vocabulary, alphabet, handshape, movement, palm orientation, structure, and grammar. Students will learn core vocabulary, comprehension, and grammar in ASL to understand its structure. Students will also be introduced to the history of the Deaf community and its culture, as well as be exposed to community resources for the Deaf and Hard of Hearing populations.

SILA 345
Fingerspelling 1 Unit
Prerequisite: SILA 305 with a grade of “C” or better
Course Transferable to CSU
Hours: 18 hours LEC; 9 hours LAB
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.

SILA 499
Experimental Offering in Sign Language Studies .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
DEGREE
A.A. — Social Science

Program Description
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.

The program includes 21 units of coursework in the following areas: anthropology, economics, geography, history, philosophy, political science, psychology, social science, or sociology.

This degree enables the student to experience a wide range of diverse social science disciplines. To verify the transferability of specific courses and their university application, please consult your CRC counselor. 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 Opportunities
Instructor  Social Worker
Researcher  Criminal Justice
Social Services  Business & Corporate employment

Some Career Opportunities may require more than two years of college study.

Highlights
• Opportunities to build a foundation for interdisciplinary studies
• Overview of theoretical, methodological, analytical, and cultural principles

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.A. — Social Science
CODE #1236

This degree is designed to meet common lower division requirements for a major in one of the social sciences. Students should check the transfer requirements for the college and specific major to which they wish to apply.

REQUIRED PROGRAM............................................ Units
Twenty-one (21) units must be completed in at least three different subject areas listed below:

Program subject areas:
Anthropology, Economics, Geography 310, History, Political Science, Philosophy 360, Psychology, Social Science, and Sociology.

This degree enables the student to experience a wide range of diverse social science disciplines. To verify the transferability of specific courses and their university application, please consult your CRC counselor.

TOTAL UNITS REQUIRED ........................................ 21

Associate Degree
The Social Science Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
SOCIAL SCIENCE (SOCSC)

SOCSC 300
Introduction to Ethnic Studies 3 Units
Prerequisite: None
Advisory: ENGWR 101
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D3; IGETC Area 4C
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course uses comparative methods to introduce the diverse institutional, cultural, and historical issues relating to the past and present life circumstances of Asian Americans, Mexican/Hispanic/Chicano/Latino Americans, Black Americans, Native Americans, and other recent immigrant groups in the U.S. This course is designed to introduce students to a broad field of ethnic studies content, such as multiculturalism, racism, ethnocentrism, cultural relativism, etc.

SOCSC 320
Socio-Cultural, Economic and Political Experience of the African-American 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D2; IGETC Area 4
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course will expose students of all ethnic backgrounds to the issues germane to the experience of African Americans in the United States. More specifically, this is an interdisciplinary course in which students of all ethnic backgrounds will examine the gender, political, economical, cultural and social development experience of African Americans in the United States.

SOCSC 325
Asian Experience in America 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D3; IGETC Area 4C
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 socio-economic, 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.

SOCSC 330
Mexican-Americans in the United States 3 Units
Prerequisite: None
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D3; IGETC Area 4C
Course Transferable to UC/CSU
Hours: 54 hours LEC
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.

SOCSC 360
Law and Society 3 Units
Same As: BUS 345
Prerequisite: None
General Education: AA/AS Area V(b); CSU Area D8; IGETC Area 4G
Course Transferable to UC/CSU
Hours: 54 hours LEC
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 view point 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 for any major for which BUS 340 is required, as it is not comparable. This course is the same as BUS 345, and only one may be taken for credit.

SOCSC 480
Honors Seminars in Social Science 1 Unit
Same As: HONOR 370
Prerequisite: None
General Education: AA/AS Area V(b); CSU Area D7
Course Transferable to CSU
Hours: 18 hours LEC
Honors Seminars in Social Science are special one-unit intensive courses for academically accomplished students or those with the potential for high academic achievement. In these seminars, students will study topics in the movements, trends and philosophies found in the Social Sciences. Enrollment is limited to Honors Program students. Details about the Honors Program can be found in the front of the Catalog and on the CRC website. This course is the same as HONOR 370. This course, under either name, may be taken a total of one time for credit.

SOCSC 495
Independent Studies in Social Science 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

SOCSC 499
Experimental Offering in Social Science .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.A.-T — Sociology for Transfer

Program Description
CRC offers courses and a degree in the study of human behavior in society. The discipline is concerned with the study of systems and how individuals work and interact within them.

Career Opportunities
Sociologists with advanced degrees and professional certificates have a broad range of employment opportunities including, but not limited to teacher, social worker, probation officer, employment counselor, urban planner and data analyst.

Highlights
• Practical courses valuable to all students
• Well-trained and interesting instructional staff.
• Preparation for University transfer

NOTE:
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.A.-T — Sociology for Transfer

CODE # 1965

The Cosumnes River College Associate in Arts in Sociology for Transfer Degree is designed to facilitate successful transfer to baccalaureate sociology degree programs. This degree provides students with the lower division breadth and depth of the field of sociology. Additionally, this degree exposes students to the core principles and practices in the field. Students will learn to: identify and comprehend their individual relationship to structures in the larger society; apply effective critical thinking skills to interpret sociological phenomena; assess the significance of important social movements in American society; define and identify various theoretical perspectives across the discipline of sociology; and analyze, interpret, and critically think about sociological ascriptions to race, gender, ethnicity, class, sexual orientation, political affiliation, and other sociological concepts.

Note to Transfer Students:
The Sociology for Transfer A.A.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

REQUIRED PROGRAM ............................................................. 60

SOC 300* Introductory Sociology .............................................. 3
SOC 301* Social Problems......................................................... 3

One of the following two courses: ........................................... 3-4
PSYC 330* Introductory Statistics for the Behavioral Sciences (3)
STAT 300* Introduction to Probability & Statistics (4)

A minimum of 6 units from the following: ................................ 6
SOC 305* Critical Thinking in the Social Sciences (3)
SOC 310* Marriage and the Family (3 units)
SOC 321* Race Ethnicity and Inequality in the U.S. (3)
SOC 341* Sex and Gender in the U.S. (3)

A minimum of 3 units from the following: ................................. 3
ANTH 310* Cultural Anthropology (3)
ANTH 316* Global Forces in Culture Change (3)
PSYC 300* General Principles of Psychology (3)
PSYC 320* Social Psychology (3)

TOTAL UNITS REQUIRED .................................................. 18-19

DEGREE TOTAL (INCLUDING GE) ............................................. 60

* Major courses which also fulfill a transfer General Education (GE) requirement (“double-counting”). Please note that there are limitations on double-counting — consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

Associate in Arts in Sociology for Transfer Degree
The Associate in Arts in Sociology for Transfer (A.A.-T) degree may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.
## SOCIOLOGY (SOC)

### SOC 300
**Introductory Sociology**

Prerequisite: None  
General Education: AA/AS Area V(b); CSU Area D0; IGETC Area 4J  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is a study of human behavior in society, including social groups, culture, personality, social stratification, social change, collective behavior and social institutions.

### SOC 301
**Social Problems**

Prerequisite: None  
General Education: AA/AS Area V(b); CSU Area D0; IGETC Area 4J  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
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.

### SOC 305
**Critical Thinking in the Social Sciences**

Prerequisite: None  
Advisory: ENGRWR 300 or the equivalent  
General Education: AA/AS Area V(b); AA/AS Area II(b); CSU Area A3; CSU Area D7  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course examines the definitional and contextual nature of social issues. It develops a “critical thinking” approach which integrates interdisciplinary principles and incorporates a comparative framework utilizing literary criticism, logic, argumentation, and persuasion to analyze and compare the content and validity of social problems. This course specifically explores how the media and scientific community collect, interpret, and report social data. Combining critical thinking techniques with the sociological perspective will help students to question the “taken-for-granted” assumptions that surround social phenomena and influence human behavior.

### SOC 310
**Marriage and the Family**

Prerequisite: None  
General Education: AA/AS Area III(b); CSU Area D; CSU Area E; IGETC Area 4  
Course Transferable to CSU  
Hours: 54 hours LEC  
This course will examine the social, psychological, cross-cultural, political, historical and economic factors relating to the changing family, marriage, remarriage and significant relationships. The intersection of race, ethnicity, class, age, gender, and sexuality will be explored. (C-ID SOCI 130)

### SOC 321
**Race, Ethnicity and Inequality in the United States**

Prerequisite: None  
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D3; IGETC Area 4J  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is a social profile of major American minority groups. It examines the problems of minority assimilation into an “open” society and culture.

### SOC 341
**Sex and Gender in the U.S.**

Prerequisite: None  
General Education: AA/AS Area V(b); CSU Area D4; IGETC Area 4D  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course provides a study of the changing roles of women and men in the US. Theories of women’s and men’s gender role socialization, gender related inequalities, health and body issues, and a current examination of the women’s and men’s movements will be explored.

### SOC 495
**Independent Studies in Sociology**

Prerequisite: None  
Course Transferable to CSU  
See UC Limitations & Counselor  
Hours: 18 hours LEC; 54 hours LAB  
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

### SOC 499
**Experimental Offering in Sociology**

Prerequisite: None  
Course Transferable to CSU  
See UC Limitations & Counselor  
Hours: 18 hours LEC; 54 hours LAB

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DEGREE:
A.A.—Spanish

Program Description
CRC offers the basic grammar and conversation courses in Spanish. Students will be able to understand the spoken language, to speak with reasonable fluency, and to write at their speaking level.

Career Opportunities
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  Law Enforcement/Correctional Officer
Social Security Officer  Social Service
Translating & Interpreting  Tourism
Overseas Employment:
Business & Commerce
Some Career Opportunities may require more than two years of college study.

Highlights
• Courses in Spanish
• Multimedia, interactive language lab with Internet capabilities

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.A. – Spanish
CODE #1537

This degree is designed to meet common lower division requirements for a major in Spanish in a four-year university. This will include the fundamentals of language learning, listening, speaking, reading, writing and culture.

REQUIRED PROGRAM

Core courses:
SPAN 401  Elementary Spanish (4)
SPAN 402  Elementary Spanish (4)
SPAN 411  Intermediate Spanish (4)
SPAN 412  Intermediate Spanish (4)
 or  SPAN 413  Spanish for Native Speakers I (4)
 and  SPAN 415  Spanish for Native Speakers II (4)..................8-16

Restricted Electives:
A minimum of ten (10) units from the following:.......................... 10
SPAN 311  Conversational Spanish/Intermediate (2)
SPAN 312  Conversational Spanish/Intermediate (2)
SPAN 425  Advanced Reading and Conversation (3)
SPAN 426  Introduction to Mexican American Literature (3)
SPAN 427  Introduction to Spanish American Literature (3)
SOC 330  Mexican Americans in the U.S. (3)
SPAN 434  Spanish for the Professions - Intermediate (3)

TOTAL UNITS REQUIRED.................................................18-26

Associate Degree
The Spanish Associate in Arts (A.A.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.
SPANISH (SPAN)

SPAN 101
Conversational Spanish, Elementary  
3 Units
Prerequisite: None
General Education: AA/AS Area I
Hours: 36 hours LEC; 54 hours LAB
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.

SPAN 102
Conversational Spanish, Elementary  
3 Units
Prerequisite: SPAN 101 with a grade of "C" or better
General Education: AA/AS Area I
Hours: 36 hours LEC; 54 hours LAB
This is second semester Elementary Spanish. It is designed for students who have completed SPAN 101 or two years of high school Spanish. It provides refinement of skills begun in SPAN 101. 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 SPAN 101 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.

SPAN 311
Conversational Spanish, Intermediate  
2 Units
Prerequisite: SPAN 102 with a grade of "C" or better
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
This is first semester Intermediate Spanish. It is designed for students who have completed SPAN 102 or three years of high school Spanish. This course provides refinement of skills attained in SPAN 102. 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 unprepared 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 SPAN 102. 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.

SPAN 312
Conversational Spanish, Intermediate  
2 Units
Prerequisite: SPAN 311 or 411 with a grade of "C" or better
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
This is second semester Intermediate Spanish. It is designed for students who have completed SPAN 311 or four years of high school Spanish. It provides continued development of skills attained in SPAN 311. 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.

SPAN 299
Experimental Offering in Spanish  
.5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

SPAN 401
Elementary Spanish  
4 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C2; IGETC Area 6
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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.
SPAN 402
Elementary Spanish  
4 Units  
Prerequisite: SPAN 401 with a grade of “C” or better  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 6  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 54 hours LEC; 54 hours LAB  
This is second semester Elementary Spanish. It is designed for students who have completed SPAN 401 or two years of high school Spanish. It provides refinement of skills begun in SPAN 401. 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 SPAN 401 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. (C-ID SPAN 110)

SPAN 411
Intermediate Spanish  
4 Units  
Prerequisite: SPAN 402 with a grade of “C” or better  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6  
Course Transferable to UC/CSU  
Hours: 54 hours LEC; 54 hours LAB  
This is first semester Intermediate Spanish. It is designed for students who have completed SPAN 402 or three years of high school Spanish. It provides refinement of skills attained in SPAN 402. 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 and culturally appropriate language at a higher level of accuracy than found in SPAN 402. The student 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. (C-ID SPAN 200)

SPAN 412
Intermediate Spanish  
4 Units  
Prerequisite: SPAN 411 with a grade of “C” or better  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6  
Course Transferable to UC/CSU  
Hours: 54 hours LEC; 54 hours LAB  
This is second semester Intermediate Spanish. It is designed for students who have completed SPAN 411 or four years of high school Spanish. It provides continued development of skills attained in SPAN 411. 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.

