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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.losrios.edu/catalog](http://www.crc.losrios.edu/catalog)
SUMMER SESSION 2019
Instruction begins for 1st Session ................................................................................................. June 10
Instruction begins for 8-Week / 2nd Session .................................................................................. June 17
Instruction begins for 6-week / 2nd session ..................................................................................... June 24
Last Day to Petition for August Graduation and Certificates ....................................................... June 28
End of 4-Week / 1st Session .............................................................................................................. July 4
Independence Day holiday ................................................................................................................. July 4
Instruction Begins - 4-Week / 2nd Session ....................................................................................... July 8
End of 6-Week / 1st Session .............................................................................................................. July 19
End of 8-Week 1st Session ................................................................................................................. August 2
End of 4-Week / 2nd Session .............................................................................................................. August 2
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Grades due ........................................................................................................................................... August 12

FALL SEMESTER 2019
Instructional Improvement Days for Faculty ................................................................................ August 22-23
Instruction begins ............................................................................................................................... August 24
Labor Day holiday ............................................................................................................................. September 2
Last Day to Petition for December Graduation and Certificates ................................................... October 4
Veterans Day holiday ......................................................................................................................... November 11
Last day to withdraw from full-semester classes ............................................................................ November 19
Thanksgiving holiday ......................................................................................................................... November 28–December 1
Semester ends ..................................................................................................................................... December 19
Winter recess ....................................................................................................................................... December 20–January 1
Grades due ........................................................................................................................................... January 3
Semester Break .................................................................................................................................... January 2-10

SPRING SEMESTER 2020
Instructional Improvement Days for Faculty ................................................................................ January 16-17
Instruction begins ............................................................................................................................... January 18
Dr. Martin Luther King’s Birthday holiday ....................................................................................... January 20
Lincoln’s Birthday holiday ................................................................................................................. February 14
Washington’s Birthday holiday ........................................................................................................ February 17
Last Day to Petition for May Graduation and Certificates .............................................................. March 6
Last day to withdraw from full-semester classes .............................................................................. April 19
Spring recess ....................................................................................................................................... April 6–12
Graduation / End of semester ........................................................................................................... May 20
Grades due ........................................................................................................................................... May 29
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.
Welcome to Cosumnes River College

You are one of approximately 14,000 students currently attending the main campus and the Elk Grove Center. Your decision to pursue a college education is an important goal and we are here to help you succeed.

This catalog includes information on how to enroll; detailed specifics on the college’s many programs, degrees and certificates; and general information regarding the support services offered. It is a road map for you to use in guiding your decisions while here at CRC.

Cosumnes River College is a comprehensive community college and is proud to serve the higher educational needs of residents in south Sacramento County, including the Elk Grove and Laguna areas. Our faculty, staff and managers are committed to academic excellence and helping you achieve your educational goals, whether they are transferring to a four-year college or university, obtaining an Associate’s degree or certificate, training to enhance employment, or building your skills in preparation for college level coursework.

Recently, the college developed several new Associate Degrees for Transfer (ADT). These degrees, including Business Administration, Communication Studies, Mathematics, Psychology and Sociology, are for students wishing to transfer to a California State University with a guaranteed maximum 60-unit requirement in various majors. You’ll find more information on these degrees in this catalog.

You’ll also find information on our comprehensive student services including Assessment, Counseling, Admissions and Records, and Financial Aid. These resources provide you with the information and support you need to succeed in the educational program of your choice.

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. Our Elk Grove Center offers general education classes to students wanting a smaller campus environment. The Winn Center for Construction and Architecture has become an icon of innovation and modernity, a place for students to learn in a unique environment. The college continues to improve its facilities, ensuring that you feel comfortable while you are here taking advantage of exceptional educational opportunities.

Use this catalog as a tool to help you succeed. Consider getting involved beyond the classroom; join a student organization and take advantage of the opportunities that await you. I wish you much success as you pursue your goal and thank you for choosing Cosumnes River College!

Dr. Edward Bush
President
Cosumnes River College
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.

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

**Snapshots of Student Demographics (Fall 2016 Census)**

- Enrollment at CRC was approximately 14283 students.
- CRC served a diverse community including many students of mixed heritage. The heritages of our student population included: 26.2% Hispanic/Latino(a), 23.5% White, 23.5% Asian, 11.7% African American, 6.5% Multi-Race, 4.9% Filipino, 1.8% Pacific Islander, 1.0% Unknown, 0.4% Other and 0.5% Native American.
- CRC served the younger as well as the older student with 62.3% of the student population under the age of 25 and 10.6% over the age of 39.
- The ratio of female to male students was approximately 54.1% female and 43.8% male.
- Approximately 32.6% of CRC students were first-generation college students.
- CRC students came from varied socioeconomic backgrounds with 33.5% of student reporting incomes considered below poverty and 31.2% of students reporting incomes that are considered middle income or higher.
- According to survey data, approximately 15% of CRC students do not identify themselves as heterosexual.
- Approximately 52.4% of CRC students attended classes only during the day and 13.6% attended classes only at night. A little over 22% of students took classes both during the day and evening and approximately 20.8% of CRC students took at least one online course.
- Most students attended part-time with approximately 23.2% taking fewer than 6 units and 42.6% enrolled in 6 to 11.9 units.
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 17). 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 9.

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:

Student Success and Support Program (SSSP)
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 23-24).

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 15).

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 19).

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 (CAAHEP) 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 or who are 18 years of age or older and capable of benefitting 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 food service 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. In 2013, the campus opened a 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. A new art gallery was dedicated in Fall 2014. Construction is almost completed for a new Light Rail and Bus Transfer Station on campus as Regional Transit expands its South Line to CRC.

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 localized 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 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.

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 CCD Training Source. Contract courses are scheduled at any time throughout the year and vary from a single workshop to a series of classes provided over a few weeks or months. The 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) 569-3230.

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

– Continued on next page –
• 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.
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Admission Requirements & Procedures

The admission process is designed to support student success. Participation in the process of assessment, orientation, counseling and student progress follow-up directly relates to a student’s achievement of their educational goals. Cosumnes River College is committed to providing a comprehensive array of support services to ensure every student has an opportunity to achieve academic success.

WHO IS ELIGIBLE TO APPLY FOR ENROLLMENT?

Cosumnes River College is open to all residents who are high school graduates or equivalent 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.

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/through their 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 68000-68030 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 P-48 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.

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.

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 - page 45)

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. 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. 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 (see page 18) 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 students with important information that aids in the transition to college. The online orientation can be found on our website at crc.losrios.edu/stepstosuccess.

As one of the mandates of Assembly Bill (AB 705) passed in Fall of 2017, CRC has updated the method for placing students in their first English or Math course and will now be using “Multiple Measures” such as a combination of high school course information, high school GPA, and assessment information. You will be automatically placed into English and math classes if you included all of the requested information about your high school records on your CCCApply application.*

You can find your placement results for English, English as a Second Language (ESL) and Math in your eServices account. Your placements are displayed in the “Assessment Placements” section.

* For those who have graduated high school more than 10 years ago or graduated high school in a foreign country, you will not receive an automatic placement. Please call the Assessment Center at (916) 691-7332 for further information.

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 counselor 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. Students who have met the California residency requirement are assessed. (Check Class Schedule for current fees.) Students eligible for a fee waiver and/or financial aid should apply for assistance as soon as possible.

The California Community College Board of Governors provides a waiver of fees for qualified students (see page 26 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 14 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 fees.)

- Undocumented and Non-resident 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. This fee waiver option is also available to U.S. citizens who do not qualify as California residents but meet the requirements of AB 540. Interested students should contact the Admissions Office to discuss eligibility. Qualifying students are still responsible for the per unit general enrollment fee.

**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 Class Schedule for current fees.)

**Instructional Material Fees**
Instructional material fees for designated courses may be assessed in accordance with Title V, 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 web site for more information on the various uses for the Student Access Card/UT Pass. ([www.crc.losrios.edu](http://www.crc.losrios.edu))

Check the Class Schedule for current fee.

The pass can be used 7 days a week, from June 1-July 31 for the Summer term and August 1-December 31 for the Fall term. Students who are enrolled in more than 3 units at any one of the Los Rios Colleges will be assessed a non-refundable fee of $8.40 (minimum), or $2.25 per unit up to 15 units, $33.75 (maximum). For example: a student enrolled in 3 units is not eligible for the transit pass (Fall/Spring), a student enrolled in 3.01 to 4 units will pay $8.40 a semester, a student enrolled in 12 units will pay $25.20 a semester, and a student enrolled in 15 or more units will pay the maximum fee of $33.75. Los Rios students who carry three or fewer units at each individual college location are not eligible for the Universal Transit Pass. However they will be eligible for a 50% discount on RT's regular monthly pass ($55 instead of $110 per month).

All students enrolled in the Summer session (any number of units) will be assessed a $10 fee for the Universal Transit Pass, for use from June 1 to July 31.

Visit website [www.losrios.edu/lrc/lrc_sainfo.php](http://www.losrios.edu/lrc/lrc_sainfo.php) for more information

**Parking Fees**
A valid parking permit is required 24 hours a day, seven days per week. Overnight parking is not permitted without written permission from the College. (Check Class Schedule for current fees.)

Parking permits may be prepaid when you submit your payment of registration fees in person, by mail or online. All prepaid parking decals will be mailed to the student, regardless of when payment is received in the Business Services (Cashier) Office, beginning fifteen (15) days prior to the start of the term or semester. The decal will be mailed to the address on file at the Admissions & Records Office. The prepaid parking decal application can be found at the back of this class schedule. (Be sure your address on file is current.)

IF PARKING FEES ARE NOT PREPAID, a decal may be purchased at the Business Services (Cashier) Office beginning fourteen (14) days prior to the start of the semester. You are encouraged to buy your parking pass early to avoid waiting in line!

In lieu of the permit, students wishing to park automobiles on campus may purchase a daily parking ticket for $2 from machines located in various parking lots. A daily parking ticket will be available only for automobiles - not motorcycles.

**Parking Permits may be purchased Online!**
Go to [www.crc.losrios.edu](http://www.crc.losrios.edu), log into eServices and click the link Purchase Parking Decals.

**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 trip fees may qualify to have their fees waived or may be given an alternate assignment, as appropriate.

**Student Representation Fee**
Under provision of California Education Code section 76060.5 and California Administrative Code sections 54801-54805, the students of this college have established a Student Representation Fee.

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

**Amount of Fee:** The student representation fee is one dollar ($1.00) per semester.

**Right to Request a Refund:** The fee is mandatory; however, a student has the right to request a refund for religious, political, moral or financial reasons. To request this refund, the student must fill out a form available in the Business Services (Cashier) Office.
IMPORTANT PAYMENT INFORMATION

Payment is due upon registration. You will be dropped for non-payment as follows:

- If you register prior to the start of the semester, your payment must be processed within 14 (fourteen) days of registration. Refer to the class schedule for due dates.

- If you register after the start of the semester, your payment is due immediately, or you will be dropped.

HOW TO PAY YOUR FEES

- For immediate credit, pay online using a credit card at http://www.losrios.edu/eservices.

- Mail or in-person payments are accepted with completed payment coupon and must be received by the Business Services (Cashier) Office no later than 14 calendar days following registration. Refer to the class schedule for due dates.

- You will not be invoiced for fees due. You may check your balance due online at http://www.losrios.edu/eservices.

- You may be eligible for a waiver of your enrollment fees. For more information, please see Page 2 of payment coupon, go online to http://www.losrios.edu/bogsteps, or visit the College Financial Aid Office.

PAYMENT ARRANGEMENTS

PAYMENT PLANS
Students requesting non-resident or international payment plans must make the request at the Business Services Office within the timelines listed under "Important Payment Information."

FEE WAIVERS, IF ELIGIBLE
Students must complete a Board of Governors Assistance Waiver (BOG) prior to registering for classes. The Financial Aid Office determines eligibility for the fee waiver. Applicants may be required to submit proof of income and/or legal residency.

Remember, your fee waiver must be processed and posted to your account within the timelines listed under “Important Payment Information.” Simply applying and being approved for a fee waiver is not enough.

SCHOLARSHIPS OR SPONSORSHIPS
After registering, students using scholarships or sponsorships must have documentation on file in the Business Services Office within the timelines listed under “Important Payment Information.” Students using State of California, Dept. of Rehabilitation, or Job Corps funds must submit a payment voucher or sponsorship letter to the Business Services Office within the timelines listed under “Important Payment Information” after registering.

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 refund to the credit card or a check will be mailed to eligible students approximately eight weeks after the refund application is submitted.

A student who must withdraw for military purposes shall be refunded 100% of fees and tuition paid, regardless of the date of withdrawal. Requests for refunds made after the end of the semester will be honored.

Application forms are available at the Business Services (Cashier) office. You may also submit your request for a fee refund by using our Online Fee Refund Application at http://www.losrios.edu/refundapp.htm

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/uac/american-opportunity-tax-credit OR http://www.losrios.edu/lrc/1098T.php
ENROLLMENT/TUITION FEE SCHEDULE

NOTE: At the time of this publication, fees were set at the levels stated here, but are subject to change pending Legislative action. Students will be billed for and are required to pay any increase in fees.

<table>
<thead>
<tr>
<th>Fees</th>
<th>Amount</th>
<th>Applies to</th>
<th>Exemptions/Waivers</th>
<th>Refund Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment fee</td>
<td>$46 per unit</td>
<td>All students</td>
<td>Eligible apprentice enrollees, BOG recipients, eligible veterans dependents</td>
<td>Refundable only if units dropped within appropriate time period - see Calendar (pg. 4)</td>
</tr>
<tr>
<td>Parking permit fee, automobile</td>
<td>$40 for fall semester $25 for summer term</td>
<td>All drivers</td>
<td>Non-drivers; reduced fee for BOGW recipients**</td>
<td>Refundable within appropriate time period- see Calendar (pg. 4)</td>
</tr>
<tr>
<td>Parking permit fee, motorcycle</td>
<td>$25 for fall semester $15 for summer term</td>
<td>All drivers</td>
<td>Non-drivers</td>
<td>Refundable within appropriate time period- see Calendar (pg. 4)</td>
</tr>
<tr>
<td>Daily parking fee</td>
<td>$2 a day</td>
<td>All drivers</td>
<td>Parking permit holders</td>
<td>None</td>
</tr>
<tr>
<td>Non-resident and International tuition</td>
<td>$296 per unit total ($234 non-resident, $16 capital outlay, $46 enrollment)</td>
<td>Non-resident and International students</td>
<td>Legal California and U.S. residents</td>
<td>Refundable if units dropped within appropriate time period - see Calendar (pg. 4)</td>
</tr>
<tr>
<td>International student application fee</td>
<td>$50 per application</td>
<td>Citizen and resident of foreign country</td>
<td>Legal U.S. residents and permanent residents</td>
<td>Non-refundable</td>
</tr>
<tr>
<td>UT Pass Fee - see website www.losrios.edu.lrc.lrc_sainfo.php</td>
<td>Summer: $10 (regardless of unit load) Fall: $2.10/unit when enrolled in more than 3 units, rounded to the next whole unit (minimum $8.40, maximum $31.50 for 15 units or more)</td>
<td>All students</td>
<td>N/A</td>
<td>Varies - see website <a href="http://www.losrios.edu">www.losrios.edu</a></td>
</tr>
<tr>
<td>Student Representation Fee</td>
<td>$1 per semester</td>
<td>All students</td>
<td>Refusal based on Moral, Religious, Political or Financial Grounds</td>
<td>Non-Refundable</td>
</tr>
</tbody>
</table>

** Fall BOG recipients pay $30 for auto parking permit. No reduced rate for summer term.

Enrollment fee refund policy

See the refund deadline dates on page 17. There is no refund for courses dropped after the deadlines. Refund eligibility is determined by the date the course is officially dropped, either in person or by using eServices. Requests for refunds must be filed by the last day of instruction in the semester or term for which the fee was paid, or they will be disallowed. Credit balances will be forfeited and do not carry over to the next semester/term.

To be eligible for an enrollment fee refund, you must first drop a class using eServices or by completing a drop form at Admissions by the refund deadline AND completing a request for a refund at Business Services by the end of the semester/term.

* See page 17 “Important Payment Information” for additional information

Refunds may also be requested online at www.crc.losrios.edu and click on “Fees & Payment”
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 Building (Room L106 C), 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) 689-2221 (24 hours).

**CAREER SERVICES**


**CHILD DEVELOPMENT CENTER**

The Child Development Center, located on the east side 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 program serves 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) 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 ARE REQUIRED FOR ALL RETURNS.

**COURSE BOOKS:**
- A refund will be given in the 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. (Proof of Enrollment may be required.)
- 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.”
- Special orders are not refundable.

**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.
- Books and merchandise must be returned to the place of purchase.

**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...
**While You Are Here**

**COLLEGE STORE - continued**

must be returned to the college store no later than Friday during the last week of finals.

- **Rental Fee Refund.** Rental Fee refunds will be granted up to the first Friday of Instruction or the second Friday with proof of 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 to 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 is responsible for any loss or theft of the rented materials. CDs 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 40% 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 and 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](http://www.crc.losrios.edu/CollegeStore).

**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](https://wexp.losrios.edu)

**COUNSELING**

Counselors are available throughout the year by 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, mental health, learning disabilities and other 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 BS104. For more information, call (916) 691-7275.

Physical and Mental Health Disabilities
Students with the following disabilities are eligible to receive support services and academic accommodations: hard of hearing and deaf, blind and low-vision, mobility impaired, mental health, and other health problems that would require academic adjustments, or auxiliary aids and services (accommodations).

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.

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 an audio recorder, calculator, computer, electronic 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, distraction reduced room, use of calculator, spelling checker, computer, alternative method of testing or modification of the test response format.

Students with verified disabilities who do not wish to avail themselves of the services of the Disability Support Programs and Services Office 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 instructional materials, or college publications and resources should check with the Disability Support Programs & Services office. Materials available include, but are not limited to, Braille, large print, audio books, 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.

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.

The student has a right to appeal any decision regarding academic accommodations. Contact the DSP&S Coordinator for more information.

EXTENDED OPPORTUNITY PROGRAMS AND SERVICES (EOP&S)

(See Student Support Center, page 23).

FINANCIAL AID SERVICES

The Financial Aid Office, located in the Library Building L107, and Financial Aid services are also available at the Elk Grove Center. For additional information, please refer to the “Financial Assistance” section of this catalog. (See page 26).

HAWK SPOT

Cosumnes River College’s Student Life & Leadership Center, in partnership with the Elk Grove Food Bank, offers access to emergency food supplies for students with inadequate food resources. The Hawk Spot is available to all current students who are enrolled in classes and have a valid student ID card. Completion of an intake form is required and visits to the Hawk Spot is limited to once per week. Students are asked to provide their own bag to transport food items. The Hawk Spot is located in T-111. For operating hours, please refer to www.crc.losrios.edu/services/food-pantry or call 691-7315.

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 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 for skin testing. The Health Services Office is located in the Operations and Public Safety Building. Phone: Health Office (916) 691-7584
**JOB INFORMATION**

The Los Rios Internships & Career Services (LINCS) 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 LINCS 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. The Library promotes the mission of the College by actively supporting the teaching, learning, research and information needs of diverse students, faculty, and staff through its collection, services, and instruction.

The Library gives students access to a collection of research resources including databases for periodical articles, ebooks, physical books and videos. Electronic resources are available 24/7 through the Library’s homepage at www.crc.losrios.edu/Library. In addition to the research collection, the Library also provides textbooks, computers, printers, copiers, group study rooms, silent study area, and much more!

One-on-one research assistance is available to students on a drop-in and appointment basis. The Library also offers online tutorials and research guides for self-guided learning about the selection and use of research resources.

**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 70, 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 Life and Leadership Center Office, located in Technology Building T108, offers a variety of ways for students to become involved:

General Information

Contributing to student life, the Student Life and Leadership Center (SLLC) provides a variety of opportunities to become involved in extra- and co-curricular activities. SLLC is the student's connection to the Associated Students of CRC Student Clubs and Events Board, Student Ambassador Program and student clubs. SLLC offers leadership development courses whose units are CSU transferable and skill development workshops. SLLC is a place where leaders flourish. Make it part of your college experience. Visit www.crc.losrios.edu/StudentLife

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.

Associated Students of Cosumnes River College (ASCRC)

As a means to represent all enrolled students of Cosumnes River College the ASCRC has two major leadership components – the CRC Student Senate and the CRC Clubs and Events Board.

Through the CRC Student Senate, the student body participates in the College's shared governance process to inform decisions that have or will have a significant effect on students. The Student Senate also serves as the means through which students may be nominated to participate on College and/or District committees, task forces or other governance groups. The Student Senate shall advocate for the common interests of students at the local, state, and federal levels. The Student Senate is the only entity empowered to take positions on legislative issues within its purview under Los Rios Community College District Policies and Regulations.

The CRC Clubs and Events Board promotes the intellectual and social life of students at CRC through authorized club activities, by programming college-wide events, and bringing artists and speakers to the college. It also supports activities that recognize the cultural and ethnic diversity of the college community and fosters cultural awareness and understanding. The Clubs and Events Board strives to build a sense of unity between clubs.

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.

Student Support Services

The Student Support Center, located in the Library Building (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:

- Work Study Positions
- School Supplies
- Case Management Referrals
- Book Service
- Priority Registration
- 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 18 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

While You Are Here

2019–2020 Cosumnes River College
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)
- Quality 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 Building, 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](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**

(916) 691-7479

[www.crc.losrios.edu/Transfer](http://www.crc.losrios.edu/Transfer)

The Transfer Center provides a wide range of services for students planning to transfer to a 4-year college or university. Services include: research assistance in identifying potential transfer schools; weekly visits from university representatives; transfer admissions eligibility information and assistance with Transfer Admissions Guarantee applications for participating campuses of the UC (currently UC Davis, UC Irvine, UC Merced, UC Riverside, UC Santa Barbara, and UC Santa Cruz), or the University of the Pacific; transfer applications and personal statements workshops; access to reference books and college catalogs. In addition, the Transfer Center hosts the annual Transfer Day, which occurs in the fall semester; and sponsors tours of various 4-year university campuses. All services provided by the Transfer Center are open to all CRC students.

**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.

- **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 22)

• **MESA** *(916) 691-7338*
  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 22)

• **Reading/Writing Center** *(916) 691-7123*
  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** *(916) 691-7425*
  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. In addition, a 24/7 online tutoring service is also available for students through tutor.com. For details, please visit the Tutoring Center at CRC-216. Website at https://www.crc.losrios.edu/services/tutoring, or call the Center at (916) 691-7425.