SPAN 413
Spanish for Native Speakers I  
4 Units  
Prerequisite: None  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6  
Course Transferable to UC/CSU  
See UC Limitations & Counselor  
Hours: 72 hours LEC  
This course offers the fundamentals of spoken and written Spanish for the native speaker of Spanish. It covers the structure of the language, oral communication, fundamentals of grammar and composition. Focus is placed primarily in the indicative tenses. The course also covers diacritical marks, like the accent mark, and their uses. In addition, the course introduces the student to the geography and culture of the Spanish speaking world. This course is conducted in Spanish.

SPAN 415
Spanish for Native Speakers II  
4 Units  
Prerequisite: SPAN 413 with a grade of “C” or better  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B  
Course Transferable to UC/CSU  
Hours: 72 hours LEC  
This course is a continuation of Spanish 413. It offers the fundamentals of spoken and written Spanish for the native speaker of Spanish. It covers the structure of the language, oral communication, fundamentals of grammar and composition. Focus is placed primarily on the conditional and subjunctive forms, the future tense, and the compound tenses. The course also covers diacritical marks, like the accent mark, and their uses. In addition, the course introduces the student to the geography and culture of the Spanish speaking world. This course is conducted in Spanish.

SPAN 425
Advanced Reading and Conversation  
3 Units  
Prerequisite: SPAN 412 or 415 with a grade of “C” or better  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This class focuses on building advanced reading and conversational skills in Spanish. The emphasis is on developing critical thinking skills and academic writing proficiency through a functional grammar approach. Readings and activities provide the appropriate vocabulary, linguistic structures, and writing strategies to allow for building on vocabulary, grammar review, and meaningful dialogue.

SPAN 426
Introduction to Mexican American Literature  
3 Units  
Prerequisite: SPAN 412 or 415 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B  
Course Transferable to UC/CSU  
Hours: 54 hours LEC  
This course is an introductory survey to the four genres of Mexican-American literature: Poetry, Narrative, Theatre, and the Essay, and the culture which produced it. Emphasis will be given to 20th century writers and works. This course is conducted in English and Spanish.
SPAN 427
Introduction to Spanish American Literature 3 Units
Prerequisite: SPAN 412 or 415 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course is an introductory survey to the four genres of Spanish-American literature: Poetry, Narrative, Theatre, and the Essay, and the culture which produced it. Post-independence writers and their works will be emphasized. This course is conducted in Spanish.

SPAN 434
Spanish for the Professions - Intermediate 3 Units
Prerequisite: SPAN 102 or 402 with a grade of “C” or better
Course Transferable to CSU
Hours: 54 hours LEC
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.

SPAN 495
Independent Studies in Spanish 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC, 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

SPAN 499
Experimental Offering in Spanish .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
Program Description
Leadership is a rewarding challenge that can greatly enhance college life and help students be prepared when needs or opportunities arise. The Student Development’s leadership courses are designed to help students develop their skills, knowledge, and abilities in order to successfully perform in current and future leadership roles. Under the auspices of the student association, those enrolled in this program have a variety of opportunities to serve on the Student Senate, Clubs and Events Board, and/or college committees of participatory governance. Enrollment in the program does not require the student to hold an elected position in the student association.

Highlights
• Professional, enthusiastic staff whose work ethos is student-centered
• Access to knowledgeable staff resources about campus facilities and opportunities for student and staff engagement
• Participation on college committees to help develop and determine policy as it relates to student issues
• Opportunities for practical experience in leadership at the local, district and state levels

NOTE:
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

STUDENT GOVERNMENT (SGVT)

SGVT 300
Introduction to Student Government 2 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
This course provides a study of the legal, educational and philosophical basis of student government. The course may include travel to other campuses, local, regional and state conferences and provide the opportunity to participate on faculty and administrative committees. Topics are designed to teach leadership skills and to give practical experience in the social and civic responsibilities of student government.

SGVT 315
Dynamics of Leadership 3 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Course Transferable to CSU
Hours: 54 hours LEC
This course is designed to introduce students to the fundamental elements of leadership as it pertains to student governmental processes, team and community building. Students will examine contemporary leadership models as well as their own values and beliefs to develop a personal philosophy of leadership. Through activities and projects facilitated by student government, students will learn how to apply theory and experience leadership in the college and community settings. Students interested in broadening their understanding of diverse topics related to self-knowledge, group dynamics and leadership are encouraged to enroll.

SGVT 495
Independent Studies in Student Government 1-3 Units
Prerequisite: None
Course Transferable to CSU
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

SGVT 499
Experimental Offering in Student Government .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.A. – Television Production

CERTIFICATE OF PROFICIENCY
Television Production

Program Description
This program is designed to provide skills in television and film production through the preparation of projects for campus, Cable TV and Internet viewing. This option can lead to entry-level jobs in television, film, Cable TV, business and industry or for preparation for transfer to a four-year institution.

Career Opportunities
- Camera Operator
- Computer Graphic Artist
- Non-Linear Video Editors
- Technical Director
- Broadcast Technician
- Production Assistant
- Personal or Corporate Video
- Audio Engineer
- DVD, TV, Film Producer/Directory

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

Highlights
- Practical experience working in the campus television studio or at Access Sacramento
- Student film, music video and commercial opportunities
- Internship opportunities working in local television stations, post-production facilities, and with independent film-makers
- Complete digital TV studio with four cameras, switcher, character generator and teleprompter
- State of the art digital computer lab for graphics and non-linear editing, including Apple Final Cut Pro, Adobe Photoshop, Adobe Illustrator and Adobe After Effects.
- Some courses qualify students to become Apple Certified End Users by taking qualifying software exams in the department’s Apple Authorized Training Center®.

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor’s degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www crc losrios edu / pslo
## CERTIFICATE OF PROFICIENCY

**Television Production**

Code #1063

### REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTVF 330</td>
<td>Basic Film/Video Camera Techniques</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 331</td>
<td>Television Production</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 340</td>
<td>Television Production Workshop I</td>
<td>2</td>
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<tr>
<td>RTVF 360</td>
<td>Introduction to Motion Graphics: Adobe After Effects</td>
<td>3</td>
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</tbody>
</table>

A minimum of 6 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>RTVF 341</td>
<td>Television Production Workshop II</td>
<td>2</td>
</tr>
<tr>
<td>RTVF 361</td>
<td>Intermediate Motion Graphics: Adobe After Effects</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 362</td>
<td>Digital Non-Linear Video Editing: Final Cut Pro</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 363</td>
<td>Introduction to DVD Production: iDVD &amp; DVD Studio Pro</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 372</td>
<td>Sports Broadcasting</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 376</td>
<td>Advertising</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 378</td>
<td>Acting for the Camera</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 498</td>
<td>Work Experience in Radio, Television and Film</td>
<td>1-4</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED** 17
DEGREE
A.A.-T – Theatre Arts for Transfer
A.A.--Theatre Arts

CERTIFICATE OF PROFICIENCY
Theater for Young Audiences

Program Description
The two-year programs in Theatre Arts are designed to provide students with a broad spectrum of activities in all phases of play production.

Career Opportunities
Acting
Design for the Theatre
Teaching
Box Office Management

Some career choices may require courses beyond the Associate Degree.

Highlights
• Distinguished faculty with nationally renowned professional experience in directing, playwriting and design, as well as considerable teaching experience on both the graduate and undergraduate levels in the UC system
• Visual and Performing Arts Complex which includes a 320-seat Recital Hall and a 150-seat flexible space
• Opportunity for students to 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

NOTE TO TRANSFER STUDENTS:
If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an associate’s degree in this major may be different from the requirements needed for the bachelor’s degree.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.A.-T – Theatre Arts for Transfer
Code # 1977

Note to Transfer Students:
The Theatre Arts for Transfer A.A.-T degree is designed for students who plan to transfer to a campus of the California State University (CSU). Other than the required core, the courses you choose to complete this degree will depend to some extent on the selected CSU for transfer. For students wishing to transfer to other universities (UC System, private, or out-of-state), the Associate Degree for Transfer may not provide adequate preparation for upper-division transfer admissions; it is critical that you meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

REQUIRED PROGRAM ......................................................... UNITS
TA 300 Introduction to the Theatre (3) ........................................ 3
or TA 302 History and Theory of the Theatre I (3) 3
TA 350 Theory and Techniques of Acting I ................................. 3
A minimum of 3 units from the following: ................................ 3
TAP 300 Modern Rehearsal and Performance I (1 - 3)
or TAP 320 Classical Rehearsal and Performance I (1 - 3)
or TAP 340 Musical Rehearsal and Performance I (1 - 3)
or TAP 360 Children's Theatre Performance I (1 - 3)
TAP 310 Modern Technical Production I (1 - 3)
or TAP 330 Classical Technical Production I (1 - 3)
or TAP 350 Musical Technical Production I (1 - 3)
or TAP 370 Children's Theatre Technical Production I (1 - 3)
A minimum of 9 units from the following: ................................ 9
TA 305 Script Analysis (3)
TA 351 Theory and Techniques of Acting II (3)
TA 420 Stagecraft (3)
TA 422 Stage Lighting (3)
TA 430 Costume Construction (3)
TAP 300 Modern Rehearsal and Performance I (1 - 3)
or TAP 320 Classical Rehearsal and Performance I (1 - 3)
or TAP 340 Musical Rehearsal and Performance I (1 - 3)
TAP 310 Modern Technical Production I (1 - 3)
or TAP 330 Classical Technical Production I (1 - 3)
or TAP 350 Musical Technical Production I (1 - 3)
TOTAL UNITS REQUIRED .................................................. 18

DEGREE TOTAL (INCLUDING GE) ........................................ 60

* Major courses which also fulfill a transfer General Education (GE) requirement (“double-counting”). Please note that there are limitations on double-counting — consult a Counselor when planning your courses to maximize the number of courses that fulfill both the requirements for the major and GE.

1 If students utilized three units of Rehearsal and Performance courses in the core of the degree they may use three units of Technical Production courses here. If they used Technical Production courses in the core they may use three units of Rehearsal and Performance courses here.

Associate in Arts in Theatre Arts for Transfer Degree
may be obtained by completion of 60 transferable semester units with a minimum 2.0 GPA, including: (a) 18 units in the major (earning a C or better in these courses); and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.
### DEGREE
A.A. — Theatre Arts

**CODE #1239**

#### REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 300</td>
<td>Introduction to the Theatre</td>
<td>3</td>
</tr>
<tr>
<td>or TA 302</td>
<td>History and Theory of the Theatre I (3)</td>
<td>3</td>
</tr>
<tr>
<td>or TA 350</td>
<td>Theory and Techniques of Acting I (3)</td>
<td>3</td>
</tr>
<tr>
<td>TA 420</td>
<td>Stagecraft</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAP 300</td>
<td>Modern Rehearsal and Performance I (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 301</td>
<td>Modern Rehearsal and Performance II (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 302</td>
<td>Modern Rehearsal and Performance III (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 303</td>
<td>Modern Rehearsal and Performance IV (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 320</td>
<td>Classical Rehearsal and Performance I (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 321</td>
<td>Classical Rehearsal and Performance II (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 322</td>
<td>Classical Rehearsal and Performance III (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 323</td>
<td>Classical Rehearsal and Performance IV (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 340</td>
<td>Musical Rehearsal and Performance I (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 341</td>
<td>Musical Rehearsal and Performance II (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 342</td>
<td>Musical Rehearsal and Performance III (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 343</td>
<td>Musical Rehearsal and Performance IV (1 - 3)</td>
<td>3</td>
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A minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>TAP 310</td>
<td>Modern Technical Production I (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 311</td>
<td>Modern Technical Production II (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 312</td>
<td>Modern Technical Production III (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 313</td>
<td>Modern Technical Production IV (1 - 3)</td>
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<tr>
<td>or TAP 330</td>
<td>Classical Technical Production I (1 - 3)</td>
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<tr>
<td>or TAP 331</td>
<td>Classical Technical Production II (1 - 3)</td>
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<td>or TAP 332</td>
<td>Classical Technical Production III (1 - 3)</td>
<td>3</td>
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<tr>
<td>or TAP 333</td>
<td>Classical Technical Production IV (1 - 3)</td>
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<tr>
<td>or TAP 350</td>
<td>Musical Technical Production I (1 - 3)</td>
<td>3</td>
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<tr>
<td>or TAP 351</td>
<td>Musical Technical Production II (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 352</td>
<td>Musical Technical Production III (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TAP 353</td>
<td>Musical Technical Production IV (1 - 3)</td>
<td>3</td>
</tr>
</tbody>
</table>

**A minimum of 3 units from the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 351</td>
<td>Theory and Techniques of Acting II</td>
<td>3</td>
</tr>
<tr>
<td>or TA 356</td>
<td>Acting for the Camera I (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

For Acting/Performance track students add nine units selected from the following Units:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 350</td>
<td>Musical Rehearsal and Performance I (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TA 352</td>
<td>Musical Rehearsal and Performance II (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TA 354</td>
<td>Musical Rehearsal and Performance III (1 - 3)</td>
<td>3</td>
</tr>
<tr>
<td>or TA 356</td>
<td>Musical Rehearsal and Performance IV (1 - 3)</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED**

15

#### For Technical Theatre track students add nine units selected from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 422</td>
<td>Stage Lighting (3)</td>
<td>3</td>
</tr>
<tr>
<td>TA 424</td>
<td>Advanced Technical Theatre (3)</td>
<td>3</td>
</tr>
<tr>
<td>TA 323</td>
<td>From Stage to Screen, Production Design and Art Direction (3)</td>
<td>3</td>
</tr>
<tr>
<td>TA 430</td>
<td>Costume Construction (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED**

24

### CERTIFICATE OF PROFICIENCY

**Theater for Young Audiences**

**CODE #1989**

#### REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 401</td>
<td>Children’s Literature and Creative Drama</td>
<td>3</td>
</tr>
<tr>
<td>TA 404</td>
<td>Techniques of Puppetry</td>
<td>2</td>
</tr>
<tr>
<td>TA 344</td>
<td>Improvisation and Theatre Games</td>
<td>2</td>
</tr>
<tr>
<td>TA 395</td>
<td>Playwriting</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>TA 460</td>
<td>Rehearsal and Performance (0.5 - 3)</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED**

14

1 Must be a children’s theatre production.

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### THEATRE ARTS (TA)

#### TA 300

**Introduction to the Theatre**

**Units:** 3

**Prerequisite:** None

**General Education:** AA/AS Area I; CSU Area C1; IGETC Area 3A

**Course Transferable to UC/CSU**

**Hours:** 54 hours LEC

This course focuses on the relationship of theatre to various cultures throughout history, and on the contributions of significant individual artists. This course introduces students to elements of the production process including playwriting, acting, directing, design, and criticism. Students will also survey different periods, styles and genres of theatre through play reading, discussion, films and viewing and critiquing live theatre, including required attendance of theatre productions. It is an audience-oriented, non-performance theatre arts course open to all students.