**VETERANS ASSISTANCE**

CRC Veterans Services, 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 should contact the VA Office, for a variety of available support services. Military veterans are entitled to enrollment priority. If you are not receiving VA Educational benefits, contact Veteran Services directly.

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

• Request “official” transcripts from other colleges attended by the end of the first completed semester.
• 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.
• Notify Veteran Services of dropped and/or added courses.
• Submit assessment results, unless you have completed English/Math coursework at other colleges.

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 and the Counseling Department, taking a comprehensive approach to providing students with 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 academic success in a veteran focused environment at CRC. Services offered by the VRC include:

• Referrals for campus and community resources
• Computer access with internet connection and free printing (limits may apply)
• Assistance with completing the CRC enrollment process
• Support with VA Benefits processing
• A positive location to connect with other student veterans
• Personal counseling
• Academic counseling for VA educational plans and GI benefit compliance.
• Food Pantry support

The VRC is located in L-103. For more information call (916) 691-7455.
Cosumnes River College’s Financial Aid Office, located in the Library Building, 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), or California Dream Act application, each academic year. The applications are available on the Internet for those students who wish to apply for financial aid electronically.

- The FAFSA website address is: www.fafsa.ed.gov
- The school code for Cosumnes River College is: 007536
- The California Dream Act website is: www.csac.ca.gov/dream_act.asp

Cosumnes River College participates in the following programs:

**GRANTS**

**CCPG**  
(California College Promise Grant)

- **CCPG** is for California residents and AB 540 students only.
- **CCPG** does not require repayment.
- **CCPG** is a simple, quick process that is not connected to other Federal aid programs.
- **CCPG** 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.
- **CCPG** 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/CCPG_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 submit documentation from the public agency that employed the decedent.
  - **Method B:** If you meet household (low) income standards. Please see CRC Financial Aid website for income guidelines.
  - **Method C:** If you have been determined to have any financial need based on completion of the FAFSA.

### California College Promise Grant Changes

All grades will be used to determine CCPG eligibility. Any combination of two primary consecutive terms (Fall and Spring) of cumulative GPA below 2.0, and/or cumulative course completion less than 50% may result in loss of CCPG eligibility. You’ll be notified within 30 days of the end of each term if you are being placed on either Academic (GPA) and/or Progress (Course Completion) probation. Your notification will include the information that a second term of probation will result in loss of fee waiver eligibility. After the second consecutive term of probation, you may lose eligibility for the fee waiver at your next registration opportunity.

#### How to regain eligibility:

If you lose eligibility for the CCPG, there are a few ways that you can have it reinstated:

- Improve your GPA or Course Completion measures to meet the academic and progress standards
- Successful appeal regarding extenuating circumstances
- Not attending college in the district for two consecutive primary terms

The appeals process for extenuating circumstances includes:

- Verified accidents, illness or other circumstances beyond your control
- Changes in economic situation
- Evidence of inability to obtain essential support services
- Special consideration factors for CalWORKs, EOPS, DSPS and veteran students
- Disability accommodations not received in a timely manner

Please note that foster youth and former foster youth (age 24 years and younger) are not subject to loss of the CCPG under these regulations.

### CAL GRANTS

The Free Application for Federal Student Aid (FAFSA), or California Dream Act application, 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.

**Continued on next page**
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 sent 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 Master Promissory Note
- 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: A students’ academic progress is monitored annually to determine financial aid eligibility. The Financial Aid Office may deny aid to any student who fails to meet the minimum stated academic progress guidelines.

**Satisfactory Academic Progress Policy:**
The US Department of Education requires funds to only be awarded 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](http://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.)

- Completed a Bachelor degree or higher (including a foreign degree) or attempted more than 150% of the units required for their degree or certificate program will be denied financial aid.

- Falsification of information that affects the determination of eligibility or aid.

- Failure to provide necessary verification/documentation of income and resources.

Students 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

Over 80 scholarships are given out annually by the CRC Foundation for continuing and transfer students. Some scholarships are based on financial need and some are academic focused. Students are required to complete the online application by March 6. Applications will be matched to all the scholarships for which applicants are qualified. All eligible applications are reviewed by the CRC Scholarship Committee.

Application Filing Dates for 2019-2020
Start: January 6
End: March 6

Generally, all applicants must meet the minimum requirements of having completed 6 units at CRC and being enrolled in 6 units for the spring semester. A minimum of one faculty or staff letter of recommendation is also required. Some scholarships will required a written essay. Students can receive assistance with their essays through CRC’s Tutoring Center located inside the Learning Resource Center room 215.
Scholarship checks are disbursed August 1–September 30, 2020.
For additional information on scholarships contact Liz Starbuck, Donor Relations Specialist at (916) 691-7320.
While You Are Here

2019–2020

CRC Graduation Requirements

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 use 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** – Completion of Cosumnes River College’s General Education pattern or completion and certification of the CSU GE Breadth pattern, or the IGETC pattern.

2. **Written Expression Competency** – Completion with a grade of ‘C’ or better in ENGWR 300, ENGWR 341, ENGWR 480, ESLW 340, HONOR 375, or BUS 310 or an equivalent course at an accredited college.

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 ECON 310, OR PSYC 330, 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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 310, 332</td>
<td>ARCH 310, 332</td>
</tr>
</tbody>
</table>

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

**a. English Composition (3 units minimum)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 310</td>
<td>BUS 310</td>
</tr>
<tr>
<td>ENGED 305</td>
<td>ENGED 305</td>
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<tr>
<td>ENGW 300, 341, 480</td>
<td>ENGW 300, 341, 480</td>
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<tr>
<td>ESLW 340</td>
<td>ESLW 340</td>
</tr>
<tr>
<td>HONOR 375</td>
<td>HONOR 375</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101, 301</td>
<td>ACCT 101, 301</td>
</tr>
<tr>
<td>CISP 300, 350, 360, 370, 400</td>
<td>CISP 300, 350, 360, 370, 400</td>
</tr>
<tr>
<td>COMM 301, 311, 315, 331, 361, 363</td>
<td>COMM 301, 311, 315, 331, 361, 363</td>
</tr>
<tr>
<td>ECON 310</td>
<td>ECON 310</td>
</tr>
<tr>
<td>ENGW 480</td>
<td>ENGW 480</td>
</tr>
<tr>
<td>ENGLT 303, 310, 311, 320, 321, 330, 336#, 340#, 341, 343#, 345#, 360#, 370, 488, 489; GEOG 481; HIST 364*, 365*; HONOR 350, 352, 378*; HUM 300, 301, 310, 320, 324#, 331#, 332#; MUFHL 300, 308, 310, 311, 315, 320, 324#, MUP 357, 358, 360, 362; MUSSM 334, 370; PHIL 304#, 310, 330, 331, 338, 350, 352#, 356; PHOTO 301, 302, 420; RTVF 302, 305, 368; SPAN 101, 102, 401, 402, 411, 412, 413, 415, 425, 426, 427; TA 300, 302, 303, 306#, 350, 401; VIET 401, 402, 411, 412</td>
<td></td>
</tr>
</tbody>
</table>

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 -
### 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
- BIOC 100, 102, 300, 307, 308, 310, 342, 350, 352, 400, 410, 420, 430, 440, 462, 485
- CHEM 305, 306, 309, 321, 400
- ENGR 304
- GEOG 300, 305, 306, 331
- GEOL 300, 305, 310, 330
- HONOR 385
- HORT 300, 302, 313
- PHYS 310, 350, 370, 411
- PLTS 300, 310
- PSYC 312

**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 310, 311, 314, 320, 321, 331, 371
  - HONOR 367
  - POLS 301, 481

- **b. One course from Other Social and Behavioral Sciences (3 units minimum)**
  - AGB 321
  - ANTH 303*, 310#, 313#, 316#, 323, 324#, 331#, 332#, 334#, 336#, 341, 374*
  - BUS 320, 330#, 345
  - COMM 325#
  - ECON 100, 300, 302, 304, 306, 320
  - ETHNS 300#, 320#, 330# & 340#
  - GEOG 302, 310#, 320#
  - HIST 301, 302, 307, 310#, 334#, 360, 364*, 366*, 370, 373, 380
  - HONOR 340
  - JOUR 310, 320#
  - KINES 416*, 460
  - PHIL 360
  - NUTRI 310
  - POLS 302, 304, 310, 312, 313, 314, 315, 317, 320
  - PSYC 300, 320, 340*, 368#
  - PSYC 371*
  - RVTF 300, 306
  - SOC 300, 301, 302, 309*, 321#, 341

* 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).

**VI: Ethnic/Multicultural Studies** – To include one course from the following (3 units minimum)

- ANTH 310, 313, 316, 324, 331, 332, 334, 336
- ARTH 324, 325, 328, 332
- BUS 330
- CAM 302#
- COMM 325
- DANCE 386
- ECE 430
- ENGLT 336, 340, 343, 345, 360
- ENGRD 200
- ETHNS 300, 320, 330, 340
- GEOG 310, 320, 322
- HIST 308, 344
- HUM 324, 331, 332
- JOUR 320
- MUFHL 330
- NUTRI 310
- PHIL 304, 352
- PSYC 368
- SOC 321
- TA 306

**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.

* 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).

## TABLE 3: ETHNIC/MULTICULTURAL STUDIES

**VI: Ethnic/Multicultural Studies** – To include one course from the following (3 units minimum)

- ANTH 310, 313, 316, 324, 331, 332, 334, 336
- ARTH 324, 325, 328, 332
- BUS 330
- CAM 302#
- COMM 325
- DANCE 386
- ECE 430
- ENGLT 336, 340, 343, 345, 360
- ENGRD 200
- ETHNS 300, 320, 330, 340
- GEOG 310, 320, 322
- HIST 308, 344
- HUM 324, 331, 332
- JOUR 320
- MUFHL 330
- NUTRI 310
- PHIL 304, 352
- PSYC 368
- SOC 321
- TA 306

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 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, CISC, CISP, COMM 311, 315, 363, ENGWR, ENCGW, 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.

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.

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.

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.

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 an 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 of 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.
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. Cosumnes River College offers distance education instruction in two modes:

- In the first mode, instruction takes place fully online through the use of materials and activities posted in a course site on the college’s learning management system.

- In the second mode, instruction takes place partially online through the use of materials and activities posted in a course site on the college’s learning management system, though there will also be one or more scheduled meetings on campus or other designated locations. The class schedule indicates when and where those meetings occur, and they may be as frequently as weekly. Some partially online classes are called “hybrid” classes.

The schedule of classes provides important details for each distance education class.

HONORS PROGRAM

The Cosumnes River College Honors Program is designed specifically for academically accomplished students and for those students with the potential for high achievement. The program provides opportunities for intellectual growth, beyond those generally found in most undergraduate programs, through special Honors courses. 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 enhanced transfer and scholarship opportunities at select transfer colleges and universities.

Students interested in applying for admission to the Honors Program should contact the Honors Program Director (SOC 116) or the Vice President of Instruction and Student Learning (College Center) for application materials. For further information about the Honors Program, please see pg 260.

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 - pg. 4)

– Special Studies continued on next page –
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.

Cosumnes River College recognizes the benefits to be derived from travel/study tours and the educational value of on-site experiences in other areas of the world. Study abroad can be an enlightening, maturing, and life-changing experience. Students are challenged to re-examine themselves, their attitudes and their studies as they learn to understand new and different cultures. All studies are conducted in English and typical of regular academic programs taught on the CRC campus, yet utilize travel/field trips, cross-cultural experiences and foreign resources.

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 semester and during the summer. Classes are taught in English by community college faculty from Los Rios and other NCSAC members, 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.
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 Exam</th>
<th>Score</th>
<th>CRC Course</th>
<th>CRC GE Area</th>
<th>Units</th>
<th>Score</th>
<th>CRC GE Area</th>
<th>Sem Units for GE Cert</th>
<th>CSU Sem Credit</th>
<th>Score</th>
<th>IGETC Area</th>
<th>Sem Units</th>
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<td>B2 &amp; B3 (lab)</td>
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<td>6</td>
<td>3, 4, 5</td>
<td>5B w/lab</td>
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<tr>
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<td>MATH 341</td>
<td>III(b)</td>
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<td>3, 4, 5</td>
<td>B4</td>
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<td>3</td>
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<td>3B &amp; 6A</td>
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<td>V(b)</td>
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<td>D</td>
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<td>A2 &amp; C2</td>
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<td>3</td>
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<td>D</td>
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<td>C2</td>
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<td>IV</td>
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<td>B1 &amp; B3 (lab)</td>
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<td>Code</td>
<td>Area(s)</td>
<td>Units</td>
<td>Minimum Units Required</td>
<td>Notes</td>
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<td>PHYS 421</td>
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<td>B1 &amp; B3 (lab)</td>
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<td>I</td>
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<td>C2</td>
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<td>4 &amp; US 2+</td>
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<td>3, 4, 5</td>
<td>D &amp; US 1+</td>
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<td>6</td>
<td>3, 4, 5</td>
<td>3B or 4 &amp; US 1+</td>
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<td>3, 4, 5</td>
<td>3B or 4</td>
<td>3</td>
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# If a student passes more than one AP exam in calculus or computer science, only one examination may be applied to the baccalaureate at a CSU Campus.

* Exam meets IGETC science course & lab requirement but only grants 3 units towards the IGETC. Students may need to complete additional coursework to meet the minimum 7 units in IGETC area 5.

** If a student passes more than one AP exam in Physics, only 6 units total may be applied to the baccalaureate, and only 4 units total may be applied to the certification of GE Breadth at a CSU campus.

+ Student needs to complete a course which covers California State and Local Government in order to complete CSU American Institutions graduation 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>
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<th>IB TEST</th>
<th>CRC GE Area</th>
<th>Units</th>
<th>CRC</th>
<th>CSU GE Breadth Certification*</th>
<th>IGETC Certification</th>
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<td>5</td>
<td>B2</td>
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<td>Chemistry HL</td>
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<td>3</td>
<td>5</td>
<td>B1</td>
<td></td>
</tr>
<tr>
<td>Economics HL</td>
<td>Social and Behavioral Sciences (Vb)</td>
<td>3</td>
<td>5</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Geography (any region) HL</td>
<td>Social and Behavioral Sciences (Vb)</td>
<td>3</td>
<td>5</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>History (any region) HL</td>
<td>Social and Behavioral Sciences (Vb) or Humanities (I)</td>
<td>3</td>
<td>5</td>
<td>D OR C2**</td>
<td></td>
</tr>
<tr>
<td>Language A: Literature (Any language except English) HL</td>
<td>Humanities (I)</td>
<td>3</td>
<td>4</td>
<td>C2</td>
<td></td>
</tr>
<tr>
<td>Language A: Language and Literature (any language except English) HL</td>
<td>Humanities (I)</td>
<td>3</td>
<td>4</td>
<td>C2</td>
<td></td>
</tr>
<tr>
<td>Language A1 (any language) HL ***</td>
<td>Humanities (I)</td>
<td>3</td>
<td>4</td>
<td>C2</td>
<td></td>
</tr>
<tr>
<td>Language A2 (any language) HL ***</td>
<td>Humanities (I)</td>
<td>3</td>
<td>4</td>
<td>C2</td>
<td></td>
</tr>
<tr>
<td>Language B (any language) HL</td>
<td>N/A</td>
<td>N/A</td>
<td>4</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Mathematics: Mathematics HL</td>
<td>Language and Rationality (Ilb)</td>
<td>3</td>
<td>4</td>
<td>B4</td>
<td></td>
</tr>
<tr>
<td>Physics HL</td>
<td>Natural Science (IV)</td>
<td>3</td>
<td>5</td>
<td>B1</td>
<td></td>
</tr>
<tr>
<td>Psychology HL</td>
<td>Social and Behavioral Sciences (Vb)</td>
<td>3</td>
<td>5</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Theatre HL</td>
<td>Humanities (I)</td>
<td>3</td>
<td>4</td>
<td>C1</td>
<td></td>
</tr>
</tbody>
</table>

* These units are counted for eligibility for admissions to the CSU, and should not be confused with the unit values applied toward GE Certification.

** 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.
While You Are Here

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 EXAM</th>
<th>COSUMNES RIVER COLLEGE</th>
<th>CSU and GE CERTIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Passing Score</td>
<td>CRC GE Area</td>
</tr>
<tr>
<td>American Government</td>
<td>50</td>
<td>Social and Behavioral Sciences (Va)</td>
</tr>
<tr>
<td>American Literature</td>
<td>50</td>
<td>Humanities (I)</td>
</tr>
<tr>
<td>Analyzing and Interpreting Literature</td>
<td>50</td>
<td>Humanities (I)</td>
</tr>
<tr>
<td>Biology</td>
<td>50</td>
<td>Natural Sciences (IV)</td>
</tr>
<tr>
<td>Calculus</td>
<td>50</td>
<td>Language and Rationality (IIb)</td>
</tr>
<tr>
<td>Chemistry</td>
<td>50</td>
<td>Natural Sciences (IV)</td>
</tr>
<tr>
<td>College Algebra</td>
<td>50</td>
<td>Language and Rationality (IIb)</td>
</tr>
<tr>
<td>College Algebra - Trigonometry</td>
<td>50</td>
<td>Language and Rationality (IIb)</td>
</tr>
<tr>
<td>English Literature</td>
<td>50</td>
<td>Humanities (I)</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>59</td>
<td>Humanities (I)</td>
</tr>
<tr>
<td>German Level I**</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>German Level II**</td>
<td>60</td>
<td>Humanities (I)</td>
</tr>
<tr>
<td>History, US I</td>
<td>50</td>
<td>Social and Behavioral Sciences (Va)</td>
</tr>
<tr>
<td>History, US II</td>
<td>50</td>
<td>Social and Behavioral Sciences (Va)</td>
</tr>
<tr>
<td>Human Growth &amp; Development</td>
<td>50</td>
<td>III(b)</td>
</tr>
<tr>
<td>Humanities</td>
<td>50</td>
<td>Humanities (I)</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>Introductory Psychology</td>
<td>50</td>
<td>Social and Behavioral Sciences (Vb)</td>
</tr>
<tr>
<td>Introductory Sociology</td>
<td>50</td>
<td>Social and Behavioral Sciences (Vb)</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>50</td>
<td>Natural Sciences (IV)</td>
</tr>
</tbody>
</table>
** If a student passes more than one CLEP examination 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 examination in a language other than English, a passing score of 50 is considered “Level I” and earns six units of credit towards the baccalaureate (BA or BS); the higher score listed for each test is considered “Level II” credit and earns additional units of credit and placement in Area C2 of GE Breadth, as noted.

** 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.
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 63-398 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 63-398 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.

COMMENCEMENT EXERCISES

All students expecting to graduate must complete a petition for graduation. Graduation petitions are online at http://www.crc.losrios.edu/Student_Services/Admissions/Graduation_and_Commencement.htm. Students with questions regarding graduating eligibility must first meet with a counselor.

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

CATALOG RIGHTS REGARDING GRADUATION

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

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

Although equivalent coursework at other regionally accredited colleges and universities might apply toward a degree or certificate, a grade of “C” or higher is required in each course leading to these awards.

A college may authorize or request substitution for discontinued courses. Students changing their major field of study may be required to complete those requirements in effect at the time of the change of major. Students must have attendance in at least one session (i.e. semester or summer session) in each calendar year. Absence for attendance at another accredited institution will not be considered an interruption in attendance.

Catalog Rights apply to degrees and certificates, but not to required pre- or co-requisites of a course. If a pre-requisite or a co-requisite is added as a requirement to take a course in a newer edition of the College Catalog, a student must take this new pre-requisite before or co-requisite with the course.
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:

- **A** - Excellent ........................................4 grade points per unit
- **B** - Good .............................................3 grade points per unit
- **C** - Satisfactory ...................................2 grade points per unit
- **P** - Passing, less than satisfactory .................1 grade point per unit
- **F** - Failing ...........................................0 grade points, no units earned
- **NP** - No Pass ........................................Not computed in GPA, but affects progress, probation and dismissal
- **I** - Incomplete ......................................Not computed in GPA, but affects progress, probation and dismissal
- **IP** - In Progress ....................................Course transcends semester limitation
- **W** - Withdrawal ...................................Not computed in GPA, but affects progress, probation and dismissal
- **MW** - Military Withdrawal .........................Not computed in GPA and does not affect progress, probation and dismissal

“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 pg. 45.)

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.

GRADES OF “INCOMPLETE”

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

GRADES OF “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](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 record/transcript 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 at least 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 Ríos 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 Ríos colleges. If you took a course at any of the Los Ríos colleges – American River, Cosumnes River, Folsom Lake, or Sacramento City, this counts as one of your three attempts.

Repetible 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 Ríos 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 Ríos 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 Ríos 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.

**Computations:**

\[
\text{Grade Point Average} = \frac{\text{Total Grade Points Earned (divided by)}}{\text{Total Units Attempted with letter grade}}
\]

\[
\text{Progress Percentage} = \frac{\text{Total Units with “W”, “I”, “NC”, and “NP” (divided by)}}{\text{Total Units Enrolled}}
\]

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

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

FINAL EXAMINATIONS

The college requires final examinations in all courses. The college publishes a time schedule for final examinations 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, Academic 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 have achieved Academic Honors. If they earn a grade point average of 3.5 or better, they have achieved Highest Honors.

Students who earn Academic Honors and students who enter Cosumnes River College with exceptional high school transcripts may be eligible for admission to the college’s Honors Program. (For further information, see Honors Program section, page 260).

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. Degree-applicable coursework from CRC and other colleges is used to determine honors at graduation.

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 Student Discipline Officer.

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 Student Discipline Officer. 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 Student Discipline Officer 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 Student Discipline Officer.

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

7. The Office of the Student Discipline Officer 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 Student Discipline Officer, 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
  • Grievance processes
  • Student Disciplinary Appeal 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.
**LOS RIOS COMMUNITY COLLEGE DISTRICT NON-DISCRIMINATION POLICY**

It is the policy of the District to implement policies to guarantee that no qualified student or prospective student or any person having an educational relationship with the District shall be unlawfully discriminated against, harassed, or excluded from any benefits, activities, or programs on the grounds of one or more of the following actual or perceived characteristics, or due to the association with a person or group with one or more of the following actual or perceived characteristics: ethnic group identification, race, color, sex, gender, gender identity, gender expression, pregnancy or childbirth-related condition, sexual orientation, sexual identity, religion or religious creed, age (over forty), national origin, ancestry, physical or mental disability, medical condition, political affiliation or belief, military and veteran status, marital status, or conversing in a language other than English. However, students shall be required to speak English when the use of English is necessary for educational or communication purposes.

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) at (916) 691-7740; 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) 691-7738; 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: Inquires may be initiated by individuals who allege they have experienced discrimination as well as by other individuals or entities, such as a family member, representative, organization, or other third party wishing to file on behalf of an individual or group alleged to have suffered unlawful discrimination or harassment.

Any individual who believes that he/she has been discriminated against is encouraged to follow the complaint procedures as set forth in the Los Rios Community College District Regulation (R-2423). This regulation may be found at: [http://losrios.edu/legal/Regulations/R-2000/R-2423.pdf](http://losrios.edu/legal/Regulations/R-2000/R-2423.pdf).

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

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**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.

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**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.

**Student Rights under the Family Educational Rights and Privacy Act (FERPA).** Students have the right to:

- Inspect and review their own education records within a reasonable time after the College receives a request for access. If a student wants to review his or her record, they should contact the Vice President of Student Services for a petition. Education records include any item of information directly related to an identifiable student maintained by the District or College or required to be maintained by an employee in the performance of the employee’s duties, whether that information is recorded by handwriting, print, tapes, files, microfilm, electronically or other means. Education records do not include directory information, information provided by a student’s parent related to financial aid or scholarships, information prepared by and that remains in the sole possession of the person who created it; certain medical records, and decisions reached as a result of disciplinary hearings. Education records are maintained by the offices that generate or receive those records and the manager of those offices is responsible for the maintenance of those records. The Admissions and Records Office at each College maintains a log of those persons who have been given access to education records as required by FERPA.

- Request an amendment of their education record if a student believes it is inaccurate or misleading. If a student feels there is an error in his or her record, the student should submit a statement to the College official responsible for the record, clearly identifying the part of the record he or she wants changed and why he or she believes it is inaccurate or misleading. That office will notify the student of their decision and advise of any appropriate appeal rights.
• Consent to disclosure of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosure without consent. There are several exceptions which permit disclosure without consent, including but not limited to:

• Disclosure to school officials with “legitimate educational interests.” School officials are employees of the District and its colleges, agents with which the District or College has contracted with to provide services, the Board of Trustees; or students serving on a committee or assisting another school official in the performance of his or her tasks. A legitimate educational interest exists when the school official has a need to know the information in connection with his or her official duties.

• “Directory information.” Directory information is a student’s name, student identification number, 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 by the student. A student has the right to withhold the release of directory information. To do so, the student must complete a form, which is available from the Office of Admissions and Records. However, placing a “No Release” on a student’s records means that no one including friends, parents, prospective employers, honor societies or any other group or individual will be able to obtain this information.

• Disclosures to officials of another school, school system, or institution of postsecondary education where the student seeks or intends to enroll, or where the student is already enrolled so long as the disclosure is for the purpose related to the student’s enrollment or transfer.

• File a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. Further information about FERPA and student records can be found in the Los Rios Community College District Policy and Regulation 2265 and at the College office of the Vice President of Student Services.

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 Student Services. The grievance must contain a specific statement of the alleged act of wrong-doing, the name of the person against whom the grievance is filed, the names of any witnesses, and the nature of the relief sought 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 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 Student Services.
DRUG AND ALCOHOL FREE POLICY

In accordance with the requirements of the U.S. Drug Free Workplace Act of 1986, 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 policies 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.crc.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

Cosumnes River College is a smoke-free campus effective August 1, 2016. No smoking, vaping, or tobacco use is allowed anywhere on campus.

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.

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

SEXUAL HARASSMENT POLICY

Any student, faculty, or staff member who is a victim of, or is contacted regarding sexual assault or a threat of sexual assault at a college facility should notify the College Police at (916) 691-7777. Students and staff may work the WEAVE confidential advocate at CRC.

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 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). Complaints may also be initiated by other individuals or entities, such as a family member, representative, organization, or other third party wishing to file on behalf of an individual or group alleged to have suffered unlawful discrimination or harassment. Complainants are encouraged to use the official form provided by the Chancellor's office, however, that form is not required and complaints will not be considered defective or rejected if you do not use the form. 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, located in the Visual and Performing Arts Center (VPA) room 100 or by phone at (916) 691-7171.

Note: Inquiries may be initiated by individuals who allege they have experienced discrimination as well as by other individuals or entities, such as a family member, representative, organization, or other third party wishing to file on behalf of an individual or group alleged to have suffered unlawful discrimination or harassment.

Any individual who believes that he/she has been discriminated against is encouraged to follow the complaint procedures as set forth in the Los Rios Community College District Regulation (R-2423). This regulation may be found at: http://losrios.edu/legal/Regulations/R-2000/R-2423.pdf.

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.

College Equity Officer  
Brian Bedford  
VPA 100  
(916) 691-7171

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.

Disciplinary Officer  
Shannon Cooper  
Library Building  
(916) 691-7350

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.

Student Grievance Officer  
Yolanda Garcia  
OPS Building  
(916) 691-7333

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. Note: 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.

Sexual Harassment Officer  
Tadael Emiru  
LRC Building  
(916) 691-7740

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.

Title IX Coordinator  
Tadael Emiru  
LRC Building  
(916) 691-7487

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.
504 Coordinator  Shannon Cooper
Library Building  (916) 691-7350

Overssees 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.

Americans with Disabilities Act (ADA) Coordinators

Shannon Cooper (for students)  (916) 691-7350
Library Building

Theresa Tena (for faculty and staff)  (916) 691-7252
OPS Building

Claire Oliveros  (916) 691-7487
(for students with service animals)
OPS Building

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.

Note: 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.
TRANSFER INFORMATION
TRANSFER INFORMATION

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. Agriculture Business (AS-T)
2. Anthropology for Transfer (AA-T)
3. Art History for Transfer (AA-T)
4. Biology (AS-T)
5. Business Administration for Transfer (AS-T)
6. Communication Studies for Transfer (AA-T)
7. Early Childhood Education for Transfer (AS-T)
8. Economics for Transfer (AA-T)
9. Elementary Teacher Education for Transfer (AA-T)
10. English for Transfer (AA-T)
11. Film, Television and Electronic Media (AS-T)
12. Geography for Transfer (AA-T)
13. Geology for Transfer (AA-T)
14. History for Transfer (AA-T)
15. Journalism for Transfer (AA-T)
16. Kinesiology for Transfer (AA-T)
17. Mathematics for Transfer (AS-T)
18. Music for Transfer (AA-T)
19. Nutrition and Dietetics (AS-T)
20. Physics for Transfer (AS-T)
21. Psychology for Transfer (AA-T)
22. Sociology for Transfer (AA-T)
23. Spanish for Transfer (AA-T)
24. Studio Art for Transfer (AA-T)
25. 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; 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 must 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 students 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 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](http://www.crc.losrios.edu/Community/Articulation.htm). Click on “University Articulation Agreements.” Make sure you work with your counselor as you plan for transfer.
# California State Universities General Education Breadth Requirements

## 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:

<table>
<thead>
<tr>
<th>A1</th>
<th>Oral Communication</th>
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<tbody>
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<td>COMM 301, 331, 361</td>
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<tr>
<th>A2</th>
<th>Written Communication</th>
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<tr>
<th>A3</th>
<th>Critical Thinking</th>
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</thead>
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<td>COMM 311, 315; ENGRD 310, 311; ENGWIR 301, 302; HONOR 341; PHIL 300, 320, 325; SOC 305</td>
<td></td>
</tr>
</tbody>
</table>

## 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, as well as at least one course containing a laboratory activity from (B1) or (B2).

### 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

ECON 310; HONOR 393; MATH 300, 310, 335, 341, 343, 351, 355, 356, 370, 400, 401, 402, 410, 420; PSYC 330; STAT 300, 480

## 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, 324, 325, 328, 332, 333; DANCE 386; ENGLT 488; FMS 300, 305, 320; HONOR 378; MUFHL 300, 308, 310, 311, 315, 321, 330, 400, 416; MUNI 310, 311, 340, 341, 350, 351, 370, 371, 495; MUP 310, 320, 350, 357, 360; MUSM 370; PHOTO 301, 420; RTVF 305, 378; TA 300, 302, 303, 305, 306, 350, 356, 401 |

### C2. HUMANITIES (Literature, Philosophy, Foreign Language)

|  | ARTH 328, 333; DEAF 312, 354; ENGW 400, 410, 480; ENGLT 303, 310, 311, 320, 321, 330, 336, 340, 341, 343, 345, 360, 370, 402, 488; ENGW 301; FMS 488; HIST 364, 365, 380, 485; HMONG 401, 402; HONOR 350, 364, 366, 378; HUM 300, 301, 310, 320, 324, 331, 332; PHIL 300, 304, 310, 330, 331, 338, 350, 352, 356; SPAN 401, 402, 411, 412, 413, 415, 425, 426, 427; VIET 401, 402, 411, 412 |

## D. SOCIAL, POLITICAL AND ECONOMIC INSTITUTIONS AND BEHAVIOR, HISTORICAL BACKGROUND

Minimum of 9 units

|  | AGB 321; ANTH 310, 313, 316, 323, 324, 331, 332, 334, 336, 341, 374; BUS 330, 345; COMM 325, 341, 363, 480; DEAF 351; ECE 312, 314; ECOP 300, 302, 304, 306; GEOG 302, 310, 320, 322; HIST 301, 302, 307, 308, 310, 311, 314, 320, 321, 331, 344, 360, 364, 365, 370, 371, 373, 380, 485; HONOR 340, 366, 367; JOUR 310, 320; KINES 416; PHIL 360; POLS 301, 302, 304, 310, 311, 312, 313, 314, 315, 317, 318, 319, 320, 324, 380, 481; PSYC 300, 312, 320, 335, 340, 366, 371; RTVF 300; 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 324; FITNS 324; HCD 310; HEED 300, 350; HSER 302; INDIS 313, KINES 300, 301; NUTRI 300; PSYC 340, 356, 371; SOC 310 |

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

The Life-Long Understanding and Self-Development requirement may be fulfilled through Military Service Credit (Honorable Discharge) with minimum of one (1) year active duty service. Submit copy of DD214 to the Admissions Office.

## 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 310, 311, 320, 321, 331, or 371, **paired with** POLS 301
- OR
- B. One course from HIST 310 or 320, **paired with** one course from HIST 311, 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 2019–2020 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): ENGRWR 300, 480*, HONR 375

**AREA 1B: Critical Thinking - English Composition**
- (one course required): COMM 311, 315; ENGRWR 301, 302; HONR 341

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

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

| ECON 310; HONR 393, MATH 300, 341*, 350*, 351*, 355*, 356*, 370*, 400*, 401*, 402*, 410; PSYC 330*; STAT 300*, 480 |

**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, 328, 332, 333; DANCE 386; ENGLT 486; FMS 300, 303*, 320; HONR 376*; MUFHL 300*, 308, 310, 311, 315, 321*, 330, 400, 416; PHOTO 420; RTVF 305*; TA 300, 302, 303, 305, 306

**3B HUMANITIES**
- ARTH 328, 333; ENGLT 303, 310, 311, 320, 321, 330, 336, 340, 341, 343, 345, 360, 402, 488*; ENGRWR 301; FMS 488*; HIST 364, 365, 380, 485; HONR 350*, 364, 366, 378*; HUM 300, 301, 310, 320, 324, 331, 332; PHIL 300, 304, 310, 330, 331, 338, 350, 352, 356, 360; DEAF 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, 313, 316, 323, 324, 331, 332, 334, 336, 341, 374; BUS 345; COMM 325*, 480; DEAF 351; ECE 312*, 314*; ECON 300, 302, 304, 306; ETHNS 300, 320, 330, 340, 344; GEOG 302, 310, 320, 322; HIST 301, 302, 307, 308, 310, 311, 314*, 320*, 321*, 331*, 344, 360, 364, 365, 370, 371+, 373, 380, 485; HONR 340*, 366, 367; JOUR 310*, 320; POLS 301*, 302, 304, 310, 311, 312, 313, 314, 315, 317, 318, 319, 320, 324, 380, 481; PSYC 300, 320, 335, 340, 356, 368, 371; RTVF 300*; SOC 300, 301, 320, 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 300(L)*, 305(L)*, 306(L)*, 309(L), 321, 322(L), 400(L)*, 401(L)*, 420(L); GEOG 300, 301(L), 305, 306; GEOL 300*, 301(L)*, 305*, 306(L)*, 310*, 311(L)*, 330; HORT 302 (L)*, PHYS 300*, 350(L)*, 360(L)*, 370(L)*, 380(L)*, 411(L)*, 421(L)*, 431(L)*; PLTS 310(L)*

**5B. BIOLOGICAL SCIENCE**
- ANTH 300, 301(L), 303; BIOL 300*, 307(L), 310(L)*, 342, 352, 400(L), 410(L), 420(L), 430(L), 431(L), 440(L), 462*; 485; HONR 485; PSYC 312(L)

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 2019–2020 Catalog, but are subject to change. Contact or visit the CRC Counseling Center for updated information.
CRC Courses Acceptable At All University of California Campuses Systemwide Review

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.

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<thead>
<tr>
<th>Accounting</th>
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<td>(Core) CISC 310</td>
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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, 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

Economics (ECON)
No credit for ECON 300 if taken after ECON 302 or 304.
ECON 310, PSYC 330, & STAT 300 combined: Max credit 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, 320, 325, 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 310 and 320 combined: maximum transfer credit is one course
2. HIST 311 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”

Library
Library 318: maximum transfer credit, is one course

Math Courses (MATH)
1. MATH 350, 351, 355, 356, 400, 401, and 402 combined: maximum transfer credit of one series*
2. MATH 341, 350, 355 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 (PACT), 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, STAT 300, and ECON 310 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”

Statistics Courses (STAT)
STAT 300, PSYC 330, and ECON 310 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.
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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### CERTIFICATES OF ACHIEVEMENT (A) AND PROFICIENCY (P)

CRC offers a large number of Certificates of Achievement (A), which appear on a student’s official transcript, and a large number of Certificates of Proficiency (P), which do not appear on a student’s official transcript. 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 length certificate or degree.

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ACADEMIC PROGRAMS OF STUDY 2019–2020
Cosumnes River College

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.

<table>
<thead>
<tr>
<th>Numbering</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 99</td>
<td>Courses numbered 1 through 99 are credit courses that are considered developmental or basic skills and are not acceptable for the associate degree or transfer credit.</td>
</tr>
<tr>
<td>100 - 299</td>
<td>Courses numbered 100 through 299 are college level, generally nontransfer courses applicable to the associate degree and/or upgrading career Technical Education for working professionals.</td>
</tr>
<tr>
<td>300 - 499</td>
<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>
</tr>
</tbody>
</table>

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)

## A
- **ACCT**: Accounting
- **ADT**: Architectural Design Technology
- **AGB**: Agriculture Business
- **AH**: Allied Health
- **ANSC**: Animal Science
- **ANTH**: Anthropology
- **ARCH**: Architecture
- **ART**: Art
- **ARTH**: Art History
- **ARTNM**: Art New Media
- **ASTR**: Astronomy
- **B**: Biological Sciences
  - **BIO**
  - **BIT**: Building Inspection Technology
- **BUS**: Business
- **BUSTEC**: Business Technology

## B
- **CHEM**: Chemistry
- **COMM**: Communication Studies
- **CISA**: Computer Information Science - Applications
- **CISC**: Computer Information Science - Core
- **CISN**: Computer Information Science - Networking
- **CISP**: Computer Information Science - Programming
- **CISS**: Computer Information Science - Security
- **CISW**: Computer Information Science - Web
- **CMT**: Construction Management Technology
- **CAM**: Culinary Arts Management
- **CONST**: Construction

## D
- **DEAF**: Deaf Culture and American Sign Language Studies
- **ECCE**: Early Childhood Education
- **ECON**: Economics
- **EMT**: Emergency Medical Technology
- **ENGR**: Engineering
- **ENGWR**: English - Writing
- **ENGRD**: English - Reading
- **ENGL**: English - Literature
- **ENGOW**: English - Creative Writing
- **ENGED**: English - Education
- **ENGLB**: English - Laboratory
- **ESL**: English as a Second Language
- **ESLG**: English as a Second Language - Grammar
- **ESLL**: English as a Second Language - Listening
- **ESLP**: English as a Second Language - Pronunciation
- **ESLR**: English as a Second Language - Reading
- **ESLW**: English as a Second Language - Writing
- **ETHNS**: Ethnic Studies

## F
- **FCS**: Family & Consumer Science
- **FMS**: Film & Media Studies
- **FT**: Fire Technology

## G
- **GEOG**: Geography
- **GEOL**: Geology

## H
- **HRIT**: Health Information Technology
- **HEED**: Health Education
- **HIT**: Health Information Technology
- **HIST**: History
- **HMONG**: Hmong
- **HONOR**: Honors
- **HORT**: Horticulture
- **HCD**: Human/Career Development
- **HSER**: Human Services
- **HUM**: Humanities

## I
- **INDIS**: Interdisciplinary Studies

## J
- **JOUR**: Journalism

## K
- **Kinesiology:
  - **ADAPT**: Adapted Physical Education
  - **DANCE**: Dance
  - **FITNS**: Fitness
  - **KINES**: Kinesiology
  - **PACT**: Personal Activity
  - **SPORT**: Sports
  - **TMACT**: Team Activity

## L
- **LIBR**: Library

## M
- **MGMT**: Management
- **MKT**: Marketing
- **MATH**: Mathematics
- **MEDA**: Medical Assisting
- **MUFHL**: Music Fundamentals/History & Literature
- **MUJIV**: Music Instrumental/Voice Instruction
- **MUSP**: Music Performance
- **MUSM**: Music Specializations

## N
- **NUTRI**: Nutrition and Foods

## P
- **PHARM**: Pharmacy Technology
- **PHIL**: Philosophy
- **PHOTO**: Photography
- **PHYS**: Physics
- **PLTS**: Plant Science
- **POLS**: Political Science
- **PSYC**: Psychology
- **R**: Radiology
  - **RTVF**: Radio, Television and Film Production
  - **RE**: Real Estate

## S
- **SILA**: Sign Language Studies (now DEAF)
- **SJS**: Social Justice Studies
- **SOCSC**: Social Science
- **SOC**: Sociology
- **SONOG**: Diagnostic Medical Sonography
- **SPAN**: Spanish
- **STAT**: Statistics
- **SGVT**: Student Government

## T
- **TA**: Theatre Arts
- **TAP**: Theatre Arts Performance

## V
- **VT**: Veterinary Technology
- **VIET**: Vietnamese

## W
- **WELD**: Welding
- **WEXP**: Work Experience
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.

<table>
<thead>
<tr>
<th>Cross-Listed Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 485 = HONOR 385 Honors Seminar in Genetics</td>
</tr>
<tr>
<td>BUS 320 = ECON 320 Concepts in Personal Finance</td>
</tr>
<tr>
<td>CISC 302 = JOUR 330 Computer Familiarization</td>
</tr>
<tr>
<td>COMM 480 = HONOR 340 Honors Seminar: Political Campaign Communication</td>
</tr>
<tr>
<td>COMM 482 = HONOR 341 Honor Seminar: Persuasion within Social Issues</td>
</tr>
<tr>
<td>ECON 320 = BUS 320 Concepts in Personal Finance</td>
</tr>
<tr>
<td>ENGLT 488 = HONOR 378 Literature Adapted into Film</td>
</tr>
<tr>
<td>ENGRD 59 = ENGRW 58 Writing Development with Reading</td>
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<tr>
<td>ENGWR 58 = ENGRD 59 Reading Development with Writing</td>
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<tr>
<td>ENGWR 330 = JOUR 340 Writing for Publication</td>
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<tr>
<td>ENGWR 480 = HONOR 375 Honors College Composition</td>
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<tr>
<td>FMS 305 = RTVF 305 Film History</td>
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<tr>
<td>FMS 488 = HONOR 350 Honors Seminar: Introduction to Critical Theory</td>
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<tr>
<td>FMS 489 = HONOR 352 Honors Seminar: The Films of Alfred Hitchcock</td>
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<tr>
<td>HEED 350 = KINES 301 Personal Wellness</td>
</tr>
<tr>
<td>HIST 485 = HONOR 366 Honors Recent United States History</td>
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<tr>
<td>HONOR 340 = COMM 480 Honors Seminar: Political Campaign Communication</td>
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<tr>
<td>HONOR 366 = HIST 485 Honors Recent United States History</td>
</tr>
<tr>
<td>HONOR 367 = POLS 481 Honors Introduction to Government: United States</td>
</tr>
<tr>
<td>HONOR 375 = ENGWR 480 Honors College Composition</td>
</tr>
<tr>
<td>HONOR 378 = ENGLT 488 Literature Adapted into Film</td>
</tr>
<tr>
<td>HONOR 385 = BIOL 485 Honors Seminar in Genetics</td>
</tr>
<tr>
<td>HONOR 391 = MATH 483 Honors Seminar in Mathematics: Introduction to Mathematical Proof</td>
</tr>
<tr>
<td>HONOR 392 = MATH 484 Honors Seminar in Mathematics: Topics in Number Theory</td>
</tr>
<tr>
<td>HONOR 393 = STAT 480 Honors Introduction to Probability and Statistics</td>
</tr>
<tr>
<td>HORT 302 = PLTS 310 Soils, Soil Management, and Plant Nutrition</td>
</tr>
<tr>
<td>HORT 303 = PLTS 332 Integrated Pest Management</td>
</tr>
<tr>
<td>JOUR 310 = RTVF 300 Mass Media and Society</td>
</tr>
<tr>
<td>JOUR 330 = CISC 302 Computer Familiarization</td>
</tr>
<tr>
<td>JOUR 340 = ENGWR 330 Writing for Publication</td>
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<tr>
<td>KINES 301 = HEED 350 Personal Wellness</td>
</tr>
<tr>
<td>MATH 483 = HONOR 391 Honors Seminar in Mathematics: Introduction to Mathematical Proof</td>
</tr>
<tr>
<td>MATH 484 = HONOR 392 Honors Seminar in Mathematics: Topics in Number Theory</td>
</tr>
<tr>
<td>MKT 314 = RTVF 376 Advertising</td>
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<tr>
<td>PLTS 310 = HORT 302 Soils, Soil Management, and Plant Nutrition</td>
</tr>
<tr>
<td>PLTS 332 = HORT 303 Integrated Pest Management</td>
</tr>
<tr>
<td>POLS 481 = HONOR 367 Honors Introduction to Government: United States</td>
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<tr>
<td>RTVF 300 = JOUR 310 Mass Media and Society</td>
</tr>
<tr>
<td>RTVF 305 = FMS 305 Film History</td>
</tr>
<tr>
<td>RTVF 376 = MKT 314 Advertising</td>
</tr>
<tr>
<td>RTVF 378 = TA 356 Acting for the Camera / Acting for the Camera I</td>
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<tr>
<td>Course Code</td>
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<td>-------------</td>
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<tr>
<td>STAT 480</td>
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<tr>
<td>TA 356</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 302, Computer Keyboarding:**
   - BUSTEC 303, Computer Keyboard Formatting

2. **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.)*

3. **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.)*

4. **HONOR 341, Persuasion within Social Issues:**
   - COMM 315, Persuasion
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

ASSOCIATE DEGREE
A.A. in Accounting
CODE #1001

This program provides training for entry-level employment in private industry, 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.