#### TA 302

**History and Theory of the Theatre I**

**Units:** 3

**Prerequisite:** None

**Advisory:** ENGWR 101; or equivalent skills demonstrated through the assessment process.

**General Education:** AA/AS Area I; CSU Area C1; IGETC Area 3A

**Course Transferable to UC/CSU**

**Hours:** 54 hours LEC

This course is a survey of the history of theatre from the Greeks through the 17th Century. The history and development of theatre and drama are studied in relationship to cultural, political and social conditions of the time. Plays are read for analysis of structure, plot, character and historical relevance. This course is recommended for students planning to major in Theatre, Humanities, English or Communication. (C-ID THTR 113)

#### TA 303

**History and Theory of the Theatre II**

**Units:** 3

**Prerequisite:** None

**Advisory:** ENGWR 101; or equivalent skills demonstrated through the assessment process.

**General Education:** AA/AS Area I; CSU Area C1; IGETC Area 3A

**Course Transferable to UC/CSU**

**Hours:** 54 hours LEC

This course is a survey of the history of theatre from the 17th Century through modern times. This history and development of theater and drama are studied in relationship to cultural, political and social conditions of the time. Plays are read or viewed for analysis of structure, plot, character and historical relevance. This course is recommended for students planning to major in Theater, Humanities, English, or Communication.
**Script Analysis**  
3 Units  
**Prerequisite:** None  
**General Education:** CSU Area C1  
**Course Transferable to CSU**  
**Hours:** 54 hours LEC  
This course will explore an in-depth methodology of reading, analyzing, and understanding play scripts in a variety of genres and styles intended for live theatrical production. Students will investigate techniques used to determine the playwright’s methods of creating the plot, themes, characters, and imagery within theatrical scripts and how theatre scripts are distinct from other forms of literature.

**Improvisation and Theatre Games**  
2 Units  
**Prerequisite:** None  
**Course Transferable to CSU**  
**Hours:** 36 hours LEC  
This class will include theatre games and improvisational exercises designed to develop trust and cooperation, mental acuity, and physical and vocal range as an actor. Improvisation technique will be developed, providing a strong foundation for more advanced work in scripted and non-scripted performance and also in modern rehearsal technique that involves extensive use of improvisation. Students may be required to attend live theatrical performances.

**An American Musical: Stage and Film**  
3 Units  
**Prerequisite:** None  
**General Education:** AA/AS Area I; CSU Area C1; IGETC Area 3A  
**Course Transferable to UC/CSU**  
**Hours:** 54 hours LEC  
This course studies the transition of the Musical from its earliest incarnation to the latest Broadway and box office hits. This class will examine both production films (movies made of stage productions) and feature films to examine how the theatrical techniques of the Musical have been translated to the media of film.

**From Stage to Screen, Production Design and Art Direction**  
3 Units  
**Prerequisite:** None  
**General Education:** AA/AS Area I; CSU Area C1; IGETC Area 3A  
**Course Transferable to UC/CSU**  
**Hours:** 54 hours LEC  
This course will examine the aesthetic design of films by looking at costume, scenery and prop design. Students will evaluate how the production design of a film helps to shape all of the other elements that make up the film. In the class we will examine how production design has been utilized to show the past, present and future as well as imaginary time periods. This class will draw upon theatrical design techniques and evaluate how those techniques have been used in film production.

**Acting for the Camera I**  
3 Units  
**Same As:** RTVF 378  
**Prerequisite:** RTVF 370 or TA 350 with a grade of “C” or better  
**General Education:** CSU Area C1  
**Course Transferable to UC/CSU**  
**Hours:** 36 hours LEC; 54 hours LAB  
This is an 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 are enacted and played back on videotape for class critiquing. Students experience single camera and multiple-camera studio production and performance techniques. This course is the same as RTVF 378, and only one may be taken for credit.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisite/Advisory</th>
<th>Course Transferable to UC/CSU</th>
<th>Hours: 36 hours LEC; 54 hours LAB</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 360</td>
<td>Styles of Acting</td>
<td>3</td>
<td>Prerequisite: TA 350 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.</td>
<td>Course Transferable to UC/CSU</td>
<td>Hours: 54 hours LEC</td>
</tr>
<tr>
<td>TA 395</td>
<td>Playwriting</td>
<td>3</td>
<td>Prerequisite: None</td>
<td>Course Transferable to CSU</td>
<td>Hours: 54 hours LEC</td>
</tr>
<tr>
<td>TA 401</td>
<td>Children’s Literature and Creative Drama</td>
<td>3</td>
<td>Prerequisite: None; General Education: AA/AS Area I; CSU Area C1</td>
<td>Course Transferable to CSU</td>
<td>Hours: 54 hours LEC</td>
</tr>
<tr>
<td>TA 404</td>
<td>Techniques of Puppetry</td>
<td>3</td>
<td>Prerequisite: None</td>
<td>Course Transferable to CSU</td>
<td>Hours: 54 hours LEC</td>
</tr>
<tr>
<td>TA 420</td>
<td>Stagecraft</td>
<td>3</td>
<td>Prerequisite: None</td>
<td>Course Transferable to UC/CSU</td>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
</tr>
<tr>
<td>TA 422</td>
<td>Stage Lighting</td>
<td>3</td>
<td>Prerequisite: None</td>
<td>Course Transferable to UC/CSU</td>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
</tr>
<tr>
<td>TA 424</td>
<td>Advanced Technical Theatre</td>
<td>3</td>
<td>Prerequisite: TA 420 and 422 with grades of “C” or better</td>
<td>Course Transferable to CSU</td>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
</tr>
<tr>
<td>TA 430</td>
<td>Costume Construction</td>
<td>3</td>
<td>Prerequisite: None</td>
<td>Course Transferable to UC/CSU</td>
<td>Hours: 36 hours LEC; 54 hours LAB</td>
</tr>
<tr>
<td>TA 460</td>
<td>Rehearsal and Performance</td>
<td>.5-3</td>
<td>Prerequisite: None; Course Family: Modern Performance and Technical Production</td>
<td>Enrollment Limitation: Ability to perform in current production as determined by audition, or to work backstage as determined by the requirements of the production.</td>
<td>Course Transferable to UC/CSU</td>
</tr>
</tbody>
</table>

This course explores puppetry as a dramatic medium. It covers the history and development of puppetry; puppet design and creation; puppet manipulation and improvisation; and puppet play production techniques and applications.
THEATRE ARTS PERFORMANCE
(TAP)

TAP 300
Modern Rehearsal and Performance I 1-3 Units
Course Family: Modern Performance and Technical Production
Prerequisite: None
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the first level of four courses which provide for a workshop training experience for students performing in their first role in a modern theatre production. Students interested in acting audition with the director for acting, singing or dancing roles. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 191)

TAP 301
Modern Rehearsal and Performance II 1-3 Units
Course Family: Modern Performance and Technical Production
Prerequisite: TAP 300 with a grade of "C" or better
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the second level of four courses which provide for a workshop training experience for students performing in their second role in a modern theatre production. Students interested in acting audition with the director for acting, singing or dancing roles. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 191)

TAP 302
Modern Rehearsal and Performance III 1-3 Units
Prerequisite: TAP 301 with a grade of "C" or better
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the third level of four courses which provide for a workshop training experience for students performing in their third role in a modern theatre production. Students interested in acting audition with the director for acting, singing or dancing roles. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 191)
TAP 303
Modern Rehearsal and Performance IV  1-3 Units
Course Family: Modern Performance and Technical Production
Prerequisite: TAP 302 with a grade of “C” or better
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the fourth level of four courses which provide for a workshop training experience for students performing in their fourth role in a modern theatre production. Students interested in acting audition with the director for acting, singing or dancing roles. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 191)

TAP 310
Modern Technical Production I  1-3 Units
Course Family: Modern Performance and Technical Production
Prerequisite: None
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the first level of four courses which provide for a workshop training experience for students working in their first position on the production crew of a modern theatre production. Students interested in technical work interview for positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, construction, scenery, properties, costume, lighting, sound, and running crews. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 192)

TAP 311
Modern Technical Production II  1-3 Units
Course Family: Modern Performance and Technical Production
Prerequisite: TAP 310 with a grade of “C” or better
Enrollment Limitation: Enrollment is limited to students with the ability to perform specific technical crew positions as determined by an interview and the requirements of the play.
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the second level of four courses which provide for a workshop training experience for students working in their second position on the production crew of a modern theatre production. Students interested in technical work interview for positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, construction, scenery, properties, costume, lighting, sound, and running crews. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 192)

TAP 312
Modern Technical Production III  1-3 Units
Course Family: Modern Performance and Technical Production
Prerequisite: TAP 311 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the third level of four courses which provide for a workshop training experience for students working in their third position on the production crew of a modern theatre production. Students interested in technical work interview for positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, construction, scenery, properties, costume, lighting, sound, and running crews. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 192)

TAP 313
Modern Technical Production IV  1-3 Units
Course Family: Modern Performance and Technical Production
Prerequisite: TAP 312 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the fourth level of four courses which provide for a workshop training experience for students working in their fourth position on the production crew of a modern theatre production. Students interested in technical work interview for positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, construction, scenery, properties, costume, lighting, sound, and running crews. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 192)

TAP 320
Classical Rehearsal and Performance I  1-3 Units
Course Family: Classical Performance and Technical Production
Prerequisite: None
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the first level of four courses which provide for a workshop training experience for students performing in their first role in a classical theatre production. Students interested in acting audition with the director for acting, singing or dancing roles. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 191)
TAP 321
Classical Rehearsal and Performance II 1-3 Units
Course Family: Classical Performance and Technical Production
Prerequisite: TAP 320 with a grade of “C” or better
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the second level of four courses which provide for a workshop training experience for students performing in their second role in a classical theatre production. Students interested in acting audition with the director for acting, singing or dancing roles. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 191)

TAP 322
Classical Rehearsal and Performance III 1-3 Units
Course Family: Classical Performance and Technical Production
Prerequisite: TAP 321 with a grade of “C” or better
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the third level of four courses which provide for a workshop training experience for students performing in their third role in a classical theatre production. Students interested in acting audition with the director for acting, singing or dancing roles. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 191)

TAP 323
Classical Rehearsal and Performance IV 1-3 Units
Course Family: Classical Performance and Technical Production
Prerequisite: TAP 322 with a grade of “C” or better
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the fourth level of four courses which provide for a workshop training experience for students performing in their fourth role in a classical theatre production. Students interested in acting audition with the director for acting, singing or dancing roles. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 191)

TAP 330
Classical Technical Production I 1-3 Units
Course Family: Classical Performance and Technical Production
Prerequisite: None
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the first level of four courses which provide for a workshop training experience for students working in their first position on the production crew of a classical theatre production. Students interested in technical work interview for positions in stage management, crewing, set construction, costumes and make up, lighting and sound, box office and publicity. Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, construction, scenery, properties, costume, lighting, sound, and running crews. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 192)

TAP 331
Classical Technical Production II 1-3 Units
Course Family: Classical Performance and Technical Production
Prerequisite: TAP 330 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the second level of four courses which provide for a workshop training experience for students working in their second position on the production crew of a classical theatre production. Students interested in technical work interview for positions in stage management, crewing, set construction, costumes and make up, lighting and sound, box office and publicity. Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, construction, scenery, properties, costume, lighting, sound, and running crews. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 192)