DEGREE REQUIREMENTS .................................................... UNITS
ACCT 301 Financial Accounting ...................................... 4
ACCT 311 Managerial Accounting .................................. 4
ACCT 312 Computerized Accounting ............................. 3
or BUS 340 Business Law (3) .................................. 3
BUS 345 Law and Society (3) .................................. 3
ACCT 103 Intermediate Accounting - Part I ................. 4
ACCT 104 Intermediate Accounting - Part II ............... 4
ACCT 111 Cost Accounting ........................................ 3

A minimum of 4 units from the following:
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)

A minimum of 7 units from the following:
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)

TOTAL UNITS: ................................................................. 36

Associate Degree
The Accounting Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF ACHIEVEMENT
Accounting Clerk Certificate
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.

CERTIFICATE REQUIREMENTS ...........................................UNITS
ACCT 101 Fundamentals of College Accounting (3) .................. 3 - 4
or ACCT 301 Financial Accounting .................................... 4
ACCT 341 Computerized Accounting .................................. 3
CISA 315 Introduction to Electronic Spreadsheets ....................... 2
CISA 305 Beginning Word Processing .................................. 2
BUS 310 Business Communications (3) .............................. 3
or ENGWR 301 College Composition and Literature (3)
A minimum of 5 units from the following:
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: ........................................................................ 21 - 22

CERTIFICATE OF ACHIEVEMENT
Accounting, Advanced Certificate
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.

CERTIFICATE REQUIREMENTS ...........................................UNITS
ACCT 301 Financial Accounting ........................................... 4
ACCT 311 Managerial Accounting ......................................... 4
ACCT 341 Computerized Accounting ..................................... 3
BUS 340 Business Law (3) .................................................. 3
or BUS 345 Law and Society (3)
ACCT 103 Intermediate Accounting - Part I ........................... 4
ACCT 104 Intermediate Accounting - Part II ........................... 4
ACCT 111 Cost Accounting .................................................. 3
A minimum of 4 units from the following:
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:
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 160 Volunteer Income Tax Assistance ......................... 2
ACCT 341 Computerized Accounting ..................................... 3
BUS 340 Business Law (3) .................................................. 3
CISA 321 Intermediate Database Management (1)
TOTAL UNITS: ........................................................................ 22

CERTIFICATE OF ACHIEVEMENT
Accounting, Taxation Certificate
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.

CERTIFICATE REQUIREMENTS ...........................................UNITS
ACCT 301 Financial Accounting ........................................... 4
ACCT 341 Computerized 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
ACCT 107 Auditing .............................................................. 3
ACCT 111 Cost Accounting .................................................. 3
ACCT 341 Computerized Accounting ..................................... 3
BUS 340 Business Law (3) .................................................. 3
CISA 321 Intermediate Database Management (1)
TOTAL UNITS: ........................................................................ 22

CERTIFICATE OF ACHIEVEMENT
Accounting Certificate
CODE #1001

CERTIFICATE REQUIREMENTS ...........................................UNITS
ACCT 107 Auditing .............................................................. 3
ACCT 111 Cost Accounting .................................................. 3
ACCT 301 Financial Accounting ........................................... 4
ACCT 311 Managerial Accounting ......................................... 4
ACCT 341 Computerized Accounting ..................................... 3
BUS 340 Business Law (3) .................................................. 3
A minimum of 4 units from the following:
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:
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: ........................................................................ 36

1 Business 341 recommended for students intending to enter public accounting professions.
ACCOUNTING (ACCT)

ACCT 101
Fundamentals of College Accounting 3 Units
Hours: 54 hours LEC
Prerequisite: None.
General Education: AA/AS Area ll(b)
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
Hours: 72 hours LEC
Prerequisite: ACCT 301 with a grade of "C" or better
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
Hours: 72 hours LEC
Prerequisite: ACCT 103 with a grade of "C" or better
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
Hours: 54 hours LEC
Prerequisite: ACCT 301 with a grade of "C" or better
Advisory: ACCT 103
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 auditing occupations, as well as the legal liabilities of the auditor are discussed.

ACCT 111
Cost Accounting 3 Units
Hours: 54 hours LEC
Prerequisite: ACCT 301 with a grade of "C" or better
Advisory: ACCT 311
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ACCT 101
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
Hours: 72 hours LEC
Prerequisite: None.
Advisory: ACCT 101 and 301
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 (CRTP) in the state of California.

ACCT 128
Taxation of Corporations, Partnerships, Estates, and Trusts 4 Units
Hours: 72 hours LEC
Prerequisite: ACCT 125 with a grade of "C" or better
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
Hours: 54 hours LEC
Prerequisite: ACCT 301 with a grade of "C" or better
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
Hours: 24 hours LEC; 36 hours LAB
Prerequisite: None.
Advisory: ACCT 125
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 24 hours of IRS-approved training and passing the IRS individual income tax exam, the student volunteer will provide a minimum of 36 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
Hours: 24 hours LEC; 36 hours LAB
Prerequisite: ACCT 160 with a grade of “C” or better
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 24 hours of IRS-approved training and passing the IRS individual income tax exams, the student volunteer will provide a minimum of 36 hours of free tax assistance to community clients who meet the 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
Hours: 24 hours LEC; 36 hours LAB
Prerequisite: ACCT 161 with a grade of “C” or better
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 24 hours of IRS-approved training and passing the IRS individual income tax exams, the student volunteer will provide a minimum of 36 hours of free tax assistance to community clients who meet qualifying criteria for the service as set by the IRS.
This course covers tax law that pertains to military tax situations and situations involving rental properties and moving expenses. This level prepares the student to assist taxpayers not only across the full VITA spectrum but adds the additional assistance to military personnel and those taxpayers that own a rental property.

ACCT 295
Independent Studies in Accounting 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
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
Hours: 72 hours LEC
Prerequisite: None.
Advisory: ACCT 101, BUS 105, MATH 120, or MATH 125
Course Transferable to CSU; UC
General Education: AA/AS Area l(b)
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
Hours: 72 hours LEC
Prerequisite: ACCT 301 with a grade of “C” or better
Course Transferable to CSU; UC
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 3 Units
Hours: 54 hours LEC
Prerequisite: ACCT 101 or 301 with a grade of “C” or better
Advisory: CISC 302
Course Transferable to CSU
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
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
General Education: AA/AS Area III(b)
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

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

ASSOCIATE DEGREE
A.A. in Advertising/Public Relations
CODE #1056

DEGREE REQUIREMENTS ............................................. UNITS
CISC 302 Computer Familiarization (2) .......................... 2
or JOUR 330 Computer Familiarization (2)
RTVF 300 Mass Media and Society (3) .......................... 3
or JOUR 310 Mass Media and Society (3)
RTVF 330 Beginning Single Camera Production ........... 3
RTVF 376 Advertising (3) ........................................... 3
or MKT 314 Advertising (3)
RTVF 370 Broadcast Writing & Announcing ................. 3
JOUR 330 Newswriting and Reporting ......................... 3
JOUR 351 Public Relations Writing and
Media Techniques .................................................. 3
MKT 310 Selling Professionally ................................... 3
COMM 341 Organizational Communication .................. 3

A minimum of 6 units from the following:

RTVF 312 Beginning Radio Production (3)
RTVF 316 Introduction to Radio Workshop (3)
RTVF 331 Beginning Television Studio 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)
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)
COMM 301 Introduction to Public Speaking (3)
COMM 363 Introduction to Communication Theory (3)

Total Units: .......................................................... 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

Associate in Arts Degree
The Advertising/Public Relations Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
Agriculture
Agriculture, Food & Natural Resources

DEGREE
A.S.—General Agriculture

CERTIFICATE OF PROFICIENCY
General Agriculture
Plant-Based Nutrition and Sustainable 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
ASSOCIATE DEGREE
A.S. in General Agriculture
CODE #1483

DEGREE REQUIREMENTS ........................................... UNITS
AGB  310 Agriculture Computer Applications ................. 3¹
AGB  320 Agriculture Accounting .................................. 3
AGB  321 Agriculture Economics ................................ 3
AMT  306 Small Engine Repair ................................... 3
HORT 300 Introduction to Horticulture .......................... 3
PLTS 310 Soils, Soil Management, and Plant Nutrition (3) .... 3
or HORT 302 Soils, Soil Management, and Plant Nutrition (3)
ANSC 300 Introduction to Animal Science ...................... 3
PLTS 300 Introduction to Plant Science ........................ 3
WELD 100 Introduction to Welding ................................ 3
WEXP 498 Work Experience in (Subject) ........................ 1 - 4²
Subtotal Units: ....................................................... 28 - 31

Agriculture Business
AGB  300 Introduction to Agriculture Business .............. 3
AGB  330 Agriculture Sales and Communication ............. 3
AGB  331 Agriculture Marketing .................................. 3
Agriculture Business Units: ......................................... 9
Total Units: ............................................................ 37 - 40

Horticulture
HORT 305 Plant Identification-Fall Selections .................. 3
HORT 312 Plant Propagation ...................................... 3
Horticulture Units: ...................................................... 6
Total Units: .............................................................. 34 - 37

Landscape
HORT 320 Sustainable Landscape Construction .............. 3
HORT 324 Sustainable Landscape Maintenance .............. 3
Landscape Units: .......................................................... 6
Total Units: .............................................................. 34 - 37

Welding
WELD 110 Advanced Shielded Metal Arc Welding .......... 4
Welding Units: ............................................................ 4
Total Units: ............................................................... 32 - 35

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.

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

CERTIFICATE OF PROFICIENCY
General Agriculture Certificate
CODE #1483

CERTIFICATE REQUIREMENTS .................................. UNITS
AGB  300 Introduction to Agriculture Business .............. 3
AGB  310 Agriculture Computer Applications ................. 3
AGB  310 Agriculture Computer Applications ................. 3
PLTS 310 Soils, Soil Management, and Plant Nutrition (3)
or HORT 302 Soils, Soil Management, and Plant Nutrition (3)
ANSC 300 Introduction to Animal Science ...................... 3
PLTS 300 Introduction to Plant Science ......................... 3
Total Units: ............................................................... 15

CERTIFICATE OF PROFICIENCY
Plant-Based Nutrition and Sustainable Agriculture Certificate
CODE #2001

CERTIFICATE REQUIREMENTS .................................. UNITS
NUTRI 303 Plant-Based Nutrition ................................. 3
NUTRI 331 Plant-Based Food Principles and Preparation 3
HORT 313 Sustainable Agriculture ............................. 3
Total Units: ............................................................... 9
DEGREE
A.S. — Agriculture Business
A.S.-T — 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

ASSOCIATE DEGREES
A.S.-T. in Agricultural Business
CODE #2010

The Associate in Science in Agricultural Business for Transfer degree fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system, although not necessarily to a particular campus or major.

DEGREE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGB 321</td>
<td>Agriculture Economics</td>
<td>3</td>
</tr>
<tr>
<td>PLTS 310</td>
<td>Soils, Soil Management, and Plant Nutrition</td>
<td>3 - 5</td>
</tr>
<tr>
<td>or CHEM 300</td>
<td>Beginning Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>or CHEM 305</td>
<td>Introduction to Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>or CHEM 400</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>STAT 300</td>
<td>Introduction to Probability and Statistics</td>
<td>4</td>
</tr>
<tr>
<td>ECON 302</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 9 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGB 320</td>
<td>Agriculture Accounting</td>
<td>3</td>
</tr>
<tr>
<td>AGB 330</td>
<td>Agriculture Sales and Communication</td>
<td>3</td>
</tr>
<tr>
<td>AGB 310</td>
<td>Agriculture Computer Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 22 - 24

Associate Degree
The Associate in Science in A.S. for Transfer (AS-T) Agricultural Business for Transfer (AS-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

– Continued on next page –
A.S.-T – Agriculture Business continued

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, because many universities require more lower division courses than those in this degree. Even the CSU’s that accept this transfer degree may likely require more lower division courses to achieve the Bachelor degree. Specifically, courses in general chemistry, differential equations, linear algebra, and computer programming may better prepare the transfer student for courses to achieve the Bachelor degree. 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.

A.S. in Agriculture Business
CODE #1014

DEGREE REQUIREMENTS ...................................... 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 Soils, Soil Management, and Plant Nutrition (3) .... 3
or HORT 302 Soils, Soil Management, and Plant Nutrition (3) 3
ANSC 300 Introduction to Animal 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: .................................................................. 37

Associate Degree
The Agriculture Business Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Agriculture Business Certificate
CODE #1014

CERTIFICATE REQUIREMENTS .................................. 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 Soils, Soil Management, and Plant Nutrition (3) .... 3
or HORT 302 Soils, Soil Management, and Plant Nutrition (3) 3
ANSC 300 Introduction to Animal 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: .................................................................. 40

AGRICULTURE BUSINESS (AGB)

AGB 300
Introduction to Agriculture Business 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
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. (C-ID AG - AB 104)

AGB 310
Agriculture Computer Applications 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
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. (C-ID AG - AB 108L)

AGB 320
Agriculture Accounting 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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. (C-ID AG - AB 128)
AGB 321
Agriculture Economics 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D2
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. (C-ID AG - AB 124)

AGB 330
Agriculture Sales and Communication 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: COMM 301
Course Transferable to CSU
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. (C-ID AG - AB 124)

AGB 331
Agriculture Marketing 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
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
General Education: AA/AS Area III(b)
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

ALLIED HEALTH (AH)

AH 108
Introduction to Allied Health 1 Unit
Hours: 18 hours LEC
Prerequisite: None.
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
Hours: 54 hours LEC
Prerequisite: None.
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
Hours: 54 hours LEC
Prerequisite: None.
Corequisite: AH 110 and BIOL 102 (Corequisites may be taken previously. BIOL 100 or 430/431 are also acceptable)
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
Hours: 36 hours LEC
Prerequisite: None.
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
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

AH 498
Work Experience in Allied Health 1 - 4 Units
Hours: 60 - 300 hours LAB
Prerequisite: None.
Course Transferable to CSU
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in one of the allied health professions.
General Education: AA/AS Area III(b) (effective Summer 2019)
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.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

ASSOCIATE DEGREE
A.S. in 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.

Degree Requirements .............................................................. 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) ..................................... 3
AGB 330 Agriculture Sales and Communication (3) ............... 3
or AGB 331 Agriculture Marketing (3)

ANSC 498 Work Experience in Animal Science .................... 1 - 4
Total Units: .................................................................................. 31 - 34

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

## ANSC 300
### Introduction to Animal Science 3 Units

**Hours:** 54 hours LEC  
**Prerequisite:** None.  
**Course Transferable to CSU; UC**  
**General Education:** AA/AS Area IV

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. (C-ID AG - AS 104)

## ANSC 301
### Introduction to Equine Science 3 Units

**Hours:** 54 hours LEC  
**Prerequisite:** None.  
**Course Transferable to CSU; UC**  
**General Education:** AA/AS Area IV

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

**Hours:** 32 hours LEC; 12 hours LAB  
**Prerequisite:** None.  
**Course Transferable to CSU**

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

**Hours:** 54 hours LEC  
**Prerequisite:** None.  
**Course Transferable to CSU**

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

**Hours:** 36 hours LEC; 54 hours LAB  
**Prerequisite:** None.  
**Course Transferable to CSU**

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. (C-ID AG - AS 132L)

## ANSC 305
### Equine Health 3 Units

**Hours:** 54 hours LEC  
**Prerequisite:** None.  
**Course Transferable to CSU; UC**

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

**Hours:** 54 hours LAB  
**Prerequisite:** None.  
**Course Transferable to CSU; UC**

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

**Hours:** 54 hours LEC  
**Prerequisite:** None.  
**Course Transferable to CSU**

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

**Hours:** 54 - 162 hours LAB  
**Prerequisite:** None.  
**Course Transferable to CSU**

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

Hours: 60 - 300 hours LAB
Prerequisite: None.

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
General Education: AA/AS Area III(b)

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

Hours: 72 hours LEC
Prerequisite: None

Course Transferable to CSU
See UC Limitations & Counselor
Anthropology
Social & Behavioral Sciences

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, Biological Anthropology, Archaeology and Linguistics. Cultural Anthropology is concerned with the study of human culture and its variations across time and space. Biological Anthropology studies 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 Anthropology studies 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 Associate Degrees 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.

Highlights
- Comprehensive lower division offerings, as well as specialty courses in all fields of anthropology
- Day, evening and online sections offered
- Hands-on lab facility readily accessible to students with one-on-one tutorial assistance available
- Professional, student centered and innovative staff committed to providing the best possible anthropology education
- Department sponsored events include field trips to museums, university anthropology departments and bringing nationally recognized anthropologists to the campus
- Excellent working relationship with transfer institutions to help provide a seamless transition for students transferring into Anthropology

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
ASSOCIATE DEGREES
A.A.-T. in Anthropology
CODE #1980

Degree Requirements ................................................. UNITS
Core Courses:
ANTH 300 Biological Anthropology ............................. 3
ANTH 301 Biological Anthropology Laboratory ........... 1
ANTH 310 Cultural Anthropology (3) .......................... 3
or ANTH 313 Introduction to Cultural Anthropology: Medical Focus (3)
ANTH 323 Introduction to Archaeology .......................... 3
STAT 300 Introduction to Probability and Statistics (4) ... 3 - 4
or PSYC 330 Introductory Statistics for the Behavioral Sciences (3)

Anthropology Electives:
A minimum of 3 units from the following:
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 336 Anthropology of Sex, Sexuality and Gender(3)

Science Electives:
GEOL 300 Physical Geology ....................................... 3 - 4
and GEOL 301 Physical Geology Laboratory (1)
and GEOL 305 Earth Science (3)
and GEOL 306 Earth Science Laboratory (1)
or GEOG 335 Introduction to Geographic Information Systems Applications (3)
or PSYC 335 Research Methods in Psychology (3)
Total Units: .................................................................... 19 - 21

Associate in Arts in Anthropology for Transfer Degree
The Associate in Arts in Anthropology for Transfer (AA-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

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, because many universities require more lower division courses than those in this degree. Even the CSU’s that accept this transfer degree may likely require more lower division courses to achieve the Bachelor degree. 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.

ASSOCIATE DEGREES
A.S. in Anthropology
CODE #1950

Degree Requirements ................................................. UNITS
Fall, Spring or Summer Term
ANTH 300 Biological Anthropology ............................. 3
ANTH 301 Biological Anthropology Laboratory ........... 1
ANTH 310 Cultural Anthropology (3) .......................... 3
or ANTH 313 Introduction to Cultural Anthropology: Medical Focus (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)

Check with Department for Schedule:
A minimum of 6 units from the following: .......................... 6
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)

A minimum of 3 units from the following: .......................... 3
Any other Anthropology course listed above
BIOL 350 Environmental Biology (3)
BIOL 430 Anatomy and Physiology (5)
BIOL 462 Genetics in Contemporary Human Society (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)
NUTRI 310 Cultural Foods of the World (3)
PHIL 352 Introduction to World Religions (3)
PSYC 330 Introductory Statistics for the Behavioral Sciences (3)
SOC 321 Race, Ethnicity and Inequality in the United States (3)
Total Units: .................................................................... 22 - 23

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, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

A.S. in General Science

Please see page 373 for more information
ANTHROPOLOGY (ANTH)

ANTH 300
Biological Anthropology 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGLWR 300 or equivalent skills as demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B
This course is an introduction to the science of biological anthropology, and analyzes the human place in nature. Applying principles of genetics and evolution, this course will explore modern human variation and how we evolved, including the unique role of culture. 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. (C-ID ANTH 110)

ANTH 301
Biological Anthropology Laboratory 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Corequisite: ANTH 300
Advisory: MATH 100, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: CSU Area B3; IGETC Area 5C
This course is an introductory laboratory course designed to provide students with an opportunity to become familiar with the methods of the science of biological 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 - Biological Anthropology. (C-ID ANTH 115L)

ANTH 303
Introduction to Forensic Anthropology 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ANTH 301 or BIOL 100 or BIOL 102, and eligibility for ENGLWR 300 or equivalent skills as demonstrated through the assessment process
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area V; CSU Area B2; IGETC Area 5B
This course provides an overview of forensic anthropology, which is an applied field of biological 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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGLWR 300 or the equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area V; CSU Area D1; IGETC Area 4A
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. (C-ID ANTH 120)

ANTH 313
Introduction to Cultural Anthropology: Medical Focus 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGLWR 300 or the equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area V; CSU Area D; IGETC Area 4
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 emphasizes the intersection of culture and medical practices, perspectives on healing and health, and the notion that biology and culture matter equally in the human experience of disease. Through ethnographic examples the course stresses anthropological concepts such as culture, cultural relativism, holism, ethnocentrism, cross-cultural comparisons, world view, culture change, fieldwork, ethics and theory. This Introduction to Cultural Anthropology course is highly recommended for students pursuing degrees in the health fields. This class is not intended for students who have already completed Anthropology 310. A field trip may be required at the discretion of the instructor. (C-ID ANTH 120)

ANTH 316
Global Forces in Culture Change 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGLWR 300 or the equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area V; CSU Area D1; IGETC Area 4A
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D1; IGETC Area 4A
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D1; IGETC Area 4A
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGRWR 300 or the equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D; IGETC Area 4
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGRWR 300 or equivalent skills as demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D1; IGETC Area 4A
This course provides a study of the many cultures of the different native inhabitants of California from the prehistoric period through the present time, introducing the diversity and complexity of aboriginal California. Topics include native ecological adaptations, material culture, social structure, language, religion and mythology, ideology and worldview, and response to change. The course critically examines the impact of Native Californian cultures on each other as well as interactions between Native Californians and other Native Americans, Americans, Europeans, Africans, Asians, Pacific Islanders, and others. Perspectives on changes in traditional life and Native Californians’ current position in American society will be included as well as contributions of Native Californians to the cultures of the Americas. A field trip may be required.