TAP 332
Classical Technical Production III 1-3 Units
Course Family: Classical Performance and Technical Production
Prerequisite: TAP 331 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the third level of four courses which provide for a workshop training experience for students working in their third position on the production crew of a classical theatre production. Students interested in technical work interview for positions in stage management, crewing, set construction, costumes and make up, lighting and sound, box office and publicity. Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, construction, scenery, properties, costume, lighting, sound, and running crews. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 192)
TAP 333
Classical Technical Production IV 1-3 Units
Course Family: Classical Performance and Technical Production
Prerequisite: TAP 332 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the fourth of four courses which provide for a workshop
training experience for students working in their fourth position on the
production crew of a classical theatre production. Students interested
in technical work interview for positions in stage management, crewing,
set construction, costumes and makeup, lighting and sound, box office
and publicity. Students will gain practical experience in the application
of production responsibilities in any of the following: stage management,
house management, construction, scenery, properties, costume, lighting,
and running crews. All students performing in productions may
enroll in this class for one to three units at the discretion of the instructor.
Students may enroll in this class after the close of late registration at the
discretion of the instructor. (C-ID THTR 192)

TAP 340
Musical Rehearsal and Performance I 1-3 Units
Course Family: Musical Performance and Technical Production
Prerequisite: None
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the first of four courses which provide for a workshop
training experience for students performing in their first role in a musical
theatre production. Students interested in acting audition with the
director for acting, singing or dancing roles. All students performing in
productions may enroll in this class for one to three units at the discretion
of the instructor. Students may enroll in this class after the close of late
registration at the discretion of the instructor. (C-ID THTR 191)

TAP 341
Musical Rehearsal and Performance II 1-3 Units
Course Family: Musical Performance and Technical Production
Prerequisite: TAP 340 with a grade of “C” or better
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the second level of four courses which provide for a
workshop training experience for students performing in their second
role in a musical theatre production. Students interested in acting
audition with the director for acting, singing or dancing roles. All students
performing in productions may enroll in this class for one to three units at the discretion
of the instructor. Students may enroll in this class after the close of late
registration at the discretion of the instructor. (C-ID THTR 191)

TAP 342
Musical Rehearsal and Performance III 1-3 Units
Course Family: Musical Performance and Technical Production
Prerequisite: TAP 341 with a grade of “C” or better
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the third level of four courses which provide for a workshop
training experience for students performing in their third role in a musical
theatre production. Students interested in acting audition with the
director for acting, singing or dancing roles. All students performing in
productions may enroll in this class for one to three units at the discretion
of the instructor. Students may enroll in this class after the close of late
registration at the discretion of the instructor. (C-ID THTR 191)

TAP 343
Musical Rehearsal and Performance IV 1-3 Units
Course Family: Musical Performance and Technical Production
Prerequisite: TAP 342 with a grade of “C” or better
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the fourth level of four courses which provide for a
workshop training experience for students performing in their fourth
role in a musical theatre production. Students interested in acting
audition with the director for acting, singing or dancing roles. All students
performing in productions may enroll in this class for one to three units at the discretion
of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 191)

TAP 350
Musical Technical Production I 1-3 Units
Course Family: Musical Performance and Technical Production
Prerequisite: None
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the first of four courses which provide for a workshop
training experience for students working in their first position on the
production crew of a musical theatre production. Students interested
in technical work interview for positions in stage management,
crewing, set construction, costumes and makeup, lighting and sound,
box office and publicity. Students will gain practical experience in the application
of production responsibilities in any of the following: stage
management, house management, construction, scenery, properties,
costume, lighting, sound, and running crews. All students performing in
productions may enroll in this class for one to three units at the discretion
of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 192)

TAP 351
Musical Technical Production II 1-3 Units
Course Family: Musical Performance and Technical Production
Prerequisite: TAP 350 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the second of four courses which provide for a workshop
training experience for students working in their second position on the
production crew of a musical theatre production. Students interested in
technical work interview for positions in stage management, crewing,
set construction, costumes and makeup, lighting and sound, box office
and publicity. Students will gain practical experience in the application
of production responsibilities in any of the following: stage
management, house management, construction, scenery, properties,
costume, lighting, sound, and running crews. All students performing in
productions may enroll in this class for one to three units at the discretion
of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 192)
TAP 352
Musical Technical Production III 1-3 Units
Course Family: Musical Performance and Technical Production
Prerequisite: TAP 351 with a grade of "C" or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the third of four courses which provide for a workshop training experience for students working in their third position on the production crew of a musical theatre production. Students interested in technical work interview for positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, construction, scenery, properties, costume, lighting, sound, and running crews. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 192)

TAP 353
Musical Technical Production IV 1-3 Units
Course Family: Musical Performance and Technical Production
Prerequisite: TAP 352 with a grade of "C" or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the fourth of four courses which provide for a workshop training experience for students working in their fourth position on the production crew of a musical theatre production. Students interested in technical work interview for positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, construction, scenery, properties, costume, lighting, sound, and running crews. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor. (C-ID THTR 192)

TAP 360
Children’s Theatre Performance I 1-3 Units
Course Family: Children’s Theatre Performance and Technical Production
Prerequisite: None
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the first level of four courses which provide a workshop training experience for students performing in their first role in a children’s theatre production. Students interested in acting audition with the director for acting, singing or dancing roles. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor.

TAP 361
Children’s Theatre Production II 1-3 Units
Course Family: Children’s Theatre Performance and Technical Production
Prerequisite: TAP 360 with a grade of “C” or better
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the second level of four courses which provide a workshop training experience for students performing in their second role in a children’s theatre production. Students interested in acting audition with the director for acting, singing or dancing roles. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor.

TAP 362
Children’s Theatre Production III 1-3 Units
Course Family: Children’s Theatre Performance and Technical Production
Prerequisite: TAP 361 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the third level of four courses which provide for a workshop training experience for students performing in their third role in a children’s theatre production. Students interested in acting audition with the director for acting, singing or dancing roles. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor.

TAP 363
Children’s Theatre Production IV 1-3 Units
Course Family: Children’s Theatre Performance and Technical Production
Prerequisite: TAP 362 with a grade of “C” or better
Enrollment Limitation: Audition
Course Transferable to UC/CSU
Hours: 162 hours LAB
This course is the fourth level of four courses which provide a workshop training experience for students performing in their fourth role in a children’s theatre production. Students interested in acting audition with the director for acting, singing or dancing roles. All students performing in productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor.

TAP 370
Children’s Theatre Technical Production I 1-3 Units
Course Family: Children’s Theatre Performance and Technical Production
Prerequisite: None
Enrollment Limitation: Interview
Course Transferable to CSU
Hours: 162 hours LAB
This course is the first level of four courses which provide a workshop training experience for students working in their first position on the production crew of a children’s theatre production. Students interested in technical work interview for positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, construction, scenery, properties, costume, lighting, sound, and running crews. All students working on productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor.
TAP 371
Children's Theatre Technical Production II  1-3 Units
Course Family: Children's Theatre Performance and Technical Production
Prerequisite: TAP 370 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to CSU
Hours: 162 hours LAB
This course is the second level of four courses which provide a workshop training experience for students working in their second position on the production crew of a children's theatre production. Students interested in technical work interview for positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, construction, scenery, properties, costume, lighting, sound, and running crews. All students working on productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor.

TAP 372
Children's Theatre Technical Production III  1-3 Units
Course Family: Children's Theatre Performance and Technical Production
Prerequisite: TAP 371 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to CSU
Hours: 162 hours LAB
This course is the third level of four courses which provide a workshop training experience for students working in their third position on the production crew of a children's theatre production. Students interested in technical work interview for positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, construction, scenery, properties, costume, lighting, sound, and running crews. All students working on productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor.

TAP 373
Children's Theatre Technical Production IV  1-3 Units
Course Family: Children's Theatre Performance and Technical Production
Prerequisite: TAP 372 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to CSU
Hours: 162 hours LAB
This course is the fourth level of four courses which provide a workshop training experience for students working in their fourth position on the production crew of a children's theatre production. Students interested in technical work interview for positions in stage management, crewing, set construction, costumes and makeup, lighting and sound, box office and publicity. Students will gain practical experience in the application of production responsibilities in any of the following: stage management, house management, construction, scenery, properties, costume, lighting, sound, and running crews. All students working on productions may enroll in this class for one to three units at the discretion of the instructor. Students may enroll in this class after the close of late registration at the discretion of the instructor.
DEGREE
A.S.—Veterinary Technology

CERTIFICATE OF ACHIEVEMENT
Veterinary Technology

Program Description
CRC’s Veterinary 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, and
- achievement of a passing score on a state board exam

Career Opportunities
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

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.S.—Veterinary Technology
CODE #1017

Enrollment Eligibility:
To be eligible for enrollment in the program, the student must meet the following criteria:
- Completion of BIOL 400 or BIOL 310 with a grade of “C” or better.
- Completion of CHEM 305 with a grade of “C” or better.
- Completion of BIOL 440 with a grade of “C” or better.
- Completion of a pre-enrollment form including official copies of all college transcripts.
- AVMA requires that all applicants for enrollment must have a high school diploma or G.E.D.

Enrollment Process:
Eligible students are selected for the program according to the following steps:
- Admission to the program is based on a random lottery process from among the qualified applicants. Only students who meet the educational and pre-veterinary technology requirements, and follow the pre-enrollment procedures will be considered for the program. Meeting all the requirements does not guarantee acceptance into the program.

Forms are available from the Careers and Technology Division office or apply on-line at www.crc.losrios.edu/vettechapp. Only completed application packets will be considered. Completed applications must include all official college transcripts. Transcripts must be submitted as soon as they are available. For the latest admission requirements refer to: www.crc.losrios.edu/vettech

NOTE: The AVMA requires that all applicants for enrollment must have a high school diploma or G.E.D.

Only students who meet the pre-enrollment requirements and follow the pre-enrollment procedures will be considered for the program. Applications must be received for the following Fall semester by April 1.

IMPORTANT NOTE TO STUDENTS
In order to ensure that prerequisites for subsequent courses are met and to allow completion of course work in four semesters, the student must adhere to the following schedule. NOTE: Each VT course is offered only once per year in either the spring or fall semester, as shown in the Required Program section.

- **SEMESTER 1 (Fall):** VT 100, VT 111
- **SEMESTER 2 (Spring):** VT 110, VT 113, VT 152, VT 298
- **SEMESTER 3 (Fall):** VT 120, VT 122, VT 126, VT 298
- **SEMESTER 4 (Spring):** VT 123, VT 130, VT 131, VT 134, VT 298

With the exception of VT 110, 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.

-- CONTINUED ON NEXT PAGE --
### A.S.—Veterinary Technology continued

VT 298, Work Experience, can only be taken after successful completion of VT 100 and VT 111. Per AVMA requirements, a minimum of 300 hours is required.

Failure to complete all required courses for the A.S. degree will make you ineligible to sit for the State Board examination under the AVMA accredited program eligibility guidelines.

### REQUIRED PROGRAM

<table>
<thead>
<tr>
<th>Units</th>
<th>First Year (Fall):</th>
<th>First Year (Spring):</th>
<th>Second Year (Fall):</th>
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</tr>
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<tbody>
<tr>
<td>3</td>
<td>VT 100 Introduction to Veterinary Technology</td>
<td>VT 152 Introduction to Laboratory Animals and Caged Birds</td>
<td>VT 120 Pharmacology and Anesthesiology for the Veterinary Technician</td>
<td>VT 123 Large Animal Disease: Pathology</td>
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<tr>
<td>4</td>
<td>VT 111 Anatomy-Physiology of Animals</td>
<td>VT 110 Veterinary Office Practice</td>
<td>VT 122 Animal Disease: Pathology</td>
<td>VT 130 Advanced Veterinary Technology</td>
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<tr>
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<td>VT 113 Clinical Laboratory Techniques for Veterinary Technicians</td>
<td>VT 126 Dentistry for the Veterinary Technician</td>
<td>VT 131 Introduction to Diagnostic Imaging</td>
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<td></td>
<td></td>
<td>VT 129 Work Experience in Veterinary Technology</td>
<td>VT 298 Work Experience in Veterinary Technology</td>
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</tbody>
</table>

**TOTAL UNITS REQUIRED: 40**

1 Students enrolled in VT 100 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
2 Students enrolled in VT 111 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
3 Students enrolled in VT 152 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
4 Students enrolled in VT 113 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
5 Students enrolled in VT 120 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
6 Students enrolled in VT 122 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
7 Students enrolled in VT 130 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
8 Students enrolled in VT 131 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
9 Beginning with the entering class of 2010-11, students must complete a minimum of 300 hours of internship/work experience. Students in a paid work experience earn one unit for a minimum of 75 hours. Students in an unpaid work experience earn one unit for a minimum of 60 hours. Work Experience is repeatable when there is new or expanded learning on the job.

### Associate Degree

The Veterinary Technology Associate in Science (A.S.) Degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

### CERTIFICATE OF ACHIEVEMENT

**Veterinary Technology**

**CODE #1017**

This certificate is designed for students with three years of verifiable full-time experience working as an unregistered veterinary assistant. Upon completion of this certificate program, and three years clinical experience, the student will be fully eligible to take the State Board examination to become registered as a Veterinary Technician.

**Enrollment Eligibility:**

To be eligible for enrollment in the program, the student must meet the following criteria:

- Completion of BIOL 400 or BIOL 310 with a grade of “C” or better.
- Completion of CHEM 305 with a grade of “C” or better.
- Completion of BIOL 440 with a grade of “C” or better.
- Completion of a pre-enrollment form including official copies of all college transcripts.
- AVMA requires that all applicants for enrollment must have a high school diploma or G.E.D.

**Enrollment Process:**

Students are selected for the program according to the following steps:

- Admission to the program is based on a random lottery process from among the qualified applicants. Only students who meet the educational and pre-veterinary technology requirements, and follow the pre-enrollment procedures will be considered for the program. Meeting all the requirements does not guarantee acceptance into the program.