ANTH 333
Anthropology of Sex, Sexuality and Gender 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ANTH 300 (Physical Anthropology) or ANTH 310 (Cultural Anthropology) with a grade of “C” or better, and eligibility for ENGRWR 300 (College Composition).
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D1; IGETC Area 4A
This course provides an introductory overview of anthropological perspectives on sex, sexuality and gender, drawing from all four subfields (archaeology, cultural, linguistic, and physical). Topics will include cross-cultural comparisons of the diversity of sex, sexuality, and gender, comparisons of sexual behavior among extinct human ancestors and non-human primates such as monkeys and apes, drawing conclusions about the past from archaeological data, examining the nature/nurture debate, and examining evolutionary perspectives related to sex, sexuality and gender. A field trip may be required at the discretion of the instructor.
ANTH 341
Introduction to Linguistics 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGWR 300 or the equivalent skills as demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D1; IGETC Area 4A
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. (C-ID ANTH 130)

ANTH 374
Birth to Death: The Anthropology of Primate Culture and Behavior 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGWR 300 or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area IV; CSU Area D; IGETC Area 4A
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
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
General Education: AA/AS Area III(b)
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
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 skill 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 Draftpersons  Designer/Technicians
Planning Assistants  CADD Operators
Facilities/Space Planner  BIM Technician
CADD 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.

Highlights
• State-of-the-art computer aided drafting laboratory
• Instruction by licensed California architect
• Participation in architecturally related events such as Design Village Competition at Cal Poly San Luis Obispo

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

ASSOCIATE DEGREES
A.S. in 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.

DEGREE REQUIREMENTS  ................................................. 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 320  Architectural Design Technology - Building Information Modeling (BIM) I .........................3
ADT 324  Architectural Design Technology - Building Information Modeling (BIM) II..................3
ADT 326  Architectural Design Technology - Building Information Modeling (BIM) III ..........................3
ADT 498  Work Experience in Architecture Design Technology ........................................... 1 - 4

Total Units: ................................................................. 25 - 28

Associate in Science Degree
The Building Information Modeling (BIM) Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
A.S. in 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.

**DEGREE REQUIREMENTS**  
**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 320  Architectural Design Technology - Building Information Modeling (BIM) I .................................................. 3
- ADT 322  Architectural Design Technology - Building Information Modeling (BIM) II .................................................... 3
- ARCH 329  Architectural Working Drawings ........................................ 4
- CMT 112  Construction Estimating ...................................................... 3

**Total Units:** ................................................................. 25

**Associate Degree**

The Interior Building Architecture Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

**CERTIFICATE OF ACHIEVEMENT**

**Building Information Modeling (BIM) Certificate**  
**CODE #1973**

This Certificate 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.

**CERTIFICATE REQUIREMENTS**  
**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 320  Architectural Design Technology - Building Information Modeling (BIM) I .................................................. 3
- ADT 322  Architectural Design Technology - Building Information Modeling (BIM) II .................................................... 3
- ARCH 329  Architectural Working Drawings ........................................ 4
- CMT 112  Construction Estimating ...................................................... 3

**Total Units:** ................................................................. 18

**CERTIFICATE OF ACHIEVEMENT**  
**Green Buildings Certificate**  
**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.

**CERTIFICATE REQUIREMENTS**  
**UNITS**

- ARCH 342  Introduction to Green Buildings ........................................ 3
- CMT 310  Materials of Construction ................................................... 3

**A minimum of 12 units from the following:**

- ARCH 332  Design Awareness ........................................................... 3
- ARCH 334  Advanced Design in Three Dimensions ........................... 3
- ADT 320  Architectural Design Technology - Building Information Modeling (BIM) I .................................................. 3
- ADT 322  Architectural Design Technology - Building Information Modeling (BIM) II .................................................... 3
- BIT 150  California Energy Code – Building Energy Efficiency Standards .................................................. 3
- CONST 143  Photovoltaic Systems ....................................................... 3
- ECON 306  Environmental Economics ................................................ 3
- GEOG 302  Environmental Studies & Sustainability .......................... 3
- GEOG 305  Global Climate Change ..................................................... 3
- GEOG 306  Weather and Climate .......................................................... 3

**Total Units:** ................................................................. 18

**CERTIFICATE OF ACHIEVEMENT**

**Interior Building Architecture Certificate**  
**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.

**CERTIFICATE REQUIREMENTS**  
**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 320  Architectural Design Technology - Building Information Modeling (BIM) I .................................................. 3
- ADT 322  Architectural Design Technology - Building Information Modeling (BIM) II .................................................... 3
- ARCH 320  Architectural and Communication I ............................... 3.5
- ARCH 321  Architectural and Communication II .............................. 3.5
- CMT 310  Materials of Construction ................................................... 3

**Total Units:** ................................................................. 26
ARCHITECTURAL DESIGN TECH (ADT)

ADT 300
Architectural Sketching and Modeling I 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU
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 301
Introduction to Architectural Design Technology 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU
Introduction to Architectural Design Technology (ADT) is a foundational course for students interested in a career within the Architecture, Engineering and Construction (AEC) industry. The course covers introductory skills needed for success in completing the ADT degree. Students will explore the role of the architectural / building technologist in the AEC industry and the current best practices for use of technology in building design and construction. Upon completion of this course, students will be able to identify potential roles for employment and will be able to utilize various tools and instruments to create freehand, technical and digital drawings for communication of various types of graphics and drawings required in industry. A completed portfolio of work will be required.

ADT 302
Architectural Sketching and Modeling II 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: ADT 300
Course Transferable to CSU
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU
This course instructs students at the basic to intermediate level in office, commercial and residential space planning, Title 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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: ADT 300 and 302
Course Transferable to CSU
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 CAD 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
Hours: 36 hours LEC; 54 hours LAB
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.
Advisory: DRAFT 312
Course Transferable to CSU; UC
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 320
Architectural Design Technology - Building Information Modeling (BIM) I 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: ADT 310
Course Transferable to CSU
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.

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ADT 322  
Architectural Design Technology -  
Building Information Modeling (BIM) II  3 Units  
Hours: 36 hours LEC; 54 hours LAB  
Prerequisite: ADT 320, or skills equivalent to ADT 320 with proficiency determined by the instructor.  
Course Transferable to CSU  
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 324  
Architectural Design Technology -  
Building Information Modeling (BIM) III  3 Units  
Hours: 36 hours LEC; 54 hours LAB  
Prerequisite: ADT 322 with a grade of “C” or better; or skills equivalent to ADT 322 with proficiency determined by the instructor.  
Advisory: ADT 310 and 320; 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  
This course instructs students in the intermediate 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 326  
Architectural Design Technology -  
Building Information Modeling (BIM) IV  3 Units  
Hours: 36 hours LEC; 54 hours LAB  
Prerequisite: ADT 322, or skills equivalent to ADT 322 with proficiency determined by the instructor.  
Advisory: ADT 310 and 320; 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  
This course instructs students in the intermediate 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  
Hours: 54 - 162 hours LAB  
Prerequisite: None.  
Course Transferable to CSU  
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  
Hours: 60 - 300 hours LAB  
Prerequisite: None.  
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  
General Education: AA/AS Area III(b)  
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 Architectural Design Technology  .5-4 Units  
Hours: 18 hours LEC; 54 hours LAB  
Prerequisite: None  
Course Transferable to CSU  
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.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, the University of California at Berkeley, and New School of Architecture and Design.

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 Ríos 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, the United States Green Building Council Energy Competition, and SMUD’s Tiny House Competition.
• Liaison with professional organizations such as the American Institute of Architects (AIA), the Construction Specification Institute (CSI), and U.S. Green Building Council (USGBC)

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

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.

ASSOCIATES DEGREE
A.S. in 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 modeling and rendering; construction methods and materials; energy systems and an understanding of human needs and sociology as they relate to the built environment.

Degree Requirements ............................................. UNITS
ARCH 300 Introduction to Design Professions .................. 2
ARCH 310 History of Architecture ................................. 3
ARCH 320 Architectural Design and Communication I ........ 3.5
ARCH 321 Architectural Design and Communication II ........ 3.5
ARCH 322 Architectural Design and Communication III ........ 3.5
ARCH 325 Architectural Digital Design and Communication I .. 3
ARCH 326 Architectural Digital Design and Communication II ... 3
ARCH 329 Architectural Working Drawings ...................... 4
ARCH 330 Design Fundamentals .................................. 3.5
ARCH 332 Design Awareness .................................... 3
ARCH 334 Advanced Design in Three Dimensions ............. 3
ARCH 342 Introduction to Green Buildings ...................... 3
CMT 310 Materials of Construction ............................. 3

Total Units: .......................................................... 41

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

The objective of this certificate 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 design; visual communication and drawing; computer modeling and rendering; construction methods and materials; energy systems and an understanding of human needs and sociology as they relate to the built environment.

Certificate Requirements.......................................................... UNITS
ARCH 300 Introduction to Design Professions ......................... 2
ARCH 320 Architectural Design and Communication I ............ 3.5
ARCH 321 Architectural Design and Communication II .......... 3.5
ARCH 322 Architectural Design and Communication III .......... 3.5
ARCH 325 Architectural Digital Design and Communication I ... 3
ARCH 326 Architectural Digital Design and Communication II ... 3
ARCH 329 Architectural Working Drawings ......................... 4
ARCH 330 Design Fundamentals .......................................... 3.5
ARCH 332 Design Awareness ............................................. 3
ARCH 334 Advanced Design in Three Dimensions ............... 3
ARCH 342 Introduction to Green Buildings ......................... 3
CMT 310 Materials of Construction .................................... 3
Total Units: .............................................................................. 38

CERTIFICATE OF ACHIEVEMENT
Green Buildings Certificate
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.

Certificate Requirements.......................................................... UNITS
ARCH 342 Introduction to Green Buildings ......................... 3
CMT 310 Materials of Construction .................................... 3
A minimum of 12 units from the following:
ARCH 332 Design Awareness (3)
ARCH 334 Advanced Design in Three Dimensions (3)
ADT 320 Architectural Design Technology - Building Information Modeling (BIM) I (3)
ADT 322 Architectural Design Technology - Building Information Modeling (BIM) II (3)
BIT 150 California Energy Code – Building Energy Efficiency Standards (3)
CONST 143 Photovoltaic Systems (3)
ECON 306 Environmental Economics (3)
GEOG 302 Environmental Studies & Sustainability (3)
GEOG 305 Global Climate Change (3)
GEOG 306 Weather and Climate (3)
Total Units: .............................................................................. 18

ARCHITECTURE (ARCH)

ARCH 300
Introduction to Design Professions ................................. 2 Units
Hours: 36 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
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 class discussion of current issues in the environmental design professions. Additional topics in the class will include: transfer, licensing requirements and environmental design vocabulary.

ARCH 310
History of Architecture .................................................. 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGWR 101
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1
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
Hours: 54 hours LEC; 27 hours LAB
Prerequisite: None.
Corequisite: ARCH 325
Course Transferable to CSU; UC
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 should previously or concurrently enroll in ARCH 325 to learn methods for digital construction of design and drawing projects assigned in ARCH 320.
ARCH 329
Architectural Working Drawings  4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: It is advised that students taking this course have completed a Building Information Modeling (BIM) course or have completed Arch 321 and Arch 326.
Course Transferable to CSU
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  3.5 Units
Hours: 54 hours LEC; 27 hours LAB
Prerequisite: ARCH 320 with a grade of "C" or better
Course Transferable to CSU; UC
This course develops an understanding of design fundamentals in terms of materiality and the theories, concepts, creative problem solving processes, and skills pertaining to the analysis and design of architectural form, space and organizations to communicate intended concepts and meanings.

ARCH 332
Design Awareness  3 Units
Hours: 54 hours LEC; 18 hours LAB
Prerequisite: ARCH 320 and 321 with grades of "C" or better
Advisory: ARCH 330
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1
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 a determinant that shapes and impacts the built environment.

ARCH 334
Advanced Design in Three Dimensions  3 Units
Hours: 54 hours LEC; 18 hours LAB
Prerequisite: ARCH 332 with a grade of "C" or better
Advisory: ARCH 320 and 330
Course Transferable to CSU
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 342
Introduction to Green Buildings  3 Units

Hours: 54 hours LEC
Prerequisite: None.

Course Transferable to CSU
This course is the study of theory and application of climate, energy use and thermal comfort as determinants of architectural form in envelope load dominated buildings. Emphasis is placed on sustainable architectural methods and topics related to resource conservation and waste reduction; site analysis; sun access; sun shading; daylighting; lighting, ventilating, cooling and heating for envelope-load dominated buildings; and sound in buildings. The course enhances students’ knowledge base and preparation for design classes ARCH 332 and ARCH 334.

This course replaces the ARCH 340 and 341 two-course sequence, and is therefore not open to a student that has received credit for both ARCH 340 and 341.

ARCH 495
Independent Studies in Architecture 1 - 3 Units

Hours: 54 - 162 hours LAB
Prerequisite: None.

Course Transferable to CSU
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

Hours: 60 - 300 hours LAB
Prerequisite: None.
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
General Education: AA/AS Area III(b)
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
PROGRAM DESCRIPTION

CRC’s art curriculum offers introductory and intermediate level courses in painting, figure drawing, 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.

NOTES 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
ASSOCIATE DEGREES
A.A.-T. in Art History
CODE #1983

The Associate in Arts in Art History for Transfer Degree (AA-T) is designed to provide a seamless transfer pathway for students interested in pursuing at least one Art History degree option in the California State University (CSU) system. The degree is comprised of lower division coursework typically required by CSU institutions. Students must complete a total of 60 transferable semester units with a minimum 2.0 GPA, to include either the California State University General Education Breadth pattern or the Intersegmental General Education Transfer Curriculum; 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.

Note to Transfer Students:
The Associate in Arts in Art History 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.

Degree Requirements ................................................................. 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
ARTH 300 Drawing and Composition I ......................................3
A minimum of 3 units from the following:
ARTH 333 Introduction to Islamic Art (3)
or ARTH 328 Survey of African Art (3)
or ARTH 332 Asian Art (3)
A minimum of 3 units from the following:
ARTH 304 Figure Drawing I (3)
or ARTH 320 Design: Fundamentals (3)
or ARTH 361 Printmaking: Survey (3)
or ARTH 372 Sculpture (3)
A minimum of 3 units from the following:
ART 301 Digital Drawing and Composition (3)
or ART 327 Painting I (3)
or ART 304 Figure Drawing I (3)
or ARTH 333 Introduction to Islamic Art (3)
or ARTH 328 Survey of African Art (3)
or ARTH 320 Design: Fundamentals (3)
or ARTH 361 Printmaking: Survey (3)
or ART 372 Sculpture (3)
or ARTH 312 Women in Art (3)
or ARTH 332 Asian Art (3)
Total Units: .............................................................................. 21

Note to Transfer Students:
The Associate in Arts in Art History for Transfer Degree (AA-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.
Associate in Arts in Studio Arts for Transfer Degree
The Associate in Arts in Studio Arts for Transfer (AA-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Curriculum (IGETC) or the California State University General Education-Breadth Requirements. Individuals with baccalaureate degrees in art may be placed in the K-12 educational field as well as in museums and galleries as registrars, preparators, and curatorial staff. Individuals may also work as fine artists, graphic artists or designers, illustrators, digital artists, and other commercial work such as freelance photographers. Advanced degrees in art may lead to careers as educators at the college or university level, art directors, art editors, curators, conservators, and restorers for museums and galleries. Many careers may require training beyond the baccalaureate level.

A.A. in Art - Art History
CODE #1270
CRC's art curriculum offers introductory and intermediate level courses in painting, watercolor, computer art, drawing, sculpture, ceramics, printmaking and design, as well as courses in art appreciation and art history. Through the program's art theory and art practice classes, students develop an awareness and understanding of the materials, tools, rationale and significance of art in society. The art curriculum's critical thinking and technical skills components encourage students to utilize independent thought processes and problem solving. This program provides transfer and employment opportunities as well as personal enrichment for 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.

Degree Requirements ...............................................................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
A minimum of 9 units from the following:
ARTH 312 Women in Art (3)
ARTH 332 Asian Art (3)
ARCH 310 History of Architecture (3)
HUM 300 Classical Humanities (3)
HUM 310 Modern Humanities (3)
HUM 320 Asian Humanities (3)
HUM 332 American Humanities (3)
A minimum of 3 units from the following:
ART 300 Drawing and Composition I (3)
ART 304 Figure Drawing I (3)
ART 320 Design: Fundamentals (3)
ART 327 Painting I (3)
ART 336 Watercolor Painting (3)
ARCH 320 Architectural Design and Communication I (3.5)
A minimum of 2 units from the following:
ART 499 Experimental Offering in Art (0.5 - 4)
ART 494 Topics in Art (0.5 - 4)
Total Units: .............................................................................. 23

Associate Degree
The Art - Art History Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

A.A. in Art - Design
CODE #1268
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 personal development for students. With a choice of acquiring an A.A. degree in one of three 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 technical skill, conceptual abilities 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 technical skills and the creative process as it relates to the applied arts, e.g. graphic design, product design, architecture, web design, interior design, etc.

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.

Degree Requirements ...............................................................UNITS
ART 300 Drawing and Composition I ......................... 3
ART 304 Figure Drawing I ..................................................... 3
ART 320 Design: Fundamentals ......................... 3
ART 323 Design: Color Theory ........................................... 3
ART 370 Three Dimensional Design ................. 3
A minimum of 6 units from the following:
ART 325 Introduction to Graphic Design (3)
ARTNM 324 Digital Design (3)
JOUR 335 Introduction to Desktop Publishing (2)
JOUR 336 Intermediate Desktop Publishing (2)
ART 338 Introduction to Digital Painting I (3)
or ART 301 Digital Drawing and Composition (3)
A minimum of 3 units from the following:
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: .............................................................................. 24

Associate in Arts Degree
The Art - Design Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
A.A. in Art - Studio Art
CODE #1267

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 personal development for students. With a choice of acquiring an A.A. degree in one of three 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-Design is designed for the student wanting to develop their individual skill, conceptual 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.

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.

Degree Requirements ........................................................................... UNITS
ART 300 Drawing and Composition I ................................................. 3
ART 304 Figure Drawing I ................................................................. 3
ART 320 Design: Fundamentals ....................................................... 3
ART 370 Three Dimensional Design ............................................... 3
A minimum of 6 units from the following:
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 328 Survey of African Art (3)
ARTH 332 Asian Art (3)
ARTH 333 Introduction to Islamic Art (3)
A minimum of 12 units from the following:
ART 301 Digital Drawing and Composition (3)
ART 302 Drawing and Composition II (3)
ART 305 Figure Drawing II (3)
ART 312 Portrait Drawing (3)
ART 324 Collage and Assemblage (3)
ART 327 Painting I (3)
ART 328 Painting II (3)
ART 330 Murals Painting (3)
ART 336 Watercolor Painting (3)
ART 337 Intermediate Watercolor Painting (3)
ART 361 Printmaking: Survey (3)
ART 362 Printmaking: Intaglio (3)
ART 364 Printmaking: Relief (3)
ART 372 Sculpture (3)
ART 402 Beginning Clay Sculpture (3)
ART 404 Intermediate Clay Sculpture (3)
ART 338 Introduction to Digital Painting I (3)
ARTNM 324 Digital Design (3)
ARTNM 420 3D Modeling and Texturing I - Introduction (3)
ART 443 Art Gallery Operations (3)
Total Units: ......................................................................................... 30

Associate Degree
The Art - Studio Art Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

A.A. in 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 requirements.

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.

Degree Requirements ........................................................................... UNITS
ART 300 Drawing and Composition I ................................................. 3
PHOTO 301 Beginning Photography ................................................ 3
PHOTO 420 History of Photography ................................................ 3
PHOTO 310 Intermediate Photography ......................................... 3
ARTH 300 Introduction to Art ......................................................... 3
ART 304 Figure Drawing I ................................................................. 3
or ART 361 Printmaking: Survey (3) ................................. 3
PHOTO 320 Color Photography ......................................................... 3
PHOTO 360 Large Format Photography ................................. 3
PHOTO 365 Alternative Process Photography ................. 3
or PHOTO 364 Advanced Black and White Photography ............ 3
Total Units: ......................................................................................... 27

Associate Degree
The Art-Photo Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements. Fine art photographer, gallery worker, museum worker, curator or general photographer.

CERTIFICATE OF ACHIEVEMENT
Fine Art Photography Certificate
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.

Certificate Requirements .................................................................. UNITS
PHOTO 301 Beginning Photography ................................................ 3
PHOTO 310 Intermediate Photography ......................................... 3
or PHOTO 364 Advanced Black and White Photography ............ 3
PHOTO 320 Color Photography ......................................................... 3
PHOTO 360 Large Format Photography ......................................... 3
PHOTO 365 Alternative Process Photography ........................... 3
or PHOTO 366 Advanced Alternative Process Photography ....... 3
PHOTO 400 Digital Imaging ............................................................... 3
PHOTO 420 History of Photography ................................................ 3
A minimum of 3 units from the following:
PHOTO 260 The Eastern Sierra Landscape, Yosemite Valley (2)
PHOTO 272 Lightroom (1.5)
PHOTO 273 Video Capture with DSLRs (1.5)
PHOTO 275 Digital Applications for Alternative Processes (1.5)
PHOTO 277 Creating a Digital Portfolio (1.5)
PHOTO 350 Photojournalism ............................................................... 3
PHOTO 278 Flash Photography ......................................................... 1.5
Total Units: ......................................................................................... 24
ART (ART)

ART 300
Drawing and Composition I 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1
This course covers the fundamentals of drawing emphasizing the use of line, shape, value, perspective, space, and composition. It introduces and uses various drawing media 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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I
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
Drawing and Composition II 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: ART 300 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: CSU Area C1
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. Field trips may be required. (C-ID ARTS 205)

ART 304
Figure Drawing I 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: ART 300 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1
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. Student may wish to challenge the prerequisite by presenting to the instructor a portfolio of their work. Field trips may be required.