### REQUIRED PROGRAM

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**TOTAL UNITS REQUIRED: 36**

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8 Students enrolled in VT 131 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
9 Students enrolled in VT 129 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
10 Students enrolled in VT 134 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.

--- CONTINUED ON NEXT PAGE ---
Veterinary Technology continued

5 Students enrolled in VT 120 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
6 Students enrolled in VT 126 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
7 Students enrolled in VT 130 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
8 Students enrolled in VT 131 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.
9 Students enrolled in VT 132 will be required to spend 2-6 hours per week in the care of colony animals. Shifts will be assigned and will include weekends, holidays, and semester break.

VETERINARY TECHNOLOGY (VT)

VT 100 Introduction to Veterinary Technology 3 Units
Prerequisite: None
Enrollment Limitation: Students must complete the pre-enrollment process for the Veterinary Technology program. All students entering the Veterinary Technology program must complete BIOL 400 or BIOL 310 and BIOL 440 and CHEM 305 to be considered for pre-enrollment. See the course catalog or a counselor for more information.
Hours: 36 hours LEC; 54 hours LAB
This is an orientation course that 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. Students will also be required to spend 2-6hrs/week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break. Enrollment in this course limited to students admitted to the Veterinary Technology program via the pre-enrollment process. See the course catalog or a counselor for more information.

VT 110 Veterinary Office Practice 3 Units
Prerequisite: None
Advisory: Completion of or concurrent enrollment in CISC 302
Enrollment Limitation: Student must complete pre-enrollment process.
Hours: 36 hours LEC; 54 hours LAB
A practice-oriented course that includes hospital and clinic management procedures, business and professional aspects of practice, ethical and legal considerations for the Registered Veterinary Technician and his/her employer. Students will be introduced to OSHA requirements and regulations as they pertain to veterinary hospitals. Assignments in medical terminology will be given. Enrollment in this course limited to students admitted through the pre-enrollment process.

VT 111 Anatomy-Physiology of Animals 4 Units
Prerequisite: None
Corequisite: Concurrent enrollment in VT 100 (may be taken previously)
Enrollment Limitation: Students must complete the pre-enrollment process for the Veterinary Technology program. See the course catalog or a counselor for more information.
Hours: 54 hours LEC; 72 hours LAB
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.) Students will also be required to spend 2-6hrs/week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break.

VT 113 Clinical Laboratory Techniques for Veterinary Technicians 4 Units
Prerequisite: VT 100 and 111 with grades of “C” or better
Hours: 54 hours LEC; 72 hours LAB
This course will cover the basic clinical laboratory skills needed by Registered Veterinary Technicians. Topics covered will include parasitology, cytology, urinalysis, microbiology, and 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 animals for specimen collection procedures. Office procedures as they pertain to clinical laboratory work will be included: filing, recordkeeping, telephone reports, etc. Students will be required to spend 2-6hrs/week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break.

VT 120 Pharmacology and Anesthesiology for the Veterinary Technician 4 Units
Prerequisite: VT 111 and 113 with grades of “C” or better
Hours: 54 hours LEC; 72 hours LAB
This course will lay the foundation for the students’ 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 types of 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. Students will be required to spend 2-6hrs/week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break. Students will also be assigned a dog and cat which will require an additional 140 min/wk for obedience training, socialization and grooming.
VT 122
Animal Disease: Pathology 3 Units
Prerequisite: VT 113 with a grade of “C” or better
Corequisite: BIOL 440 (may have been taken previously)
Hours: 54 hours LEC
A course of study designed to acquaint the Veterinary Technician trainee with the many varied large animal disease entities seen in the animal health field. While most of the diseases discussed will be those of the common large domestic animals, some emerging and foreign animal diseases will be investigated with an emphasis on public health concerns. There will be exposure to such areas of study as etiology, pathogenesis, symptomatology and control of disease. Necropsy demonstrations will be provided as visual aids to the textbook study.

VT 123
Large Animal Disease: Pathology 3 Units
Prerequisite: VT 113 with a grade of “C” or better
Corequisite: BIOL 440 (may have been taken previously)
Hours: 54 hours LEC
A course of study designed to acquaint the Veterinary Technician trainee with the many varied large animal disease entities seen in the animal health field. While most of the diseases discussed will be those of the common large domestic animals, some emerging and foreign animal diseases will be investigated with an emphasis on public health concerns. There will be exposure to such areas of study as etiology, pathogenesis, symptomatology and control of disease. Course will cover mechanisms of protecting the nation’s food supply through herd health disease prevention and control programs for zoonotic diseases.

VT 126
Dentistry for the Veterinary Technician 1.5 Units
Prerequisite: None
Corequisite: VT 120
Hours: 18 hours LEC; 27 hours LAB
This course will prepare the student for all aspects of veterinary diagnostics and prophylaxis in dogs and cats appropriate to the veterinary technician. It will include instruction in dental charting, radiography, prophylaxis and extractions. Students will perform dental radiography and prophylaxis on anesthetized animals. Students will also be required to spend 2-6hrs/week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break.

VT 130
Advanced Veterinary Technology 4 Units
Prerequisite: VT 120 with a grade of “C” or better
Hours: 54 hours LEC; 72 hours LAB
This course includes instruction in advanced veterinary technology practices which includes, but is not limited to abnormal hematology, cytology, an introduction to bone marrow aspiration and evaluation, veterinary nutrition, emergency patient care, and advanced life support. There will be an emphasis placed upon advanced nursing techniques for companion animals, laboratory animals and non domestic species. Students will be required to spend two to six hours per week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break. Students will also be assigned a dog and cat which will require an additional 140 minutes per week for obedience training, socialization and grooming.

VT 131
Introduction to Diagnostic Imaging 3 Units
Prerequisite: VT 120 and 122 with grades of “C” or better
Hours: 36 hours LEC; 54 hours LAB
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 as well as 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. A local field trip to a facility that offers the opportunity to perform large animal radiographic techniques may be required.

VT 134
Large Animal Nursing 1.5 Units
Prerequisite: VT 111 and 113 with grades of “C” or better
Hours: 18 hours LEC; 27 hours LAB
A course in restraint, behavior, anesthesia and nursing care of domestic large animal species. Species covered will include horses, cattle, sheep, goats, and swine. Students will learn and have hands on practice in basic restraint, physical examination, oral and injectable medication administration, and blood and urine collection techniques. Instruction is provided through lectures followed by hands on practice and demonstrations at off campus livestock facilities. Students will also receive instruction in the use of restraint equipment and techniques for obstetrical examination and dystocia, administration of and complications associated with large animal anesthesia, tail and leg wrapping, intravenous catheterization, and common husbandry practices including disbudding, tail docking, and castration.

VT 152
Introduction to Laboratory Animals and Caged Birds 2 Units
Prerequisite: VT 100 and 111 with grades of “C” or better
Hours: 27 hours LEC; 27 hours LAB
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 the American Association for Laboratory Animal Science (AALAS) certification. A field trip to a research facility is required. Students will also be required to spend 2-6hrs/week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break.

VT 295
Independent Studies in Veterinary Technology 1-3 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
VT 298
Work Experience in Veterinary Technology 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals Veterinary Technology.
Hours: 300 hours LAB

This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in associate degree level or certificate occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

VT 299
Experimental Offering in Veterinary Technology .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB
Program Description
CRC offers the basic grammar and conversation courses in Vietnamese. Students will be able to understand the spoken language, to speak with reasonable fluency, and to write at their speaking level.

Career Opportunities
Airlines/Travel
Bilingual Education/Teacher’s Aide
Emergency Services
Foreign Language Teacher
Intelligence/Military Service
IRS/State Franchise Tax Board
Social Security Officer
Translating & Interpreting
Overseas Employment:
Business & Commerce

Some Career Opportunities may require more than two years of college study.

Highlights
• Courses in Vietnamese
• Multimedia, interactive language lab with Internet capabilities
• Internationally trained faculty and staff
• Oral Proficiency Certification in 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 411 (2A) level course (or above) of their native language.

NOTE:
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

VIETNAMESE (VIET)

VIET 299
Experimental Offering in Vietnamese .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

VIET 401
Elementary Vietnamese 4 Units
Prerequisite: None
General Education: AA/AS Area I; CSU Area C2; IGETC Area 6
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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 situation utilizing learned materials, standardized messages, phrases and expression 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 knowledge and an appreciation of a geography, culture and people of regions where Vietnamese is spoken and of Vietnamese-speakers’ contributions to North American and world-wide cultures.

VIET 402
Elementary Vietnamese 4 Units
Prerequisite: VIET 401 with a grade of “C” or better
General Education: AA/AS Area I; CSU Area C2; IGETC Area 6
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This is second semester Elementary Vietnamese. It is designed for students who have completed VIET 401 or two years of high school Vietnamese. It provides refinement of skills begun in 401. 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 401 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.
VIET 411
Intermediate Vietnamese 4 Units
Prerequisite: VIET 402 with a grade of "C" or better
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B;
IGETC Area 6
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
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 402. 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 402. 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.

VIET 412
Intermediate Vietnamese 4 Units
Prerequisite: VIET 411 with a grade of "C" or better
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B;
IGETC Area 6
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This is second semester Intermediate Vietnamese. It is designed for students who have completed Vietnamese 411 or four years of high school Vietnamese. It provides continued development of skills attained in 411. 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.

VIET 495
Independent Studies in Vietnamese 1-3 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

VIET 499
Experimental Offering in Vietnamese .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.S. — Welding Technology

CERTIFICATE OF ACHIEVEMENT
Welding Technology

CERTIFICATE OF PROFICIENCY
Welding Code Specialist Certificate
Welding Fabricator Specialist Certificate

Program Description
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.

The Welding Degree and Certificate of Achievement at Cosumnes River College specialize in welding training to meet current Welding Code Standards for Welder Operator Qualification. In addition, students will be introduced to Cal-OSHA and Fed-OSHA safety standards and current industry welding procedures for the purpose of competitive employment. All welding graduates will have the opportunity to become a certified welder, a certified forklift operator, and possess the Ten Hour OSHA Construction Safety Card.

The Certificates of Proficiency can begin preparing students for employment an begin students on their path to earning the Welding Technology A.S. Degree or Certificate of Achievement. They can also be used in conjunction with other technology areas such as:

• Automotive Mechanics Technology
• Building Inspection Technology
• Construction Management Technology

Career Opportunities
Welding Technician
Welding Inspection
Welding Engineering
Welding Fabricator
Welding Safety Trainer
Welding Inspector
Welding Quality Control Supervisor
Welding Supervisor
Welding Teacher
Welding Instructor
Welding Sales
Welding Safety Trainer
Trucking & Automotive Welding
Production Welder
Production Field Welder
Owner or Operator of a welding business
Manager of a welding business
Home/Handicraft & Hobby Construction
Sculpting

Highlights
• Classes for beginning and advanced welders
• Certification from the American Welding Society
• Hands-on experience and opportunities for participation in student projects

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

DEGREE
A.S. — Welding Technology
CODE #1978

REQUIRED PROGRAM ........................................................................ Units
WELD 100 Introduction to Welding ................................................... 3
WELD 110 Advanced SMAW & Semi-Automatic Process ............ 4
WELD 120 Welding Inspection & Certification .......................... 5
WELD 135 Introduction to the Gas Metal Arc Welding Process .... 1.5
WELD 136 Gas Tungsten Arc Welding Process ......................... 2.5
WELD 290 Advanced Student Projects .................................. 2

A minimum of 6 units from the following: ................................ 6
AGB 300 Introduction to Agriculture Business (3)
BIT 106 Introduction to Special Inspection - Concrete, Masonry, Steel, and Soils (3)
CMT 300 Introduction to Construction Plans & Specifications (3)
AMT 300 Automotive Fundamentals & Shop Procedures (4)
WELD 295 Independent Studies in Welding (1 - 3)
WELD 298 Work Experience in Welding (1 - 4)

TOTAL UNITS REQUIRED: ......................................................... 24

Associate Degree
The Welding Technology Associate in Science (A.S.) degree may be obtained by completion of the required program and general requirements as well as sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Welding Technology
CODE #1979

REQUIRED PROGRAM ........................................................................ Units
Summer, Fall or Spring:
WELD 100 Introduction to Welding ................................................... 3
Fall:
WELD 110 Advanced SMAW & Semi-Automatic Process ............ 4
WELD 120 Welding Inspection & Certification .......................... 5
Fall or Spring:
WELD 135 Introduction to the Gas Metal Arc Welding Process .... 1.5
Fall or Spring:
WELD 136 Gas Tungsten Arc Welding Process ......................... 2.5
Fall or Spring:
WELD 290 Advanced Student Projects .................................. 2

TOTAL UNITS REQUIRED: ......................................................... 18
WELDING (WELD)

WELD 100
Introduction to Welding 3 Units
Prerequisite: None
Enrollment Limitation: Minors are required to have a parent or guardian permission before registering for any welding course. Please complete the proper forms during the registration process. A maximum class capacity is twenty five students due to the constraints of the welding laboratory.
Hours: 36 hours LEC; 54 hours LAB
An introductory course that covers the safety, the scientific theory and techniques of operating an electric arc welding machine, oxygen-acetylene cutting, welding and brazing apparatus, plasma arc cutting, gas metal arc welding and gas tungsten arc welding process. The course also includes an introduction to the flux core arc welding process, metallurgy, welding codes, certification procedures, welding symbols, modern power sources, proper joint design, the proper welding techniques all welding and cutting processes.

WELD 110
Advanced SMAW and Semi-Automatic Process 4 Units
Prerequisite: WELD 100 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Hours: 54 hours LEC; 54 hours LAB
The WELD 110 advanced welding course specializes in vertical up and overhead welding procedures with the shielded metal arc welding (SMAW) and flux core arc welding process (FCAW). Students will be introduced to current welding code regulation for structural steel, bridge and seismic applications with the SMAW and FCAW process. Students will learn welding procedures, preparation procedures for welding coupons and welder qualification protocol in the WELD 120 certification course.

WELD 120
Welding Inspection and Certification 5 Units
Prerequisite: WELD 110 with a grade of "C" or better; in order to enroll in WELD 120, the student must have five years of work experience performing welding and cutting operations if that student has not completed WELD 100 and WELD 110 with a C or better grade.
Hours: 72 hours LEC; 54 hours LAB
The WELD 120 advanced welding course allows students to perform welder qualification procedure examinations to meet or exceed industry standards. Students will be able to perform welder qualification procedures in the shielded metal arc welding(SMAW), flux core arc welding(FCAW), gas metal arc welding(GMAW) and gas tungsten arc welding processes(GTAW).

WELD 135
Introduction to the Gas Metal Arc Welding Process 1.5 Units
Prerequisite: None
Enrollment Limitation: Minors (individuals who are under the age of eighteen years old) are required to have a parent or guardian approval.
Hours: 18 hours LEC; 27 hours LAB
The Gas Metal Arc Welding(GMAW) course is an introductory welding course designed for the career or non-career welding student who requires the proper safety training and welding procedures to perform the GMAW process to meet industry standards.
WELD 136
Gas Tungsten Arc Welding Process 2.5 Units
Prerequisite: WELD 100 with a grade of "C" or better
Hours: 27 hours LEC; 54 hours LAB
WELD 136 covers the Gas Tungsten Arc Welding (GTAW) process of carbon steel, stainless steel, aluminum and other alloys used in the welding industry. Welding technique, operator certification and welding procedure qualification standards will be emphasized throughout the course.

WELD 160
Welding Technology for the Automotive Industry 1.5 Units
Prerequisite: None
Enrollment Limitation: Minors are required to have a parent or guardian approval before registering for any welding course. Please complete all necessary forms during the registration process.
Hours: 18 hours LEC; 27 hours LAB
This is an introductory level course that addresses safety and the proper procedures pertaining to the following equipment: Oxygen Acetylene Cutting and Welding equipment, Electric Arc Welding and Plasma Arc Cutting equipment, Gas Metal Arc Welding equipment and Gas Tungsten Arc Welding equipment. The course focuses on welding technology for the purpose of modification and or repair of automotive related components.

WELD 290
Advanced Student Projects 2 Units
Prerequisite: WELD 100 with a grade of "C" or better
Enrollment Limitation: Any student who registers for a welding class who is a minor (under the age of eighteen years old) must have a parent or guardian approval by signing the proper documents during the registration process.
Hours: 18 hours LEC; 54 hours LAB
WELD 290 provides the student the opportunity to design and construct metal projects. The fabricated project is specifically selected for the student by the professor and the student’s skill level. The student will be required to draft blueprints, draw weld symbols and calculate material costs.

WELD 294
Topics in Welding .5-5 Units
Prerequisite: WELD 100 with a grade of "C" or better
Hours: 54 hours LEC; 108 hours LAB
WELD 294 is a course developed in cooperation with the industry to meet specialized training needs of the Sacramento area or specifically high demand welding processes for the welding industry.

WELD 295
Independent Studies in Welding 1-3 Units
Prerequisite: None
Hours: 54 hours LEC; 54 hours LAB
An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of "Special Studies" for full details of Independent Studies.

WELD 298
Work Experience in Welding 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Welding.
Hours: 300 hours LAB
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in associate degree level or certificate occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

WELD 299
Experimental Offering in Welding .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB
Program Description
Cooperative Work Experience Education (Co-op) is a unique, experiential, academic program that allows individuals to apply what they’ve learned in the classroom to a work environment. Upon completion of their Co-op experience, students may earn 1-4 units of transferable credit with a letter grade.

Co-op serves: College interns, volunteers, and employees. It is also one of several Living Skills graduation requirements for an associate degree.

Co-op Internships and Opportunities
Internships and volunteer experiences provide an opportunity for students to obtain work experience in their major. This activity assists students to develop technical skills, check out career choices, build confidence, network with people in the field, and transition for entry into a competitive labor market.

Interested students must apply two or more weeks before classes start and are required to participate in a weekly career management orientation. College credit is earned and internships may be paid or non-paid.

Employees
Co-op also assists our busy employed students who are interested in advancing within their existing work environment. Through Co-op and the approval of the student’s employer supervisor, students can apply what they have learned in the classroom to their job.

College credit is earned.

NOTE:
Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo

How the Program Works
There are two types of Co-op Programs: Vocational and General.

Vocational Work Experience (298/498) provides students with opportunities to develop or add marketable skills related to their vocational study programs.

Eligible students must:

- Be working in a paid job, internship, or volunteer opportunity. Students not currently in an internship opportunity who 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, first week of an eight week, or summer session to remain in the program.

- With employer’s assistance, establish new or expanded on-the-job skills that will be documented.

- Participate in a weekly career management orientation (course) or qualify for the “Returning Co-op Student” status. However, attendance is required for everyone for the first two orientations.

- 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 sales associate should enroll in Business).

* Interested students may earn college credit in the following majors:

Accounting 498
Agriculture Business 498
Animal Science 498
Anthropology 498
Architectural Design Technology 498
Architecture 498
Astronomy 498
Automotive Mechanics Technology 498
Biology 498
Building Inspection Technology 298
Business 498
Computer Information Science (CISC) 498
Construction 298
Construction Management Technology 498
Chemistry 498
Culinary Arts Management 498
Early Childhood Education 498
Emergency Medical Technology 298
Engineering 498
Fire Technology 498
Health Care IT 298
Health Information Technology 298
Horticulture 498
Human Services 498

(continued on next page)
General Work Experience (198):

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 an eight week or a summer session) to remain in the program.

- Register for "General Work Experience" (Work Experience 198), and participate in a weekly career management orientation (course).

Co-op Work Experience (198/298/498)

Co-op has two different ways to qualify for the program:

New (1st Time Co-op) Students:

A. You are working a paid or non-paid job, internship, or volunteer opportunity.
B. You must participate in a weekly orientation (course). This orientation (course) will cover workforce/career transition issues.
C. Your grade and units are earned based on your performance in the workplace (developing new skills) and classroom assignments.

Returning Students:

A. You have completed a Co-op class with a grade of "C" or better, at CRC.
B. You are working a paid or non-paid job, internship, or volunteer opportunity.
C. Orientation is required for this program for the first two sessions and you must establish new on-the-job skills with your employer and complete the necessary forms.
D. Your grade and units are earned based on your work performance and outside homework assignments that emphasize career transition.

For more information, call (916) 691-7372 or visit our website: http://wexp.losrios.edu

WORK EXPERIENCE (WEXP)

WEXP 198
Work Experience - General 1-3 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job.
Hours: 300 hours LAB

This course provides students with opportunities to develop marketable skills in preparation for employment or advancement within a career. It is designed for students interested in exploring various career options. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 6 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

WEXP 298
Work Experience in (Subject) 1-4 Units
Prerequisite: None
General Education: AA/AS Area III(b)
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals.
Hours: 300 hours LAB

This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in associate degree level or certificate occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.
This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student’s progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. Work Experience may be taken for a total of 16 units when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.
College Administration

President ......................................................................................................................... Dr. Deborah J. Travis  
B.A., UC, Irvine; M.B.A., CSU, Long Beach; Ed.D. UC, Davis

VICE PRESIDENTS

Administrative Services and Student Support ........................................................................ Cory Wathen  
B.S., UC, Davis; M.B.A., CSU, Sacramento

Instruction and Student Learning .......................................................................................... Whitney Yamamura  
B.A., M.A., CSU, Sacramento

Student Services and Enrollment Management .................................................................... Dr. Celia Esposito-Noy  
B.A., San Francisco State University; M.A. Stanford University  
Ed.D., Mills College

ASSOCIATE VICE PRESIDENT

Instruction and Student Learning ......................................................................................... Dr. Jamey A. Nye  
B.A., M.A., CSU, Sacramento; Ph.D., Indiana University of Pennsylvania

DEANS

Business and Family Science ............................................................................................... TBD

Careers and Technology ....................................................................................................... Robert S. Johnson  
A.A., Chabot College; B.A., California Polytechnic State University; M.P.A., CSU, Hayward

College Planning and Research .......................................................................................... Dr. Katherine E. McLain  
A.A., College of the Siskiyous; B.A., M.S., San Jose State University;  
Ph.D., Capella University

Communication, Visual and Performing Arts ...................................................................... Torence J. Powell  
B.S., CSU, Los Angeles; M.A., University of Redlands;  
M.U.P., University of Washington

Counseling and Student Services ......................................................................................... Dr. Michael W. Marion, Jr.  
B.A., M.A., San Diego State University; Ph.D., University of Southern California

Humanities and Social Sciences .......................................................................................... Virginia R. McReynolds  
B.A., M.A., CSU, Sacramento

Learning Resources and College Technology ....................................................................... Stephen McGloughlin  
B.A., M.A., Trinity College, Dublin, Ireland
DEANS – continued

Kinesiology and Athletics .............................................................................................................................................
Elizabeth Belyea
B.A., M.A., CSU, Chico

Science, Mathematics and Engineering .............................................................................................................................
Dr. Robert L. Montañez
B.S., CSU, Stanislaus; Ph.D., UC, Santa Cruz

Student Services and Enrollment Management ...........................................................................................................
Christine Thomas
B.S., M.S., CSU, Sacramento

OTHER ADMINISTRATIVE STAFF

Administrative Services Director ........................................................................................................................................
Augustine Chavez
B.S., UC, Santa Clara; M.B.A., Drexel University

Bookstore Manager ....................................................................................................................................................
Maria Hyde
B.S., CSU, Sacramento

College Advancement Director ........................................................................................................................................
Kenneth Cooper
B.A., UC, Davis

Elk Grove Center Supervisor ..................................................................................................................................
Rebecca Halligan
B.S., UC, Davis; M.A., Pacific Oaks College

Public Information Officer .............................................................................................................................................
Kristie West
B.A., CSU, Sacramento; M.S., North Dakota State University
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Education and Experience</th>
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<tbody>
<tr>
<td>ABRAHAM, Lisa Dominguez</td>
<td>English</td>
<td>B.A., UC, Berkeley; M.A., CSU, Sacramento</td>
</tr>
<tr>
<td>ADKINS POGUE, Andrea</td>
<td>Public Services Librarian</td>
<td>B.A., University of New Mexico; M.L.I., San Jose State University</td>
</tr>
<tr>
<td>ALLEN, Allah-mi (2006)</td>
<td>Athletic Counselor</td>
<td>B.A., UC, Irvine; M.S., CSU, Dominguez Hills; Ed.D., University of Southern California</td>
</tr>
<tr>
<td>AVALOS, Amy M. (2003)</td>
<td>Cooperative Work Experience</td>
<td>A.S., Dixie College; B.S., Utah State University; M.S., CSU, Sacramento</td>
</tr>
<tr>
<td>BACA, Jorge</td>
<td>Mathematics</td>
<td>A.A., Santa Ana College; B.S., UC, Los Angeles; M.S., CSU, Long Beach</td>
</tr>
<tr>
<td>BARKLEY, Michelle P. (2003)</td>
<td>College Nurse</td>
<td>A.A., San Joaquin Delta College; B.S. San Diego State University; M.S., CSU, Sacramento</td>
</tr>
<tr>
<td>BIGGERT, Elizabeth V. (1975)</td>
<td>Counselor</td>
<td>B.A., Denison University; M.S., San Francisco State University</td>
</tr>
<tr>
<td>BILLS, Jena M. (2008)</td>
<td>Biology</td>
<td>B.S., UC, Santa Barbara; M.A., San Francisco State</td>
</tr>
<tr>
<td>BLOOMFIELD, Anthony G. (1998)</td>
<td>Head Men's Baseball Coach/Physical Education</td>
<td>B.A., University of Nevada; M.Ed., Azusa Pacific University</td>
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<tr>
<td>BOND, Emily F. (2009)</td>
<td>Public Services Librarian</td>
<td>B.A., CSU, Sacramento; MLIS, CSU, San Jose</td>
</tr>
</tbody>
</table>
BURNS, Cori B. (2003) ................................................................. Medical Assisting  
B.A., Humboldt State University

CALAMAR, Jeanne M. (1989) ................................................. Physical Education  
B.S., CSU, Hayward; M.S.S., United State Sports Academy

CARLSON, William Drew (2001) ....................................Automotive Mechanics Technology  
A.A., Modesto Jr. College; B.A., UC, Berkeley

CARMONA, Tamya R. (1999) .............................................. Biology  
B.S., CSU, Sacramento; M.S., University of Southern California

CARNEY, Michael J. (2002) ............................................. MESA/CCCP Coordinator  
B.A., UC, Berkeley; M.S., Stanford University

CARTER, Constance M. (2002) .......................................... English  
B.A., M.A., CSU, Sacramento

CARTER, Sandra K. (2000) ................................................ English as a Second Language  
B.A., T.C., CSU, San Bernardino; M.A., CSU, Sacramento