ART 305
Figure Drawing II 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: ART 304 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: CSU Area C1
This studio course offers intermediate drawing from the human figure. There will be more sophisticated lectures and discussions 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. (C-ID ARTS 200)

ART 312
Portrait Drawing 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: CSU Area C1
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: ART 320 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU
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 I 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: ART 300
Course Transferable to CSU; UC
General Education: CSU Area C1
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. (C-ID ARTS 210)

ART 328
Painting II 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: ART 327 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: CSU Area C1
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: ART 336 with a grade of “C” or better
Course Transferable to CSU; UC
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1
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. (C-ID ARTS 220)

ART 362
Printmaking: Intaglio 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I
This course presents the techniques of wood and linoleum cutting and printing by hand and by press. Field trips are required.
ART 370
Three Dimensional Design 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1
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. (C-ID ARTS 101)

ART 372
Sculpture 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1
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.

ART 394
Wheel Thrown Ceramics, Beginning 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I
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.

ART 395
Wheel Thrown Ceramics, Intermediate 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: ART 394 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area I
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.

ART 396
Wheel Thrown Ceramics, Advanced 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: ART 395 with a grade of “C” or better
Course Transferable to CSU; UC
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.

ART 402
Beginning Clay Sculpture 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
This course is an introductory class in ceramic sculpture 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.

ART 404
Intermediate Clay Sculpture 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: ART 402 with a grade of “C” or better
Course Transferable to CSU; UC
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.

ART 430
Art and Children 3 Units
Hours: 45 hours LEC; 27 hours LAB
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area I; CSU Area C1
This course is designed to give students an opportunity to study topics in an area of personal interest. Topics may include 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. (C-ID ARTS 101)
ART 495
Independent Studies in Art 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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 0.5-4 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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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. (C-ID ARTH 100)

ARTH 303
Art Survey: Ancient to 14th Century 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 301 or 302
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 300 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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. (Part of C-ID ARTH 120)

ARTH 311
Art Survey: Modern Art 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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. (C-ID ARTH 150; C-ID ARTH 120)

ARTH 312
Women in Art 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; AA/AS Area V; CSU Area C1; IGETC Area 3A
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C1; IGETC Area 3A
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C1; CSU Area C2; IGETC Area 3A; IGETC Area 3B
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGW 300 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C1; IGETC Area 3A
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. (C-ID ARTH 130)

ARTH 333
Introduction to Islamic Art  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; CSU Area C2; IGETC Area 3A; IGETC Area 3B
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
## Automotive Mechanics Technology

### DEGREE

A.S. — Automotive Mechanics Technology  
A.S. — Automotive Mechanics Technology (ASSET)

### CERTIFICATES OF ACHIEVEMENT

- Automotive Mechanics Technology  
- Automotive Brakes  
- Automotive Electrical Systems  
- Automotive Emission Control  
- Automotive Engine Performance  
- Automotive Engine Repair  
- Automotive Heating & Air Conditioning  
- Automotive Suspension & Steering  
- Automatic Transmissions and Transaxles  
- Small Engine Repair

### CERTIFICATES OF ACHIEVEMENT - ASSET Focus

- Automotive Brakes  
- Automotive Electrical Systems  
- Automotive Engine Performance  
- Automotive Engine Repair  
- Automotive Heating and Air Conditioning  
- Automotive Mechanics Technology  
- Automotive Suspension and Steering  
- Automatic Transmissions and Transaxles  
- Manual Drive Train and Axles

### 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  

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](http://www.crc.losrios.edu/pslo)
ASSOCIATE DEGREES
A.S. in Automotive Mechanics Technology
CODE #1028

This program emphasizes developing skills required for efficient diagnosis, maintenance, and repair of the automobile and its components. Completion of this degree also represents completion of a National Automotive Technicians Education Foundation (NATEF) accredited Master Automotive Service Technology (MAST) program. Instructors for this program are Automotive Service Excellence (ASE) certified as required by NATEF standards.

Upon successful completion of the program, students are qualified for placement as technicians in the automotive industry. Students may apply units earned by successful completion of Automotive Mechanics Technology courses to one or more of the specialized certificates and/or the Associate Degree in Automotive Mechanics Technology.

Degree Requirements ................................................................. UNITS
AMT 300 Automotive Fundamentals and Shop Procedures...4
AMT 303 Automotive Electrical & Electronic Systems........4
AMT 304 Automotive Manual Drive Train and Axles..........3
AMT 310 Engine Performance.................................................3
AMT 314 Wheel Alignment.....................................................3
AMT 316 Automotive Brakes..................................................3
AMT 322 Engine Repair..........................................................3
AMT 324 Electronic Fuel Injection.........................................3
AMT 326 Automotive Heating and Air Conditioning..........3
AMT 330 Automatic Transmissions/Transaxles..............3
AMT 332 Automotive Computerized Controls................3
A minimum of 5 units from the following:
AMT 140 Automotive Service (1)
AMT 301 Automotive Service Management (3)
AMT 305 Survey of Alternative Fuel & Hybrid Vehicles (3)
AMT 306 Small Engine Repair (3)
AMT 308 Late Model Car Care and Maintenance (3)
AMT 498 Work Experience in Automotive Mechanics Technology (1 - 4)
A minimum of 3 units from the following:
AMT 321 Advanced Automotive Electrical & Hybrid Vehicle Systems (3)
AMT 328 Light Duty Diesel Engine Performance (3)
AMT 336 Advanced Service Management (3)
AMT 340 Emission Control Inspection and Repair (5)
Total Units: .............................................................................. 43

Suggested Electives:
BUS 330, ENGW 341, MATH 144

Associate in Science Degree
The Automotive Mechanics Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

General Focus: Courses in the general automotive 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.S. degree in Automotive Mechanics Technology are available.

CERTIFICATE OF ACHIEVEMENT
Automatic Transmissions and Transaxles Certificate
CODE #1034

The curriculum is designed for students interested in seeking employment in the diagnosis and repair of automatic transmissions/transaxles.

Certificate Requirements......................................................... UNITS
AMT 300 Automotive Fundamentals and Shop Procedures...4
AMT 303 Automotive Electrical & Electronic Systems........4
AMT 304 Automotive Manual Drive Train and Axles..........3
AMT 330 Automatic Transmissions/Transaxles..............3
Total Units: .............................................................................. 14

CERTIFICATE OF ACHIEVEMENT
Automatic Brakes Certificate
CODE #1029

This curriculum is designed for students interested in seeking employment in the repair and installation of automotive brakes systems.

Certificate Requirements......................................................... UNITS
AMT 300 Automotive Fundamentals and Shop Procedures...4
AMT 303 Automotive Electrical & Electronic Systems........4
AMT 310 Engine Performance.................................................3
AMT 316 Automotive Brakes..................................................3
AMT 332 Automotive Computerized Controls................3
Total Units: .............................................................................. 17

CERTIFICATE OF ACHIEVEMENT
Automatic Electrical Systems Certificate
CODE #1030

This curriculum is designed for students interested in seeking employment in the diagnosis and repair of automotive electrical systems.

Certificate Requirements......................................................... UNITS
AMT 300 Automotive Fundamentals and Shop Procedures...4
AMT 303 Automotive Electrical & Electronic Systems........4
AMT 310 Engine Performance.................................................3
AMT 321 Advanced Automotive Electrical & Hybrid Vehicle Systems........3
AMT 332 Automotive Computerized Controls................3
Total Units: .............................................................................. 17

CERTIFICATE OF ACHIEVEMENT
Automotive Emission Control Certificate
CODE #1365

This curriculum is designed for students who are interested in seeking employment in the inspection, diagnosis, and/or repair of automotive emission control systems. Students completing this program may be eligible to pursue licensing as a California SMOG Check Inspector and/or California SMOG Check Repair Technician.

Certificate Requirements......................................................... UNITS
AMT 300 Automotive Fundamentals and Shop Procedures...4
AMT 303 Automotive Electrical & Electronic Systems........4
AMT 310 Engine Performance.................................................3
AMT 324 Electronic Fuel Injection.........................................3
AMT 332 Automotive Computerized Controls................3
AMT 340 Emission Control Inspection and Repair...............5
Total Units: .............................................................................. 22
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 303, 310, 332.
3. No units will be earned for requirements met through licensing or certification exams. In these cases fewer total units are required.

CERTIFICATE OF ACHIEVEMENT
Automotive Engine Performance Certificate
CODE #1035

This curriculum is designed for students who are interested in seeking employment in the inspection, maintenance, diagnosis, and repair of automotive engine performance systems.

Certificate Requirements.................................................. UNITS
AMT 300 Automotive Fundamentals and Shop Procedures.... 4
AMT 303 Automotive Electrical & Electronic Systems.... 4
AMT 306 Small Engine Repair (3)................................. 3
or AMT 322 Engine Repair (3)................................. 3
AMT 310 Engine Performance........................................ 3
AMT 321 Advanced Automotive Electrical & Hybrid Vehicle Systems.................. 3
AMT 324 Electronic Fuel Injection................................. 3
AMT 332 Automotive Computerized Controls (3)............ 3 - 5
or AMT 340 Emission Control Inspection and Repair (5).....

Total Units: ...................................................................... 23 - 25

CERTIFICATE OF ACHIEVEMENT
Automotive Engine Repair Certificate
CODE #1031

This curriculum is designed for students interested in seeking employment in the engine overhaul and engine repair field.

Certificate Requirements.................................................. UNITS
AMT 300 Automotive Fundamentals and Shop Procedures.... 4
AMT 306 Small Engine Repair ........................................ 3
AMT 322 Engine Repair ............................................... 3
A minimum of 3 units from the following:
Any other Automotive Mechanics Technology course
Total Units: ...................................................................... 13

CERTIFICATE OF ACHIEVEMENT
Automotive Heating and Air Conditioning Certificate
CODE #1032

This curriculum is designed for students interested in seeking employment in the automotive heating and air conditioning repair/ installation field.

Certificate Requirements.................................................. UNITS
AMT 300 Automotive Fundamentals and Shop Procedures.... 4
AMT 303 Automotive Electrical & Electronic Systems.... 4
AMT 310 Engine Performance........................................ 3
AMT 326 Automotive Heating and Air Conditioning ......... 3
AMT 332 Automotive Computerized Controls ................ 3
Total Units: ...................................................................... 17

CERTIFICATE OF ACHIEVEMENT
Automotive Mechanics Technology Certificate
CODE #1028

This one-year curriculum is designed for students who are seeking basic job entry skills for employment in the automotive field. Subsequent certificates and/or an Associate degree in Automotive Mechanics Technology can be earned without the need to repeat courses completed as part of this certificate. Completion of this certificate also represents completion of a National Automotive Technicians Education Foundation (NATEF) accredited Master Automotive Service Technology (MAST) program. Instructors for this program are Automotive Service Excellence (ASE) certified as required by NATEF standards.

Certificate Requirements.................................................. UNITS
AMT 300 Automotive Fundamentals and Shop Procedures.... 4
AMT 303 Automotive Electrical & Electronic Systems.... 4
AMT 304 Automotive Manual Drive Train and Axles........ 3
AMT 310 Engine Performance........................................ 3
AMT 314 Wheel Alignment............................................ 3
AMT 316 Automotive Brakes........................................ 3
AMT 322 Engine Repair ............................................... 3
AMT 324 Electronic Fuel Injection................................. 3
AMT 326 Automotive Heating and Air Conditioning ......... 3
AMT 330 Automatic Transmissions/Transaxles............. 3
AMT 332 Automotive Computerized Controls ............... 3
A minimum of 5 units from the following:
AMT 140 Automotive Service (1)
AMT 301 Automotive Service Management (3)
AMT 305 Survey of Alternative Fuel & Hybrid Vehicles (3)
AMT 306 Small Engine Repair (3)
AMT 308 Late Model Car Care and Maintenance (3)
AMT 498 Work Experience in Automotive Mechanics Technology (1 - 4)
A minimum of 3 units from the following:
AMT 321 Advanced Automotive Electrical & Hybrid Vehicle Systems (3)
AMT 328 Light Duty Diesel Engine Performance (3)
AMT 336 Advanced Service Management (3)
AMT 340 Emission Control Inspection and Repair (5)

Total Units: ...................................................................... 43

CERTIFICATE OF ACHIEVEMENT
Automotive Suspension and Steering Certificate
CODE #1033

This curriculum is designed for students interested in seeking employment in the automotive suspension, steering, or wheel alignment fields.

Certificate Requirements.................................................. UNITS
AMT 300 Automotive Fundamentals and Shop Procedures.... 4
AMT 303 Automotive Electrical & Electronic Systems.... 4
AMT 310 Engine Performance........................................ 3
AMT 314 Wheel Alignment............................................ 3
AMT 332 Automotive Computerized Controls ............... 3
Total Units: ...................................................................... 17

CERTIFICATE OF ACHIEVEMENT
Small Engine Repair Certificate
CODE #1036

This curriculum is designed for students who are interested in obtaining skills necessary for the repair of small engines used in industry, home maintenance, landscape maintenance and recreation.

– Continued on next page –
Small Engine Repair Certificate continued

Certificate Requirements .........................................................UNITS
AMT 303 Automotive Electrical & Electronic Systems .............. 4
AMT 306 Small Engine Repair .................................................. 3
AMT 310 Engine Performance .................................................... 3
AMT 324 Electronic Fuel Injection ............................................. 3
Total Units: ........................................................................... 13

A.S. in Automotive Mechanics Technology (Ford ASSET)
CODE #2016

The Ford Automotive Student Service Education Training (ASSET) Program is a two-year Associate's Degree program in Automotive Mechanics Technology. This program is designed to help students develop the skills necessary to efficiently and accurately maintain, diagnose, and service/repair all major systems of the automobile.

The Ford ASSET Program is a partnership between Cosumnes River College (CRC) and Ford Motor Company. Ford ASSET is the only program that includes an in dealership cooperative work experience component. Students will rotate between school and the dealership for the duration of the two-year program, giving them invaluable hands-on experience while they learn.

Courses within the Ford ASSET program allow students to earn Service Technician Specialty Training (STST) certifications from Ford Motor Company in the following areas:
- Electrical Systems
- Brake Systems
- Steering & Suspension
- Climate Control
- Automatic Transmissions
- Gasoline Engine Repair
- Gasoline Engine Performance
- Diesel Engine Repair
- Diesel Engine Performance
- Manual Transmissions

Instructors for this program are Ford STST certified as required by Ford Motor Company standards.

Completion of this degree also represents completion of a National Automotive Technicians Education Foundation (NATEF) accredited Master Automotive Service Technology (MAST) program. Instructors for this program are Automotive Service Excellence (ASE) certified as required by NATEF standards.

Upon successful completion of this program, students are well qualified for placement as service technicians in Ford and/or Lincoln dealerships. Students may apply units earned by the successful completion of this program to one or more of the specialized certificates as well as the Associate's degree.

Enrollment Eligibility:
To be eligible for enrollment in the program, the student must meet the following criteria:
- Eligibility for ENGWR 101.
- Eligibility for MATH 100.
- Possess a valid driver's license with a driving record that is suitable for the sponsoring dealership’s insurance requirements.
- Able to operate a vehicle equipped with a manual transmission.
- Meet sponsoring dealership hiring requirements which may include submitting to a drug test and/or criminal background check.
- Completion of an application for the Ford ASSET Program (can be found at http://www.crc.losrios.edu/cars).

Enrollment Process:
Eligible students are selected for the program according to the following steps:
- Students are selected from the applicant pool in the order in which they are received.
- Only students who meet the stated eligibility requirements will be considered for the program.

Degree Requirements .................................................................. UNITS
AMT 370 Ford ASSET Automotive Fundamentals and ......... 4
Dealership Practices ................................................................. 4
AMT 371 Ford ASSET Automotive Electrical/Electronic .... 3
Systems .................................................................................. 3
AMT 372 Ford ASSET Automotive Brake Systems .......... 3
A minimum of 3 units from the following:
AMT 498 Work Experience in Automotive Mechanics .... 3
Technology(1 - 4)
AMT 374 Ford ASSET Automotive Suspension and Steering .3
AMT 375 Ford ASSET Automotive Wheel Alignment .......... 3
AMT 376 Ford ASSET Automotive Heating and Air ......... 3
Conditioning ............................................................................ 3
A minimum of 3 units from the following:
AMT 498 Work Experience in Automotive Mechanics .... 3
Technology(1 - 4)
AMT 378 Ford ASSET Automatic Transmissions/Transaxes... 3
AMT 130 Ford ASSET Advanced Automatic Transmission .. 3
Diagnosis .................................................................................. 1.5
AMT 379 Ford ASSET Automotive Engine Repair .......... 3
AMT 385 Ford ASSET Automotive Manual Drive Train and .. 3
Axes ......................................................................................... 1.5
AMT 381 Ford ASSET Electronic Engine Control ........... 4
AMT 382 Ford ASSET Gasoline Engine Performance ...... 3
AMT 383 Ford ASSET Advanced Gasoline Engine ... 3
Performance ............................................................................. 3
A minimum of 3 units from the following:
AMT 498 Work Experience in Automotive Mechanics .... 3
Technology(1 - 4)
AMT 131 Ford ASSET Diesel Engine Performance .......... 3
AMT 340 Emission Control Inspection and Repair .......... 3
WELD 160 Welding Technology for the Automotive Industry .. 1.5
A minimum of 3 units from the following:
AMT 498 Work Experience in Automotive Mechanics .... 3
Technology(1 - 4)
Total Units: ............................................................................. 59.5

The Automotive Mechanics Technology (Ford ASSET) Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

See Eligibility Requirements and Enrollment Process Eligibility

CERTIFICATE OF ACHIEVEMENT
Automatic Transmissions/Transaxles (Ford ASSET)
Certificate
CODE #2002

This certificate represents a subset of the Ford Automotive Student Service Education Training (ASSET) Program and is intended for students wishing to specialize in automatic transmissions and transaxles. This certificate is designed to help students develop the skills necessary to efficiently and accurately maintain, diagnose, and service/repair automatic transmissions and transaxles.

Certificate Requirements ......................................................... UNITS
AMT 370 Ford ASSET Automotive Fundamentals and ...... 4
Dealership Practices ................................................................. 4
AMT 371 Ford ASSET Automotive Electrical/Electronic .... 3
Systems .................................................................................. 3
AMT 378 Ford ASSET Automatic Transmissions/Transaxes... 3
AMT 130 Ford ASSET Advanced Automatic Transmission .. 3
Diagnosis .................................................................................. 1.5
A minimum of 3 units from the following:
AMT 498 Work Experience in Automotive Mechanics .... 3
Technology(1 - 4)
Total Units: ............................................................................. 14.5

See Eligibility Requirements and Enrollment Process Eligibility
CERTIFICATE OF ACHIEVEMENT
Automotive Brakes (Ford ASSET) Certificate
CODE #2009

This certificate represents a subset of the Ford Automotive Student Service Education Training (ASSET) Program and is intended for students wishing to specialize in automotive brake systems. This certificate is designed to help students develop the skills necessary to efficiently and accurately maintain, diagnose, and service/repair automotive brake systems.

Certificate Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMT 370</td>
<td>Ford ASSET Automotive Fundamentals and Dealership Practices</td>
<td>4</td>
</tr>
<tr>
<td>AMT 371</td>
<td>Ford ASSET Automotive Electrical/Electronic Systems</td>
<td>3</td>
</tr>
<tr>
<td>AMT 372</td>
<td>Ford ASSET Automotive Brake Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following:

- AMT 498 Work Experience in Automotive Mechanics Technology (1 - 4)

Total Units: 13

See Eligibility Requirements and Enrollment Process Eligibility

CERTIFICATE OF ACHIEVEMENT
Automotive Electrical Systems (Ford ASSET) Certificate
CODE #2003

This certificate represents a subset of the Ford Automotive Student Service Education Training (ASSET) Program and is intended for students wishing to specialize in automotive electrical systems. This certificate is designed to help students develop the skills necessary to efficiently and accurately maintain, diagnose, and service/repair automotive electrical systems.

Certificate Requirements

<table>
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<tbody>
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<td>Ford ASSET Automotive Fundamentals and Dealership Practices</td>
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</tr>
<tr>
<td>AMT 371</td>
<td>Ford ASSET Automotive Electrical/Electronic Systems</td>
<td>3</td>
</tr>
<tr>
<td>AMT 381</td>
<td>Ford ASSET Electronic Engine Control</td>
<td>4</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following:

- AMT 498 Work Experience in Automotive Mechanics Technology (1 - 4)

Total Units: 14

See Eligibility Requirements and Enrollment Process Eligibility

CERTIFICATE OF ACHIEVEMENT
Automotive Engine Performance (Ford ASSET) Certificate
CODE #2005

This certificate represents a subset of the Ford Automotive Student Service Education Training (ASSET) Program and is intended for students wishing to specialize in gasoline engine performance systems. This certificate is designed to help students develop the skills necessary to efficiently and accurately maintain, diagnose, and service/repair gasoline engine performance systems.

Certificate Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMT 371</td>
<td>Ford ASSET Automotive Electrical/Electronic Systems</td>
<td>3</td>
</tr>
<tr>
<td>AMT 381</td>
<td>Ford ASSET Electronic Engine Control</td>
<td>4</td>
</tr>
<tr>
<td>AMT 382</td>
<td>Ford ASSET Gasoline Engine Performance</td>
<td>3</td>
</tr>
<tr>
<td>AMT 383</td>
<td>Ford ASSET Advanced Gasoline Engine Performance</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 13

See Eligibility Requirements and Enrollment Process Eligibility

CERTIFICATE OF PROFICIENCY
Automotive Engine Repair (Ford ASSET) Certificate
CODE #2004

This certificate represents a subset of the Ford Automotive Student Service Education Training (ASSET) Program and is intended for students wishing to specialize in automotive engine repair. This certificate is designed to help students develop the skills necessary to efficiently and accurately maintain, diagnose, and service/repair automotive engines.

Certificate Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>AMT 370</td>
<td>Ford ASSET Automotive Fundamentals and Dealership Practices</td>
<td>4</td>
</tr>
<tr>
<td>AMT 379</td>
<td>Ford ASSET Automotive Engine Repair</td>
<td>3</td>
</tr>
<tr>
<td>AMT 382</td>
<td>Ford ASSET Gasoline Engine Performance</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following:

- AMT 498 Work Experience in Automotive Mechanics Technology (1 - 4)

Total Units: 13

See Eligibility Requirements and Enrollment Process Eligibility

CERTIFICATE OF ACHIEVEMENT
Automotive Heating and Air Conditioning (Ford ASSET) Certificate
CODE #2006

This certificate represents a subset of the Ford Automotive Student Service Education Training (ASSET) Program and is intended for students wishing to specialize in automotive heating and air conditioning systems. This certificate is designed to help students develop the skills necessary to efficiently and accurately maintain, diagnose, and service/repair automotive heating and air conditioning systems.