CASARENO, Alexander B. (2006) .................................. Reading  
B.A., San Francisco State University; M.A., Ph.D., UC, Berkeley

CHAPMAN, Gregory D. (2001) ........................................... Computer Information Science  
B.S., University of Oklahoma; M.S., UC, Berkeley

CODELLA, Kim C. (2003) .................................................... Humanities  
B.A., M.A., Ph.D., UC, Berkeley

COELHO, Sherie A. (2001) ................................................ English  
A.A., San Joaquin Delta College; B.A., UC, Davis, M.A.T.W., Humboldt State University

CONNALLY, Ryan M. (2002) ............................................. Construction  
A.S., Cosumnes River College; B.S., University of Oregon

COUGHRAN, Steven J. (2004) .................................................. Music  
B.A., M.M., CSU, Sacramento

CRANSTON, Monica L. (1982) ............................................ Counselor  
B.A., UC, Santa Barbara; M.A., San Jose State University

CROSIER, Scott J. (2006) ................................................ Geography/GIS  
B.A., M.A., UC, Santa Barbara

DEGN, Kathy F. (2004) ...................................................... EOPS Coordinator  
B.S., M.A., San Jose State University

DENEKE, Charles F. (2005) ................................................... Biology  
B.A., Hendrix College, Arkansas; M.S., Memphis State University;  
Ph.D., Pennsylvania State University

DO, Minhong T. (1999) .................................................. Vietnamese/English as a Second Language  
B.A., CSU, Fullerton; M.A., CSU, Sacramento

DOAN, Anna N. (1998) ..................................................... Counselor  
B.A., M.S., CSU, Sacramento

A.A., Cosumnes River College; B.A., M.A., CSU, Sacramento;  
Ed.D., Rossier School of Education
<table>
<thead>
<tr>
<th>Name</th>
<th>Degree Year</th>
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<tr>
<td>Duffy, Marjorie B.</td>
<td>2002</td>
<td>Computer Information Science</td>
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<tr>
<td>EDMAN, Jeanne L.</td>
<td>2001</td>
<td>Researcher/Psychology</td>
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<td>ELLIS, John D.</td>
<td>1983</td>
<td>Architecture</td>
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<td>EMETAROM, Chitoh M.</td>
<td>2007</td>
<td>Chemistry</td>
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<td>ERICKSON, Cindy Lee</td>
<td>1990</td>
<td>Mathematics</td>
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<td>ERICKSON, Kurt P.</td>
<td>2008</td>
<td>Music</td>
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<tr>
<td>FAGIN, Edwin D.</td>
<td>2008</td>
<td>Economics</td>
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<tr>
<td>FARLEY, Rhonda J.</td>
<td>1990</td>
<td>English as a Second Language</td>
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<td>FEINDERT, Kerstin</td>
<td>2010</td>
<td>English</td>
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<tr>
<td>FELKNER, Patty A.</td>
<td>1991</td>
<td>Photography</td>
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<td>FISHMAN, Wendell S.</td>
<td>2000</td>
<td>Computer Information Science</td>
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<td>FONG, Hoyt S.</td>
<td>1980</td>
<td>Counselor</td>
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<tr>
<td>FORD, Mark A.</td>
<td>2001</td>
<td>Public Services/Information Resources Librarian</td>
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<td>FORTIN, Cheri L.</td>
<td>2006</td>
<td>Theatre Arts</td>
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<tr>
<td>FOWLER, Lynn M.</td>
<td>2004</td>
<td>Counselor / Articulation Officer</td>
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<tr>
<td>FRANCISCO, Jennifer</td>
<td>2002</td>
<td>English as a Second Language</td>
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<td>FRAZEE, James C.</td>
<td>2009</td>
<td>Psychology</td>
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<tr>
<td>GALE, Lesley D.</td>
<td>2000</td>
<td>English</td>
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<td>GAMBLE, Balbina P.</td>
<td>1997</td>
<td>Counselor</td>
</tr>
</tbody>
</table>
GARCIA-GOMEZ, Yolanda (2009)  ................................................................. DSPS Coordinator/Counselor
B.S., CSU, San Luis Obispo; M.Ed., University of Illinois

GEE, Joseph (2008) ............................................................................................ Pharmacy Technology
A.A., City College of San Francisco; B.A., UC Berkeley College of Letters & Science;
Pharmacy Degree, UCSF School of Pharmacy

GEISSLER, Markus (1998) .................................................................................... Computer Information Science
A.A., DeAnza College; M.B.A., CSU, Sacramento; Ph.D., Capella University

GEORGE, Nyenbeku C. (2008) ................................................................. Sociology
A.A., Cosumnes River College; B.A., M.A., CSU, Sacramento

GIACOMAZZI, James A. (2004) ............................................................... Head Men's Basketball Coach/Physical Education
B.A., UC, Riverside; M.A., San Jose State University

GIEDD, Shihni (2001) ........................................................................................... Reading
B.S., Christ's College; M.S. Southwest Missouri State University

GILL, Blanca T. (2001) ...................................................................................... Spanish
B.A., M.A., CSU, Sacramento

GORMAN, Gabriel D. (2008) ................................................................. History
A.A., American River College; B.A., M.A., CSU, Sacramento

GRANQUIST, Eric A. (2005) ................................................................................ Real Estate/Business
B.S., J.D., University of Oregon

GULATI, Rubina (2001) ...................................................................................... Journalism/Communication
A.A., Cosumnes River College; B.A., UC, Berkeley, M.S., Columbia University

GUNTER, Minet D. (1997) .................................................................................. Head Women's Volleyball Coach/Physical Education
B.S., Oregon State University; M.A., St. Mary's College

HAGENBURGER, Timaree A. (2005) .................................................................. Nutrition
B.S., California Polytechnic University, San Luis Obispo; M.P.H., UC, Los Angeles

HAMILTON, Scott W. (2005) ............................................................................... DSPS Counselor
B.A., CSU, Chico; M.A., CSU Sacramento

HANNAN, Everett J. (1971) .............................................................................. Psychology
B.A., M.A., Chico State College; Ed.D., University of Southern California

HANSEN, Priscilla S. (2003) ............................................................................... English
A.A., American River College; B.A., M.A., CSU, Sacramento

B.S., M.S., Western Oregon University

B.A., M.A., CSU, Sacramento; Ed.D., Argosy University, San Francisco

HENDRIX, Leo Ralph (1990) ............................................................................ Counselor
A.A., Yuba College; A.B., CSU, Humboldt; M.S., University of La Verne

HODGKINSON, Georgine R. (1997) ................................................................ Communication Studies
MA, CSU, Sacramento

HOM, Norman L. (2001) .................................................................................. English
B.A., UC, Davis; M.A., Brown 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

HUFFMAN, Elizabeth (2010) ............................................................ Political Science
B.A., Bucknell University; M.A., Louisiana State University; Ph.D., Emory University

HUNTER, Mark A. (1999) ................................................................. Mathematics
A.A., Cosumnes River College; B.A., St. Martin’s College; M.S., Western Washington University

HUTCHESON, Heather L. (2006) ...................................................... English
B.A., UC, Davis; M.A., CSU, Sacramento

IMPINNA, Christopher R. (2005) ................................................ Veterinary Technology
B.S., D.V.M., UC, Davis

JACKSON, Hiram S. (2000) ............................................................. GIS/Geography/Earth Science
B.S., Texas Christian University; Cert. of Studies, University of Chile; M.S., UC, Davis

KAGAN, Alexander (2008) ............................................................. Counselor
M.A., National University

KIMBLER, Jeffrey G. (2009) ............................................................. Art
A.A., Allan Hancock College; B.A., M.F.A., Arizona State University

KIRKHAM, William T. (1994) ......................................................... Architectural Design Technology
A.S., Laney College; B.A., CSU, Chico; M.A., San Jose State University

LaDUE, Cheri L. (1989) ................................................................. Physical Education
B.S., M.S., Baylor University

LaNIER, Winnie M. (2002) ............................................................. Campus Life Coordinator
B.S., California Polytechnic University, San Luis Obispo, Ph.D., University of La Verne

LAWLOR, Michael J. (1992) ........................................................... Physics
A.S., Antelope Valley Community College; B.S., UC, Irvine; M.S., CSU, Long Beach

LE, Phuong M. (2013) ................................................................. Mathematics
M.A., CSU, Sacramento

LEE, Mark S. (2007) ................................................................. Chemistry
A.A., Allan Hancock College; A.B., UC, Berkeley; Ph.D., UC, Davis

LEUNG, Amy (2013) ................................................................. Economics
M.A., UC, Merced

LEWIS, Howard G., Jr. (2000) .................................................... Agriculture Business
A.A., Reedley Community College; B.S., M.A., California Polytechnic University, San Luis Obispo

LEWIS, Melanie A. (1999) ............................................................ English
B.A., UC, Berkeley; M.A., Simmons College; Ed.D., University of San Francisco

A.A., Hartnell College; M.S., San Francisco State University; Ph.D., UC, Davis
LUGO, Donnisha (2013) ................................................................. Sociology
M.A., CSU, Sacramento

A.S., Modesto Junior College; B.A., CSU, Stanislaus; M.A., CSU, Sacramento

MAPESO, Ray C. (2000) ......................................................... Counselor
B.A., M.S., CSU, Sacramento; Ed.D, UC Davis

A.A., American River College; B.A., CSU, Sacramento; M.A., UC, Davis

MARSHALL-MILLS, Denise L. (2001) ................................... Counselor
B.A., CSU, Dominguez Hills; M.A., Loyola Marymount University

MARTIN, Mary S. (1990) ........................................................ Mathematics
A.A., Allan Hancock Jr. College; B.S., California Polytechnic University, San Luis Obispo;
M.S., Carnegie Mellon University

MATHIS, Jacqueline S. (2007) ................................................... EOPS Counselor
A.A., B.A., San Jose City College; M.S.W, San Jose State

McCLURG MacKINNON, Marlo K. (1987) ........................... English as a Second Language
B.A., M.A., San Francisco State University

McHUGH, Matthew E. (2005) .................................................... Emergency Medical Technology
A.A., Atlantic Community College; B.S., Widener University, Pennsylvania;
MICT Certificate, Kapiolani Community College, Hawaii

MILLER, Billie (1972) .............................................................. Business/Business Technology
A.A., Sacramento City College; B.S., M.A., CSU, Sacramento;
Ph.D., University of New Mexico, Albuquerque

MILLS, Shannon L. (2009) ....................................................... Anthropology
A.S., Sierra College; B.A., M.A., CSU, Sacramento

MOORE, Maureen G. (1999) ..................................................... Humanities
B.A., San Francisco State University; M.A., CSU, Sacramento

MORALES, Martin F. (2003) ..................................................... Political Science
B.A., M.A., San Francisco State University

MORENO, Camille N. (2001) .................................................. Mathematics
B.S., CSU, Chico; M.A., CSU, Sacramento

MORGAN-NANCE, Kathryn (2013) ......................................... Accounting
M.S., CSU, Sacramento

MUKANTABANA, Mathilde (1994) ............................................ History
B.A., University of Burundi; M.A., M.S.W., CSU, Sacramento

MUÑOZ, Heidi E. (2012) ........................................................ English
A.S., Sacramento City College; B.S., University of St. Francis; M.A., Ph.D., University of Nevada, Reno

A.S., Santa Rosa Jr. College; B.A., M.A., CSU, Sacramento
<table>
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<tr>
<th>Name</th>
<th>Degree(s)</th>
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<tr>
<td>NEFF, Eric S.</td>
<td>B.S., UC, Santa Barbara; Ph.D., UC, Davis</td>
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<td>NEWMAN, Jason C.</td>
<td>B.A., M.A., Ph.D., UC, Davis</td>
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<td>NGUYEN-VO, Loi</td>
<td>B.A., UC, Davis; M.A., CSU, Sacramento</td>
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<td>NOEL, Brian</td>
<td>A.A., Cosumnes River College</td>
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<td>OLIVER, Julie A.</td>
<td>B.A., UC, Davis; M.S., CSU, Sacramento</td>
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<td>OLSEN, Carol A.</td>
<td>A.A.S., Suffolk County Community College; B.S., SUNY, Albany; M.S., SUNY, Stony Brook</td>
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<td>OSMAN, Mohammed</td>
<td>B.E., Osmania University; M.S., Virginia Tech; M.B.A., UC, Davis</td>
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<td>PADILLA-ALVARADO, Sharon L.</td>
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<td>PANAGAKOS, H. Anastasia</td>
<td>B.A., UC, Davis; M.A., Ph.D., UC, Santa Barbara</td>
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<td>PARILO, Margaret S.</td>
<td>B.S., CSU, Sacramento; M.S., Golden Gate University</td>
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<td>PARKER, Grant A.</td>
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<td>PARKS, Lance M.</td>
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<td>PASKEY, Amanda M.</td>
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<td>PEREIRA, Michael J.</td>
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<td>PEREZ, Rochelle A.</td>
<td>B.S., University of the East; M.L.S., Emporia State University</td>
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<td>PHAN, Man</td>
<td>M.B.A., UC, San Diego</td>
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<tr>
<td>PLASCENCIA, Cesar</td>
<td>Head Women's Soccer Coach /Physical Education B.A., CSU, Sacramento; M.S., United States Sports Academy, Alabama</td>
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<tr>
<td>PREBLE, Ronald E.</td>
<td>Head Men's Soccer Coach/Physical Education B.S., CSU, Sacramento; M.S., United States Sports Academy</td>
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<td>QUIRARTE, Susan</td>
<td>B.A., M.S., CSU, Los Angeles</td>
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<td>REESE, Shawn</td>
<td>Ph.D., Brigham Young University</td>
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FACULTY & STAFF
2014–2015    Cosumnes River College

ROBERTS, Jason M. (2006) ............................................................ Welding
A.A., B.S., M.S., Cal Poly State University

ROESCHEN-BRADLEY, Renee A. (2007) ........................................... Health Information Technology
B.A., Chapman College

ROGAN, Patrick D. (2005) ............................................................... Accounting
B.A., CSU, Los Angeles; M.B.A., National University

ROGERS, Kevin M. (1990) ............................................................. Automotive Mechanics Technology
A.A., Butte College; B.S., CSU, Fresno

SAGE, Coral L. (2004) ................................................................. Head Women's Basketball Coach/Physical Education
A.A., Sierra College; B.S., UC, Riverside; M.S., Azusa Pacific University

SALMI, Andrea K. (1997) ............................................................... Biology
A.A., Pasadena City College; B.A., Humboldt State University;
M.S., UC, San Diego

SAMANIEGO, Celia S. (2002) ........................................................... Spanish
B.A., UC, Los Angeles; M.A. CSU, Sacramento

SCHROEDER, Kristy Howard (2011) ............................................. Physical Education/Head Women's Softball Coach
B.A., UC, Los Angeles; M.A., University of the Pacific

SCHUBERT, Richard C. (1999) ...................................................... Philosophy
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

SERTICH, Sangchen (2013) ............................................................ Mathematics
M.A., CSU, Sacramento

SHARKEY, Debra A. (1997) ........................................................ Geography
A.A., Central Oregon Community College; B.S., Southern Oregon State College; M.A., UC, Davis

SIGAUKE, Emmanuel (2006) ....................................................... English
B.A., University of Zimbabwe; M.A., CSU, Sacramento

A.A., Sacramento City College; A.S., Cosumnes River College;
B.S., UC, Davis; M.S. Stony Brook University

SMITH, Kathryn (2006) ............................................................... Music
B.M., M.M., University of the Pacific

SNOWDEN, Jr., Robert L. (2002) .................................................... Radio, Television & Film Production
B.A., San Jose State University; M.A., CSU, Sacramento, Ed.D., University of San Francisco

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
B.S., Texas A&M University; M.S., University of Phoenix

TORRES, Cynthia I. (1991) ................................................................. Culinary Arts Management
B.S., California Polytechnic University, Pomona; M.B.A., Golden Gate University; D.B.A., University of Phoenix

TORRES, Gabriel S. (2002) ................................................................. Spanish
B.A., M.A., UC, Davis

TRENT, Anna Kazdaglis (2008) ....................................................... Art History
B.A., M.A., Federal Institute of Technology, Zurich; M.A., UC, Davis

TRENT, Anna Kazdaglis (2008) ....................................................... Art History
B.A., M.A., Federal Institute of Technology, Zurich; M.A., UC, Davis

TRENT, Anna Kazdaglis (2008) ....................................................... Art History
B.A., M.A., Federal Institute of Technology, Zurich; M.A., UC, Davis

TRENT, Anna Kazdaglis (2008) ....................................................... Art History
B.A., M.A., Federal Institute of Technology, Zurich; M.A., UC, Davis

WAGNER, Christine R. (1987) ........................................................ Communication Studies
B.A., State University of New York at Buffalo; M.A., CSU, Sacramento

B.S., M.S., Michigan State University

WEATHERS-MIGUEL, Lee (2010) ...................................................... Counselor
B.S., University of San Francisco; M.S., CSU, Sacramento

WEINSHILBOUM, David H. (2007) .................................................. English
B.A., University of Wisconsin; M.F.A., Mills College; M.A., CSU, Sacramento

WEST, Jim D. (1989) ................................................................. Photography
A.A., Sacramento City College; B.A., UC, Davis

WILLIAMS-BRITO, Kimberly (2007) ................................................ Mathematics
B.A., M.A., San Francisco State University

B.A., TESL, UC, Irvine; M.A., CSU, Fullerton

WOODCOCK, Margaret A. (2000) ................................................... Art
B.A., CSU, Fresno; M.F.A., San Francisco Art Institute

YARBROUGH, Michael D. (2001) .................................................... Mathematics
B.S., Cal Poly; M.S., University of Arizona

ZENG, Min M. (2002) ................................................................. Mathematics
B.S., SW China Normal University; M.S., Western Illinois University;
Ph.D., University of Missouri-Columbia

ZISK, Paul (1997) ........................................................................ Sociology/Social Science/Anthropology
M.A. Northern Arizona University
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<td>AGUAYO, ALEJANDRA</td>
<td>Instructional Assistant</td>
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<td>AGUILAR, GILBERT</td>
<td>Clerk II</td>
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<td>AGUIRRE, MARIA</td>
<td>Student Personnel Assistant</td>
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<td>AKUTAGAWA, GLENN</td>
<td>Bookstore Stock Clerk</td>
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<td>ALVARADO, JANET</td>
<td>Financial Aid Officer</td>
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<td>AMINI, BANAFSHEH</td>
<td>Laboratory Technician</td>
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<td>ANDERSON, FRANCES</td>
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<td>ANDREWS, RICHARD</td>
<td>Records/Admissions Supervisor</td>
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<td>APEDAILE, LELAND</td>
<td>IT Assistant II</td>
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<td>ARAMBULA, ALVARO</td>
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<td>Admission / Records Evaluator II</td>
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<td>BARKLEY, EMILY</td>
<td>Student Personnel Assistant</td>
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<td>BITTNER, MICHAEL</td>
<td>Educational Media Design Specialist</td>
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<td>BLACKSHIRE, SHEVONNA</td>
<td>Clerk III</td>
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<td>BRAZIL, BRAD</td>
<td>Research Analyst</td>
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<td>BRYANT, SUZETTE</td>
<td>Counseling Clerk II</td>
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<td>BUCH, CHERYL</td>
<td>Animal Health Instr. Tech</td>
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<td>BURDOCK, ERICA</td>
<td>Clerk III</td>
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<td>BURKS, DUSTIN</td>
<td>Printing Services Operator II</td>
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<td>CALHOUN, RUBY</td>
<td>Instructional Assistant</td>
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<td>CAMPBELL, JOE</td>
<td>A/V Prod &amp; Maint Technician II</td>
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<td>CARTRIGHT, TONY</td>
<td>Custodial / Receiving Supervisor</td>
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<td>CASTELLON, YESENIA</td>
<td>Outreach Clerk, Elk Grove Center</td>
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<td>CHACON, JAQUELINE</td>
<td>Student Personnel Assistant, Elk Grove Center</td>
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<td>CHARRON, SHELLY</td>
<td>Counseling Clerk II</td>
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<td>CHASENGNOU, CHOU</td>
<td>Accountant</td>
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<td>CHEETHAM, MICHAEL</td>
<td>Maintenance Technician I</td>
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<td>CHEN, YU</td>
<td>Custodian</td>
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<td>CHEPURNOY, ANDREY</td>
<td>Senior IT Technician</td>
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<td>CLARK, TIFFANY</td>
<td>Outreach Specialist</td>
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<td>COLLINS, NATALIA</td>
<td>Laboratory Technician</td>
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<td>CORNELISON, JON</td>
<td>College IT Systems Supervisor</td>
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<td>CORONA-GOMEZ, MARTA</td>
<td>Senior IT Technician</td>
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<td>CORPUZ, MARYGRACE</td>
<td>Administrative Asst. I</td>
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<td>CORRIGAN, SUSAN</td>
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<td>DAVTIAN, ANNA</td>
<td>Student Personnel Assistant</td>
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<td>DE LA TORRE, GINA</td>
<td>Maintenance / Operations Clerk</td>
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<td>DELEON, KATHLEEN</td>
<td>Business Services Supervisor</td>
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<td>DEUTSCH, MICHAEL</td>
<td>Athletic Trainer</td>
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<td>DEUTSCHER, CATHY</td>
<td>Confidential Admin Asst. III</td>
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<td>DUSANOVIC, RUZA</td>
<td>Custodian</td>
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<td>EDMONSON, NANCY</td>
<td>Administrative Asst. II</td>
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<td>ELLIOTT, JULIE</td>
<td>Printing Services Operator III</td>
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<td>ELLIS, BRANDON</td>
<td>Instructional Assistant</td>
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<td>FOREMAN, AMBER</td>
<td>Graphic Designer</td>
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<td>FOX-SAILOR, MARGARET</td>
<td>Clerk III</td>
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<td>FRANCOIS, PAUL</td>
<td>Senior IT Technician</td>
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<td>FULK, DAVID</td>
<td>Theater Technician</td>
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<td>GEARY, PARRISH</td>
<td>Counseling Supervisor</td>
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<td>GONZALEZ, JESSIE</td>
<td>Laboratory Technician</td>
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<td>GREEN, BONNIE</td>
<td>Administrative Asst. I</td>
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<td>GREEN, DANIEL</td>
<td>Chief Broadcast Engineer</td>
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<td>GUIDI, SABRINA</td>
<td>Bookstore Assistant Manager</td>
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<td>HALL, JOSHUA</td>
<td>IT Assistant II - Microcomp Support</td>
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<td>HALLIGAN, REBECCA</td>
<td>Elk Grove Center Supervisor</td>
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<td>Laboratory Technician</td>
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<td>HIXON, TIMOTHY</td>
<td>IT Analyst I</td>
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<td>HOLLAND, BREANNE</td>
<td>Admissions/Records Evaluator II</td>
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<td>Lead Custodian</td>
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</table>
HYDE, MARIA  
Bookstore Manager

ILAGAN, CRISONIA  
Accountant

JUAREZ, BERNARDITA  
Custodian

KELILE, HIWOT  
Laboratory Technician

KEOONLA, VIRASANE  
Laboratory Technician

KIMURA, JUDY  
Conf Admin Asst I

KOLESNIK, NATALIYA  
Instructional Assistant

KOROLEV, VLADISLAV  
Custodian

KOSCHESKI, DONALD  
Laboratory Technician

KUMAR, MUNENDRA  
Receiving Clerk / Storekeeper

LARSEN, LIVIA  
Laboratory Technician

LAXA, CESAR  
Custodian

LEE, KA  
Financial Aid Clerk II

LE, PHUONG  
Financial Aid Officer

LEAL, CLAUDIA  
Administrative Asst. I

LEE, DEBORAH  
Administrative Asst. I

LEE, TCHONG  
Custodian

LEMUS, MIGUEL  
Grant Coordinating Clerk

LOVETT, JAMES  
A/V Prod & Maint Technician II

LOW, IAN  
Account Clerk III

LUCERORUIZ, YOLANDA  
Financial Aid Supervisor

LUSANAXAY, AKSONE  
Financial Aid Clerk II

MAHARAJ, RANESH  
Public Relations Technician

MAMUYAC, SALENA  
Student Services Supervisor

MARTINEZ, CHRISTINA  
Clerk II

MARTINEZ, SELENA  
Counseling Clerk II

MASSI, SHELLY  
Student Personnel Assistant

MEJIA, ALMA  
Administrative Asst. I

MEROUX, NORBERT  
Instructional Assistant

MIRANDA, BLANCA  
Admissions / Records Clerk III

MIRANDA, MEE  
Financial Aid Officer

MIYAGI, CHRISTY  
Clerk II

MONTANEZ, ROBIN  
Instructional Services Asst. II

MORGAN, ELAINE  
Library/Media T.A.

MURILLO, SHIRLEY  
Instructional Assistant

MYARTJR, JAMES  
Custodian

NAKANISHI, EUGENE  
Custodian

NEARY, JASON  
P.E. / Athletic Attendant

NEUHARTH, RAYMOND  
Instructional Assistant

NGUYEN, BAO  
Cook/Baker

NGUYEN, NAM  
Custodian

NGUYEN, NGOC  
Child Development Ctr Teacher

NGUYEN, SONORA  
Instructional Assistant

NGUYEN, TINA  
Conf Admin Asst I

NICOLOSI, LAURI  
Educational Media Design Specialist

NUSS, BARBARA  
Library/Media T.A.

OCRANT, CHRISTINA  
Educational Media & Web Design Spec.

OLSON, JULIE  
Student Personnel Assistant

ORAY, MYAISHA  
Account Clerk II

PANAG, JENNIFER  
Administrative Asst. I

PATTER, JENNIFER  
Student Personnel Assistant

PATTEN, CYNTHIA  
Instructional Assistant

PEREZ, MARIA DE JESUS  
Financial Aid Officer

PERRAULT, BARBARA  
Admin. Services Analyst

PETERS, JOEEN  
Child Dev Ctr Lead Teacher

PETTY, CYNTHIA  
Administrative Asst. I

PHU, MICHEL  
Financial Clerk II

POWNALL, LAURIE  
Library/Media T.A.

PRESSLEY, LINDA  
Child Dev Ctr Lead Teacher

QUIGLEY, NEAL  
Senior IT Support Specialist
<table>
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<td>REYNA, FRANK</td>
<td>Custodian</td>
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<td>RHODES, EVA</td>
<td>Administrative Asst. I</td>
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<td>ROCHA, LAURA</td>
<td>Head Custodian</td>
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<td>PE/Athletic Attendant</td>
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<td>Outreach Specialist</td>
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