Certificate Requirements

<table>
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<tr>
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<tbody>
<tr>
<td>AMT 370</td>
<td>Ford ASSET Automotive Fundamentals and Dealership Practices</td>
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<td>AMT 371</td>
<td>Ford ASSET Automotive Electrical/Electronic Systems</td>
<td>3</td>
</tr>
<tr>
<td>AMT 376</td>
<td>Ford ASSET Automotive Heating and Air Conditioning</td>
<td>3</td>
</tr>
<tr>
<td>AMT 379</td>
<td>Ford ASSET Automotive Engine Repair</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 13

See Eligibility Requirements and Enrollment Process Eligibility

CERTIFICATE OF ACHIEVEMENT
Automotive Mechanics Technology (Ford ASSET) Certificate
CODE #2016

The Ford Automotive Student Service Education Training (ASSET) Program is a two-year program in Automotive Mechanics Technology. This program is designed to help students develop the skills necessary to efficiently and accurately maintain, diagnose, and service/repair all major systems of the automobile.

The Ford ASSET Program is a partnership between Cosumnes River College (CRC) and Ford Motor Company. Ford ASSET is the only program that includes an in-dealership cooperative work experience component. Students will rotate between school and the dealership for the duration of the two-year program, giving them invaluable hands-on experience while they learn.

Courses within the Ford ASSET program allow students to earn Service
Technician Specialty Training (STST) certifications from Ford Motor Company in the following areas:
- Electrical Systems
- Brake Systems
- Steering & Suspension
- Climate Control
- Automatic Transmissions
- Gasoline Engine Repair
- Gasoline Engine Performance
- Diesel Engine Repair
- Diesel Engine Performance
- Manual Transmissions

Instructors for this program are Ford STST certified as required by Ford Motor Company standards.

Completion of this certificate also represents completion of a National Automotive Technicians Education Foundation (NATEF) accredited Master Automotive Service Technology (MAST) program. Instructors for this program are Automotive Service Excellence (ASE) certified as required by NATEF standards.

Upon successful completion of this program, students are well qualified for placement as service technicians in Ford and/or Lincoln dealerships. Students may apply units earned by the successful completion of this program to one or more of the specialized certificates as well as the Associate's degree.

Certificate Requirements

**AMT 370** Ford ASSET Automotive Fundamentals and Certificate Requirements

A minimum of 3 units from the following:
- AMT 371 Ford ASSET Automotive Electrical/Electronic Systems
- AMT 372 Ford ASSET Automotive Brake Systems
- AMT 373 Ford ASSET Automotive Cooling Conditioning

A minimum of 3 units from the following:
- AMT 498 Work Experience in Automotive Mechanics Technology(1 - 4)
- AMT 374 Ford ASSET Automotive Suspension and Steering
- AMT 375 Ford ASSET Automotive Wheel Alignment
- AMT 376 Ford ASSET Automotive Heating and Air Conditioning

A minimum of 3 units from the following:
- AMT 377 Ford ASSET Automotive Transmissions/Transaxles
- AMT 378 Ford ASSET Advanced Automatic Transmission Diagnosis
- AMT 379 Ford ASSET Automotive Engine Repair
- AMT 380 Ford ASSET Automotive Manual Drive Train and Axles
- AMT 381 Ford ASSET Electronic Engine Control
- AMT 382 Ford ASSET Gasoline Engine Performance
- AMT 383 Ford ASSET Advanced Gasoline Engine Performance

Total Units: 59.5

See Eligibility Requirements and Enrollment Process Eligibility

**CERTIFICATE OF ACHIEVEMENT**

**Automotive Suspension and Steering (Ford ASSET) Certificate**

**CODE #2007**

This certificate represents a subset of the Ford Automotive Service Education Training (ASSET) Program and is intended for students wishing to specialize in automotive suspension and steering systems. This certificate is designed to help students develop the skills necessary to efficiently and accurately maintain, diagnose, and service/repair automotive suspension and steering systems.

Certificate Requirements

**AMT 370** Ford ASSET Automotive Fundamentals and Certificate Requirements

**AMT 371** Ford ASSET Automotive Electrical/Electronic Systems

**AMT 374** Ford ASSET Automotive Suspension and Steering

**Total Units:** 13

See Eligibility Requirements and Enrollment Process Eligibility

**CERTIFICATE OF ACHIEVEMENT**

**Manual Drive Train and Axles (Ford ASSET) Certificate**

**CODE #2008**

This certificate represents a subset of the Ford Automotive Service Education Training (ASSET) Program and is intended for students wishing to specialize in manual transmissions/transaxles, drive trains, and axles. This certificate is designed to help students develop the skills necessary to efficiently and accurately maintain, diagnose, and service/repair manual transmissions/transaxles, drive trains, and axles.

Certificate Requirements

**AMT 370** Ford ASSET Automotive Fundamentals and Certificate Requirements

**AMT 378** Ford ASSET Automatic Transmissions/Transaxles

**AMT 385** Ford ASSET Automotive Manual Drive Train and Axles

A minimum of 3 units from the following:
- AMT 498 Work Experience in Automotive Mechanics Technology(1 - 4)

Total Units: 11.5

See Eligibility Requirements and Enrollment Process Eligibility
AMT 295  
Independent Studies in Automotive Mechanics Technology  1 - 3 Units  
Hours: 54 - 162 hours LAB  
Prerequisite: None.  
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 300  
Automotive Fundamentals and Shop Procedures  4 Units  
Hours: 72 hours LEC  
Prerequisite: None.  
Course Transferable to CSU  
This course includes a basic study of vehicles and their mechanical systems including vehicle purchase, vehicle maintenance, vehicle safety systems and the principles and operation of the automotive engine, engine support systems, the drive train, steering, suspension and brakes. This class also explores consumers legal rights concerning vehicle purchase, repair, replacement and recalls. 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  
Hours: 54 hours LEC  
Prerequisite: None.  
Course Transferable to CSU  
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  
Hours: 45 hours LEC; 81 hours LAB  
Prerequisite: None.  
Advisory: AMT 300  
Course Transferable to CSU  
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  
Hours: 36 hours LEC; 54 hours LAB  
Prerequisite: None.  
Advisory: AMT 300  
Course Transferable to CSU  
This course covers the principles of operations of automotive power trains, including diagnosis and overhaul techniques of clutches, manual transmission/transaxles, transfer cases, drive lines and differentials.
AMT 305
Survey of Alternative Fueled & Hybrid Vehicles 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: AMT 300
Course Transferable to CSU
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: AMT 300, 306, or 322 with a grade of “C” or better
Advisory: AMT 303
Course Transferable to CSU
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 314
Wheel Alignment 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: AMT 300
Course Transferable to CSU
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 321
Advanced Automotive Electrical & Hybrid Vehicle Systems 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: AMT 303 with a grade of “C” or better
Course Transferable to CSU
This course is a study of the principles of electronic systems serviced by the automotive technician. Construction and function of automotive electronic components and systems will be discussed, including general system diagnosis, driver information systems, vehicle communication networks, hybrid vehicle propulsion technology and controls, and electronic accessory systems.

AMT 322
Engine Repair 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: AMT 300 and 306
Course Transferable to CSU
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: AMT 303 with a grade of “C” or better
Advisory: AMT 310
Course Transferable to CSU
This course focuses on the theory and 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 and operation, and service of intake and exhaust systems, and forced induction systems such as superchargers and turbochargers.

AMT 326
Automotive Heating and Air Conditioning 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Corequisite: AMT 302 or 303
Course Transferable to CSU
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
Light Duty Diesel Engine Performance 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: AMT 303 with a grade of “C” or better
Advisory: AMT 300
Course Transferable to CSU
This course introduces the student to 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.

AMT 330
Automatic Transmissions/Transaxles 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: AMT 300 and 304
Course Transferable to CSU
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: AMT 303 with a grade of “C” or better
Advisory: AMT 310
Course Transferable to CSU
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 336
Advanced Service Management 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: AMT 301
Course Transferable to CSU
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
Hours: 72 hours LEC; 54 hours LAB
Prerequisite: AMT 303 and 310 with grades of “C” or better; AMT 371 and AMT 381 are included in the Ford ASSET Program and can be utilized to meet requisite requirements in lieu of the standard requisites.
Advisory: AMT 324 and 332
Course Transferable to CSU
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 a SMOG Check Inspector. Upon successful completion of this course, students are eligible to take the State of California SMOG Check Inspector licensing exam and may be eligible to take the State of California SMOG Check Repair Technician licensing exam.

AMT 370
Ford ASSET Automotive Fundamentals and Dealership Practices 4 Units
Hours: 72 hours LEC
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
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 3 Units
Hours: 36 hours LEC; 54 hours LAB
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
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
Hours: 36 hours LEC; 54 hours LAB
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
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 374
Ford ASSET Automotive Suspension and Steering 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: AMT 371 with a grade of “C” or better
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
This course is offered to students enrolled in the Ford Automotive Student Service Education Training (ASSET) program. This course covers theory, diagnosis, and repair of automotive steering and suspension systems. Wheels, tires, and related systems will also be discussed, including power steering systems and electronically controlled steering and suspension systems. Students who successfully complete this course may be eligible for Ford Service Technician Specialty Training (STST) certification.

AMT 375
Ford ASSET Automotive Wheel Alignment 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: AMT 371 with a grade of “C” or better
Corequisite: AMT 374
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
This course is offered to students enrolled in the Ford Automotive Student Service Education Training (ASSET) program. This course covers various automotive wheel alignment equipment and procedures. Wheel alignment diagnosis and repair will be performed as well as maintenance and repair of related systems. Students who successfully complete this course may be eligible for Ford Service Technician Specialty Training (STST) certification.

AMT 376
Ford ASSET Automotive Heating and Air Conditioning 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: AMT 371 with a grade of “C” or better
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
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 heating and air conditioning systems, including air management sub-systems and an overview of engine cooling systems. Proper handling of common automotive refrigerants in accordance with EPA regulations will also be covered. Students who successfully complete this course may be eligible for Ford Service Technician Specialty Training (STST) certification.

AMT 378
Ford ASSET Automatic Transmissions/Transaxles 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: AMT 371 with a grade of “C” or better
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
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 automatic transmissions and transaxles. Proper maintenance and service will also be covered. Students who successfully complete this course may be eligible for Ford Service Technician Specialty Training (STST) certification.

AMT 379
Ford ASSET Automotive Engine Repair 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: AMT 371 with a grade of “C” or better
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
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 engines. Proper maintenance and service will also be covered. Complete engine overhaul procedures will be examined, but the primary focus will be on typical engine repairs. Students who successfully complete this course may be eligible for Ford Service Technician Specialty Training (STST) certification.

AMT 381
Ford ASSET Electronic Engine Control 4 Units
Hours: 63 hours LEC; 27 hours LAB
Prerequisite: AMT 371 with a grade of “C” or better
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
This course is offered to students enrolled in the Ford Automotive Student Service Education Training (ASSET) program. This course is a study of Ford Electronic Engine Control systems, their components, and their relationship to other vehicle systems. Students who successfully complete this course may be eligible for Ford Service Technician Specialty Training (STST) certification.

AMT 382
Ford ASSET Gasoline Engine Performance 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: AMT 371 with a grade of “C” or better
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
This course is offered to students enrolled in the Ford Automotive Student Service Education Training (ASSET) program. This course offers a thorough examination of basic gasoline engine performance systems to include ignition systems, fuel systems, and emission controls. System maintenance, diagnosis, and repair will also be covered, including the use of specialized test equipment. Students who successfully complete this course may be eligible for Ford Service Technician Specialty Training (STST) certification.
AMT 383
Ford ASSET Advanced Gasoline Engine Performance 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: AMT 371 with a grade of “C” or better
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
This course is offered to students enrolled in the Ford Automotive Student Service Education Training (ASSET) program. This course offers an advanced analysis of gasoline engine performance systems to include ignition systems, fuel systems, and emission controls. New technologies and advances in these systems will be highlighted. This course places emphasis on advanced diagnostic techniques, use of specialized test equipment, and diagnostic strategies to be utilized when standard manufacturer’s procedures are unable to properly diagnose or repair the vehicle. Students who successfully complete this course may be eligible for Ford Service Technician Specialty Training (STST) certification.

AMT 385
Ford ASSET Automotive Manual Drive Train and Axles 1.5 Units
Hours: 18 hours LEC; 27 hours LAB
Prerequisite: AMT 371 with a grade of “C” or better
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
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 clutches, manual transmissions and transaxles, transfer cases, drive lines, and differentials. Proper maintenance and service will also be covered. 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
Hours: 54 - 162 hours LAB
Prerequisite: None.

Course Transferable to CSU
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
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
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
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.S.—Biology
A.S.—Biology: Pre-Nursing Option
A.S.—T—Biology

Program Description
What do Ebola, hemophilia, DNA fingerprinting, sequoias, cuttlefish, intertidal zones, and global climate change have in common? These are a few examples of the diverse topics that are explored in Biology, which is the scientific study of living organisms including their structure, function, evolution, and interactions with other organisms and with the environment. The CRC Biology Department offers a variety of courses that are organized into the following three areas:

• General education courses for non-science majors who want to gain an understanding of the biological world (BIOL 300, 307, 310, 342, 350, 352, 390 and 462).
• Clinically related courses for students pursuing careers in nursing and allied health (BIOL 100, 102, 430, 431, 439 and 440).
• The first two years of a Biology major for those transferring to Bachelor Degree programs in fields related to the life sciences (BIOL 400, 410, and 420).

Students who transfer to four-year universities report a very high level of satisfaction with the education they received at CRC.

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.

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. Also, you are strongly encouraged to consult the lower division requirements for the program of the university to which you plan to transfer. 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.

Highlights
The Biology Department is dedicated to providing a rigorous, but supportive and diverse academic experience. We emphasize challenging lecture and laboratory courses where instructors work closely with students to help them reach their goals. We strive to:

• Understand the diverse backgrounds, learning styles, and challenges of community college students.
• Use innovative teaching that encourages critical thinking, student success, and lifelong learning.
• Provide extensive laboratory experiences so that students can learn the process of science.
• Offer day and evening sections for our pre-nursing and pre-allied health courses, with online offerings for pre-allied health courses.
• Offer stimulating courses in human cadaver dissection and intertidal ecology.

Students can increase their leadership and academic skills by participating in MESA (Math, Science, and Engineering Achievement Program), which provides field trips, career counseling, tutoring, and camaraderie.

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.
ASSOCIATE DEGREES  
A.S.-T. in Biology  
CODE #2012

**Program Description:**  
The Associate in Science in Biology for Transfer Degree is designed to prepare students for a seamless transfer into the CSU system to complete a baccalaureate degree in Biology or a similar major.  Students with this degree will receive priority admission with junior status to the California State University system. The Associate in Science in Nutrition and Dietetics for Transfer is comprised of lower division coursework typically required by CSU institutions. Students must complete the following Associate Degree for Transfer requirements (Pursuant to SB1440, §66746):

- Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University.
- The Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
- Obtaining of a minimum grade point average of 2.0.
- A grade of “C” or better in all courses required for the major or area of emphasis.

Completion of the AS-T degree may not prepare students to transfer to University of California biology programs that may have different requirements. If a student intends to transfer to University of California, additional courses in chemistry, physics, and math may be required.

**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 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 a student’s 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, because many universities require more lower division courses than those in this degree. Even the CSUs that accept this transfer degree may likely require additional lower division courses to achieve the Bachelor degree. It is critical that students meet with a CRC counselor to select and plan the courses for the major, as programs vary widely in terms of the required preparation.

**DEGREE REQUIREMENTS** .......................................................... UNITS  
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BIOL 400</td>
<td>Principles of Biology</td>
<td>5</td>
</tr>
<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 400</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 401</td>
<td>General Chemistry II</td>
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<tr>
<td>MATH 350</td>
<td>Calculus for the Life and Social Sciences I (3)</td>
<td>3 - 5</td>
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<td>or MATH 400</td>
<td>Calculus I (5)</td>
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<tr>
<td>PHYS 350</td>
<td>General Physics</td>
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<tr>
<td>PHYS 360</td>
<td>General Physics</td>
<td>4</td>
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<tr>
<td><strong>Total Units:</strong></td>
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<td><strong>36 - 38</strong></td>
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</table>

**Associate in Science for Transfer Degree**
The Associate in Science in Biology for Transfer (AS-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) the Intersegmental General Education Transfer Curriculum for Science, Technology, Engineering, and Mathematics (IGETC for STEM).

A.S. in Biology: Biological Sciences, Biology Concentration Option  
CODE #1451

**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. 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.

**DEGREE REQUIREMENTS** .......................................................... UNITS  
<table>
<thead>
<tr>
<th>Course</th>
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<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 400</td>
<td>Principles of Biology</td>
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<tr>
<td>BIOL 410</td>
<td>Principles of Botany</td>
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<td>BIOL 420</td>
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<td>CHEM 400</td>
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<td>CHEM 401</td>
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<td>MATH 350</td>
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<td>5 - 10</td>
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<tr>
<td>or MATH 400</td>
<td>Calculus I (5)</td>
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<tr>
<td>PHYS 350</td>
<td>General Physics</td>
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<td>PHYS 360</td>
<td>General Physics</td>
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<td><strong>Total Units:</strong></td>
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**A.S. in Biology: Pre-Nursing Option**  
CODE #1451

**DEGREE REQUIREMENTS** .......................................................... UNITS  
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<td>BIOL 440</td>
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<tr>
<td>BIOL 430</td>
<td>Anatomy and Physiology</td>
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<tr>
<td>BIOL 431</td>
<td>Anatomy and Physiology</td>
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<td>CHEM 305</td>
<td>Introduction to Chemistry (5)</td>
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<tr>
<td>or CHEM 309</td>
<td>Introduction to Organic and Biological Chemistry (5)</td>
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<tr>
<td>PHYS 324</td>
<td>Human Development: A Life Span</td>
<td>3</td>
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<tr>
<td>PSYC 300</td>
<td>General Principles (3)</td>
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<tr>
<td>or PSYC 320</td>
<td>Social Psychology (3)</td>
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<tr>
<td><strong>Total Units:</strong></td>
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<td><strong>29 - 31</strong></td>
</tr>
</tbody>
</table>

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.

--- Continued on next page ---
Associate Degree
The Biology: Pre-Nursing Option Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

A.S. in Biology
CODE #1451

DEGREE REQUIREMENTS ...........................................-UNITS
BIOL 400 Principles of Biology.................................5
BIOL 410 Principles of Botany................................5
BIOL 420 Principles of Zoology..............................5
CHEM 400 General Chemistry I..............................5
CHEM 401 General Chemistry II............................5
CHEM 420 Organic Chemistry I................................5
CHEM 421 Organic Chemistry II.........................5
MATH 350 Calculus for the Life and
Social Sciences I (3)........................................6 - 10
and MATH 351 Calculus for the Life and
Social Sciences I (3)
or MATH 355 Calculus for Biology and Medicine I (4)
and MATH 356 Calculus for Biology and Medicine II (4)
or MATH 400 Calculus I (5)
and MATH 401 Calculus II (5)
Total Units: ..........................................................41 - 45

Associate Degree
The Biology: A.S. Degree Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

A.S. in General Science
Please see page 373 for more information

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**BIOLOGY (BIOL)**

**BIOL 100**
Introduction to Concepts of Human Anatomy and Physiology 3 Units
Hours: 54 hours LEC
Prerequisite: None.
General Education: AA/AS Area IV

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
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: None.
General Education: AA/AS Area IV

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
Hours: 54 - 162 hours LAB
Prerequisite: None.

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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ESLR 320 and ESLW 310, OR ESL 325 with a grade of C or better; OR eligibility for ENGRD 310 AND ENGW 101.
Course Transferable to CSU; UC (Transfer Credit Limitations: 1) BIOL 300, 307 and 310 combined: maximum transfer credit is one course; 2) No credit for BIOL 300 or 307 if taken after BIOL 400, 420, 430, or 431) General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B

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 cell structure and chemistry, metabolism, Mendelian and molecular genetics, genetic engineering, anatomy and physiology of humans, evolution, and ecology. Students interested in a general elective biology course are strongly advised to take either BIOL 300, BIOL 307, or BIOL 310 since some transfer institutions will provide credit for only one of the three courses.

**BIOL 307**
Biology of Organisms 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: ESLR 320 and EL351 310, OR ESL 325 with a grade of C or better; OR eligibility for ENGRD 310 AND ENGW 101.
Course Transferable to CSU; UC (Transfer Credit Limitations: 1) BIOL 300, 307 and 310 combined: maximum transfer credit is one course; 2) No credit for BIOL 300 or 307 if taken after BIOL 400, 420, 430, or 431) General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C

This is a general biology course focusing on a survey of the plant and animal kingdoms with an emphasis on evolution and biodiversity. 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, biotechnology, population growth and regulation, ecosystem ecology, and conservation biology. The course is designed for non-science majors and is especially useful for liberal studies, elementary education, environmental studies, recreation, and similar majors. Students interested in a general elective biology course are strongly advised to take either BIOL 300, BIOL 307, or BIOL 310 since some transfer institutions will provide credit for only one of the three courses.
BIOL 308
Contemporary Biology 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ESLR 320 and ESLW 310, OR ESL 325 with a grade of C or better; OR eligibility for ENGRD 310 AND ENGWR 101.
General Education: AA/AS Area IV (effective Summer 2019)

This course is a survey of biological science intended to equip the student to think and act intelligently with respect to contemporary issues in biology. Biological topics are introduced in a framework of natural selection. The course is for those not intending to major in biological sciences, particularly liberal studies majors. Genetics is a significant focus of the course, as are origin of cellular life, cellular physiology, and diversity of organisms. An optional laboratory illustrating these introduced principles is offered as a separate, one-unit course (BIOL 309).

BIOL 309
Contemporary Biology Laboratory 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Corequisite: BIOL 308; BIOL 308 may be taken during a previous semester. Grade of “C” or better required if taken previously.
Advisory: ESLR 320 and ESLW 310, OR ESL 325 with a grade of C or better; OR eligibility for ENGRD 310 AND ENGWR 101.

This course is an optional laboratory accompaniment to BIOL 308. The sessions will illustrate biological phenomena and their relationship to contemporary concerns and discoveries in biology.

BIOL 310
General Biology 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: ESLR 320 and ESLW 310, OR ESL 325 with a grade of C or better; OR eligibility for ENGRD 310 AND ENGWR 101.
Course Transferable to CSU; UC (Transfer Credit Limitations: 1) BIOL 300, 307 and 310 combined: maximum transfer credit is one course; 2) No credit for BIOL 310 if taken after BIOL 400.
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C

This is a survey of biological science with an emphasis on human biology. This course is intended for non-science majors. 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. Students interested in a general elective biology course are strongly advised to take either BIOL 300, BIOL 307 or BIOL 310 since some transfer institutions will provide credit for only one of the three courses.

BIOL 342
The New Plagues: New and Ancient Infectious Diseases Threatening World Health 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGRD 312 and ENGWR 101, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B

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.

BIOL 350
Environmental Biology 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGRD 312 and ENGWR 101; or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B2

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.

BIOL 352
Conservation Biology 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B

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 390
Natural History Field Study 0.5 - 4 Units
Hours: 3 - 24 hours LEC; 18 - 144 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC

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. Lodging or campsites and some camping equipment will be provided. Students must provide their own food and some additional camping equipment. This course is ideal for future teachers, parents, resource management majors and those interested in the biological sciences.
Biology

Biol 400
Principles of Biology 5 Units
Hours: 54 hours LEC; 108 hours LAB
Prerequisite: Chem 400 OR Chem 305 with a grade of “C” or better AND Intermediate Algebra (Math 120 or Math 125 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process)
Advisory: ESLR 320 and ESLW 320, OR ESL 325 with a grade of “C” or better; OR eligibility for ENGRD 310 AND ENGRW 300.
Course Transferable to CSU; UC (1) No credit for BIOL 300 or 307 if taken after BIOL 400, 420, 430, or 431;
2) No credit for BIOL 310 if taken after BIOL 400;
3) No transfer credit for BIOL 462, if taken after BIOL 400
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
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. (C-ID BIOL 190; C-ID BIOL 135S)

Biol 410
Principles of Botany 5 Units
Hours: 54 hours LEC; 108 hours LAB
Prerequisite: BIOL 400 with a grade of “C” or better
Advisory: ESLR 320 and ESLW 320, OR ESL 325 with a grade of “C” or better; OR eligibility for ENGRD 310 AND ENGRW 300.
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
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 field trip may be required. (C-ID BIOL 155; C-ID BIOL 130S; C-ID BIOL 135S)

Biol 420
Principles of Zoology 5 Units
Hours: 54 hours LEC; 108 hours LAB
Prerequisite: BIOL 400 with a grade of “C” or better
Advisory: ESLR 320 and ESLW 320, OR ESL 325 with a grade of “C” or better; OR eligibility for ENGRD 310 AND ENGRW 300.
Course Transferable to CSU; UC (1) No credit for BIOL 300 and 307 if taken after BIOL 400, 420, 430, or 431
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
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. A field trip may be required. (C-ID BIOL 150; C-ID BIOL 130S; C-ID BIOL 135S)

Biol 430
Anatomy and Physiology 5 Units
Hours: 54 hours LEC; 108 hours LAB
Prerequisite: CHEM 305, 309, or 400 with a grade of “C” or better
Course Transferable to CSU; UC (Transfer Credit Limitations: No credit for BIOL 300 and 307 if taken after BIOL 400, 420, 430, or 431)
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
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. (Part of C-ID BIOL 115S)

Biol 431
Anatomy and Physiology 5 Units
Hours: 54 hours LEC; 108 hours LAB
Prerequisite: BIOL 430 with a grade of “C” or better
Course Transferable to CSU; UC (1) BIOL 300, 307 and 310 combined; maximum transfer credit is one course; no credit for BIOL 300 and 307 if taken after BIOL 400, 420, 430, or 431
General Education: CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
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. (Part of C-ID BIOL 115S)

Biol 439
Human Cadaver Dissection 1 Unit
Hours: 12 hours LEC; 18 hours LAB
Prerequisite: None.
Advisory: BIOL 420 or 430 with a grade of “C” or better
Course Transferable to CSU; UC
The Human Cadaver Dissection course is a one-credit, intensive course for nursing, medical, physical therapy, sonography, chiropractic, or other health-related majors. Using a regional approach, students will study the structure of the human body through the dissection of cadavers. Students will gain experience in dissection techniques, more fully understand relationships between organs, and discuss physiological concepts as they pertain to anatomy. Maintaining a detailed lab notebook is an integral part of the course. This course may be taken one time for credit.

Biol 440
General Microbiology 4 Units
Hours: 54 hours LEC; 72 hours LAB
Prerequisite: CHEM 305, 309, or 400 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; IGETC Area 5B; IGETC Area 5C
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC (Transfer Credit Limitation: No transfer credit for BIOL 462 if taken after BIOL 400)
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B
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 485
Honors Seminar in Genetics 3 Units
Same As: HONOR 385
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B
This course offers honors students the opportunity to study, critique, and discuss advanced topics in genetics such as genetically modified foods, whole-genome rapid sequencing, gene therapies for human disease, and a variety of reproductive technologies. Furthermore, 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. Students will engage with each other to discuss ethical, legal and social issues during class discussions, and analyze scientific literature in written reports. 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 385. This course, under either name, may be taken a total of one time for credit.

BIOL 490
Science Skills and Applications 0.5 Unit
Hours: 27 hours LAB
Prerequisite: None.
Corequisite: Current enrollment in a science course (designated by ASTR, BIOL, CHEM, GEOG, GEOL, PHYS, or PS).
Course Transferable to CSU
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
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
General Education: AA/AS Area Ill(b)
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 labs
- 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

ASSOCIATE DEGREE
A.A. in Broadcast Journalism

CODE #1057

DEGREE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTVF 300</td>
<td>Mass Media and Society</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 300</td>
<td>Newswriting and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 331</td>
<td>Beginning Television Studio Production</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 362</td>
<td>Digital Non-Linear Video Editing</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 330</td>
<td>Beginning Single Camera Production</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 312</td>
<td>Beginning Radio Production</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 370</td>
<td>Broadcast Writing &amp; Announcing</td>
<td>3</td>
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<tr>
<td>RTVF 380</td>
<td>Broadcast Journalism</td>
<td>3</td>
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A minimum of 6 units from the following:

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<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>JOUR 351</td>
<td>Public Relations Writing and Media Techniques</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 410</td>
<td>College Media Production I</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 315</td>
<td>Voice and Diction for Broadcasting</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 319</td>
<td>Beginning Audio Production</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 360</td>
<td>Introduction to Motion Graphics:</td>
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<tr>
<td></td>
<td>Adobe After Effects</td>
<td>3</td>
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<tr>
<td>RTVF 376</td>
<td>Advertising</td>
<td>3</td>
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<tr>
<td>RTVF 496</td>
<td>Work Experience in Radio, Television and Film</td>
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<tr>
<td>PHOTO 301</td>
<td>Beginning Photography</td>
<td>3</td>
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<tr>
<td>COMM 480</td>
<td>Honors Seminar: Political Campaign Communication</td>
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</tbody>
</table>

Total Units: 30

Associate Degree
The Broadcast Journalism Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
DEGREE
A.S.—Building Inspection Technology

CERTIFICATE OF ACHIEVEMENT
Building Inspection Technology

See also:
Green Buildings: Environmental Design, Energy
Management and Performance Based Construction
(Architecture Program)

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

ASSOCIATE DEGREE
A.S. in Building Inspection Technology
CODE #1045

DEGREE REQUIREMENTS .................................................... UNITS
BIT 100 Introduction to the International Building Code ......3
BIT 101 Introduction to the International Residential Code (3) ......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 Residential Electrical Code Requirements ........3
CMT 310 Materials of Construction ................................3

A minimum of 18 units from the following:
BIT 102 Plan 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 Commercial Electrical Code Requirements (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 (3)

Total Units: ........................................................................39

Associate Degree
The Building Inspection Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Building Inspection Technology Certificate
CODE #1045

CERTIFICATE REQUIREMENTS ......................................... UNITS
BIT 100 Introduction to the International Building Code ......3
BIT 101 Introduction to the International Residential Code (3) 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 Residential Electrical Code Requirements ........3
CMT 310 Materials of Construction ................................3

A minimum of 12 units from the following:
BIT 102 Plan 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 Commercial Electrical Code Requirements (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 (3)

Total Units: ........................................................................33
CERTIFICATE OF ACHIEVEMENT

Green Buildings Certificate

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.

CERTIFICATE REQUIREMENTS ...........................................UNITS
ARCH 342  Introduction to Green Buildings  ...............................3
CMT 310  Materials of Construction .........................................3
A minimum of 12 units from the following:
ARCH 332  Design Awareness (3)
ARCH 334  Advanced Design in Three Dimensions (3)
ADT 320  Architectural Design Technology - Building Information Modeling (BIM) I (3)
ADT 322  Architectural Design Technology - Building Information Modeling (BIM) II (3)
BIT 150  California Energy Code – Building Energy Efficiency Standards (3)
CONST 143  Photovoltaic Systems (3)
ECON 306  Environmental Economics (3)
GEOG 302  Environmental Studies & Sustainability (3)
GEOG 305  Global Climate Change (3)
GEOG 306  Weather and Climate (3)

Total Units: ........................................................................ 18

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BUILDING INSPECTION TECHNOLOGY (BIT)

BIT 100
Introduction to the International Building Code  3 Units
Hours: 54 hours LEC
Prerequisite: None.
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
Hours: 54 hours LEC
Prerequisite: None.
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
Plan Reading and Non-Structural Plan Review  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ADT 300 and BIT 100
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: BIT 100 and CMT 300
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
Hours: 54 hours LEC
Prerequisite: None.
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: BIT 100
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: BIT 100
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: CMT 300
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: CMT 300
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  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: BIT 100  
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 140  
Residential Electrical Code Requirements  3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: BIT 100  
This course includes review of basic electricity and electrical principles for building inspection. This course is limited to the electrical code requirements for residential structures. The course will cover the use and interpretation of the electrical requirements found in the International Residential Code, legal and administrative enforcement procedures, field inspection techniques and procedures, methods and techniques used in electrical installations and emerging technologies.

BIT 141  
Commercial Electrical Code Requirements  3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: BIT 140  
This course is an in-depth study of the National Electrical Code (NEC) as it relates to commercial and industrial construction and includes 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 commercial and industrial installations.

BIT 150  
California Energy Code – Building Energy Efficiency Standards  3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
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  
Hours: 45 hours LEC; 27 hours LAB  
Prerequisite: None.  
Advisory: BIT 150  
This course is an introduction to the California Home Energy Rating System (HERS) and prepares students to obtain certification as a HERS 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  3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
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 continues to evolve with each new code cycle. 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. Understand and apply the voluntary measures found in the California Green Building Standards Code.

BIT 295  
Independent Studies in Building Inspection Technology 1 - 3 Units  
Hours: 54 - 162 hours LAB  
Prerequisite: None.  
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.

BIT 298  
Work Experience in Building Inspection Technology  1 - 4 Units  
Hours: 60 - 300 hours LAB  
Prerequisite: None.  
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Building Inspection Technology.  
General Education: AA/AS Area III(b)  
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
DEGREES
A.S.-T—Business Administration for Transfer
A.A.—Business, General
A.A.—Business, Small Business Management/Entrepreneurship
A.A.—Restaurant and Food Service Entrepreneurship

CERTIFICATES OF ACHIEVEMENT
Business, General
Business, Office Assistant
Business, Small Business Management/Entrepreneurship

CERTIFICATES OF PROFICIENCY
Entrepreneurship

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 to serve 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

Career Opportunities

| Account Executive | Analyst
| Bank Employee | Buyer
| Clerk | Data-Entry Clerk
| Data-Entry Specialist | Entrepreneur
| Financial Planner | Government Service
| Insurance Representative | Investment Counselor
| Manager Marketing | Market Research
| Office Assistant | Public Administration
| Purchasing Agent | Real Estate
| Retail/Industrial Sales | Stockbroker
| Tax Consultant |

There are some self-employment opportunities available in these fields. Some Career 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
ASSOCIATE DEGREES

A.S.-T. in Business Administration

CODE #1976

The Associate in Science in Business Administration for Transfer degree provides students with a major that fulfills the general requirements of the California State University for transfer to baccalaureate degree programs in business administration. Students with this degree will receive priority admission with junior status to the California State University system. The Associate in Science in Business Administration for Transfer is comprised of lower division coursework typically required by CSU institutions. Students must complete the following Associate Degree for Transfer requirements (Pursuant to SB1440, §66746):

- 60 semester or 90 quarter CSU-transferable units
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern
- a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district
- obtain a minimum grade point average (GPA) of 2.0
- earn a grade of C or better in all courses required for the major or area of emphasis

Upon successful completion of the Associate in Science in Nutrition and Dietetics for Transfer degree requirements, students will be guaranteed admission to the CSU system with junior status and will not have to repeat lower division coursework.

Each California State University may have slightly different requirements for transfer so it is critical for students to work with their counselors to develop individual academic plans.

### DEGREE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 301</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 311</td>
<td>Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ECON 302</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 304</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUS 330</td>
<td>Managing Diversity in the Workplace (3)</td>
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</tr>
<tr>
<td>BUS 300</td>
<td>Introduction to Business (3)</td>
<td>3</td>
</tr>
<tr>
<td>BUS 498</td>
<td>Work Experience in Business (1 - 4)</td>
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</tr>
<tr>
<td>CISC 310</td>
<td>Introduction to Computer Information Science (3)</td>
<td></td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing (2)</td>
<td></td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets (2)</td>
<td></td>
</tr>
<tr>
<td>CISA 340</td>
<td>Presentation Graphics (2)</td>
<td></td>
</tr>
<tr>
<td>CISA 308</td>
<td>Exploring Word Processing and Presentation Software (1)</td>
<td></td>
</tr>
<tr>
<td>CISC 308</td>
<td>Exploring Computer Environments and the Internet (1)</td>
<td></td>
</tr>
<tr>
<td>CISA 318</td>
<td>Exploring Spreadsheet Software (1)</td>
<td></td>
</tr>
<tr>
<td>STAT 300</td>
<td>Introduction to Probability and Statistics (4)</td>
<td>4</td>
</tr>
</tbody>
</table>

A minimum of 2 units from the following:

- BUS 498 Work Experience in Business (1 - 4)
- MATH 341 Calculus for Business and Economics (4)
- STAT 300 Introduction to Probability and Statistics (4)

Total Units: 31

### DEGREE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 311</td>
<td>Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 345</td>
<td>Law and Society</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 372</td>
<td>Human Relations and Organizational Behavior (3)</td>
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<tr>
<td>RE 300</td>
<td>California Real Estate Principles (3)</td>
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<tr>
<td>BUS 495</td>
<td>Independent Studies in Business (0.5 - 4)</td>
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<tr>
<td>BUS 498</td>
<td>Work Experience in Business (1 - 4)</td>
<td></td>
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<tr>
<td>CISC 310</td>
<td>Introduction to Computer Information Science (3)</td>
<td></td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing (2)</td>
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<tr>
<td>CISA 308</td>
<td>Exploring Word Processing and Presentation Software (1)</td>
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<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets (2)</td>
<td></td>
</tr>
<tr>
<td>CISA 320</td>
<td>Introduction to Database Management (1)</td>
<td></td>
</tr>
</tbody>
</table>

Total Units: 31

*Students may select ECON 310 or STAT 300, but not both.

### Associate Degree

The Business, General Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
### A.A. in Business, Small Business Management/Entrepreneurship

**CODE #1254**

**DEGREE REQUIREMENTS** ......................................................... UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 301</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ECON 302</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MKT 300</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 215</td>
<td>Entrepreneurial Opportunity and Business Planning</td>
<td>3</td>
</tr>
<tr>
<td>BUS 350</td>
<td>Small Business Management/Entrepreneurship</td>
<td>3</td>
</tr>
</tbody>
</table>

**A minimum of 6 units from the following:**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<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 320</td>
<td>Concepts in Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>ECON 304</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MKT 310</td>
<td>Selling Professionally</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 362</td>
<td>Techniques of Management</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 310</td>
<td>Introduction to Computer Information Science</td>
<td>3</td>
</tr>
<tr>
<td>CISA 305</td>
<td>Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 308</td>
<td>Exploring Word Processing and Presentation Software</td>
<td>1</td>
</tr>
<tr>
<td>CISA 315</td>
<td>Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>CISA 320</td>
<td>Introduction to Database Management</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units:** ................................................................. 31

**Associate Degree**

The Business, Small Business Management/Entrepreneurship Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

### A.A. in Restaurant and Food Service Entrepreneurship

**CODE #2002**

This program provides training and education for those wishing to own a restaurant or other food service venture. The various elements involved in starting and operating a small business are covered as well as training in food theory and production, safety and sanitation, culinary purchasing, and service.

**DEGREE REQUIREMENTS** ......................................................... UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAM 300</td>
<td>Introduction to Culinary Arts Management</td>
<td>2</td>
</tr>
<tr>
<td>CAM 301</td>
<td>Food Theory and Preparation</td>
<td>3</td>
</tr>
<tr>
<td>CAM 303</td>
<td>Food Product Identification</td>
<td>4</td>
</tr>
<tr>
<td>CAM 306</td>
<td>Culinary Sanitation &amp; Safety</td>
<td>2</td>
</tr>
<tr>
<td>CAM 310</td>
<td>Quantity Food Production</td>
<td>3</td>
</tr>
<tr>
<td>CAM 320</td>
<td>Culinary Management</td>
<td>2</td>
</tr>
<tr>
<td>CAM 322</td>
<td>Culinary Customer Service</td>
<td>2</td>
</tr>
<tr>
<td>CAM 332</td>
<td>Culinary Financial Management</td>
<td>2</td>
</tr>
<tr>
<td>CAM 334</td>
<td>Culinary Marketing</td>
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</tr>
<tr>
<td>BUS 215</td>
<td>Entrepreneurial Opportunity and Business Planning</td>
<td>3</td>
</tr>
<tr>
<td>BUS 300</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUS 350</td>
<td>Small Business Management/Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>MKT 300</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 301</td>
<td>Financial Accounting (4)</td>
<td>3 - 4</td>
</tr>
<tr>
<td>or BUS 320</td>
<td>Concepts in Personal Finance (3)</td>
<td>3</td>
</tr>
<tr>
<td>NUTRI 300</td>
<td>Nutrition</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units:** ................................................................. 42 - 43

**Associate Degree**

The Restaurant and Food Service Entrepreneurship Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
### CERTIFICATE OF ACHIEVEMENT
**Business, General Certificate**
**CODE #2019**

The Certificate of Achievement in Business provides an overview of the various disciplines in business. It is intended to meet the needs of students who wish to develop, retrain or upgrade skills for work in a business setting. Students wanting to earn the A.A. degree in Business, General, can do so by taking additional courses beyond the 18 units required in this certificate. Please seek advice from your counselor to verify the correct courses to take towards the A.A degree.

<table>
<thead>
<tr>
<th>CERTIFICATE REQUIREMENTS</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 300 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 340 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>MKT 300 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>ECON 302 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 301 Financial Accounting</td>
<td>4</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 350 Small Business Management/Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>BUS 320 Concepts in Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BUS 330 Managing Diversity in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>ECON 304 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>CISC 310 Introduction to Computer Information Science</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units:** 19

### CERTIFICATE OF ACHIEVEMENT
**Business, Office Assistant Certificate**
**CODE #1492**

This Certificate of Achievement is designed to provide students with general knowledge in business and an in-depth knowledge of a variety of business technology applications. Program topics include: keyboarding/word processing, integrated office applications, organization and supervision of office activities, office procedures, and business communications.

<table>
<thead>
<tr>
<th>CERTIFICATE REQUIREMENTS</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSTEC 101 Computer Keyboarding: 10-Key</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 120 Skills for Today’s Office</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 303 Computer-Keyboard Formatting</td>
<td>2</td>
</tr>
<tr>
<td>BUSTEC 304 Computer-Keyboard Speed-and-Accuracy Building</td>
<td>2</td>
</tr>
<tr>
<td>CISA 305 Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 315 Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>CISC 302 Computer Familiarization</td>
<td>2</td>
</tr>
<tr>
<td>BUS 100 English for the Professional</td>
<td>3</td>
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</table>

A minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 300 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 310 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>CISC 310 Introduction to Computer Information Science</td>
<td>3</td>
</tr>
<tr>
<td>CISA 340 Presentation Graphics</td>
<td>2</td>
</tr>
<tr>
<td>CISA 318 Exploring Spreadsheet Software</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units:** 19

### CERTIFICATE OF PROFICIENCY
**Entrepreneurship Certificate**
**CODE #1999**

This certificate is designed for current and potential entrepreneurs. It provides an introductory and organized course of study that enables students to develop their entrepreneurial skills, recognize opportunities, and learn the basics of starting and managing a small business.

<table>
<thead>
<tr>
<th>CERTIFICATE REQUIREMENTS</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 215 Entrepreneurial Opportunity and Business Planning</td>
<td>3</td>
</tr>
<tr>
<td>BUS 300 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 350 Small Business Management/Entrepreneurship</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units:** 9

### CERTIFICATE OF ACHIEVEMENT
**Small Business Management/Entrepreneurship Certificate**
**CODE #1254**

The Certificate of Achievement in Small Business Management/Entrepreneurship is designed for current and potential entrepreneurs. It provides an introductory and organized course of study that enables students to develop their entrepreneurial skills, recognize opportunities, and learn the various aspects of starting and managing a small business. Students wanting to earn the A.A degree in Small Business Management/Entrepreneurship can do so by taking additional courses beyond the 18 units required for this certificate. Please seek advice from your counselor to verify the correct courses to take towards the A.A degree.

<table>
<thead>
<tr>
<th>CERTIFICATE REQUIREMENTS</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 215 Entrepreneurial Opportunity and Business Planning</td>
<td>3</td>
</tr>
<tr>
<td>BUS 300 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 350 Small Business Management/Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 301 Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 310 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 320 Concepts in Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>CISC 310 Introduction to Computer Information Science</td>
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A minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 301 Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 310 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 320 Concepts in Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>CISC 310 Introduction to Computer Information Science</td>
<td>3</td>
</tr>
<tr>
<td>ECON 304 Principles of Microeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units:** 18

### CERTIFICATE OF ACHIEVEMENT
**Business, Office Assistant Certificate**
**CODE #1492**

This Certificate of Achievement is designed to provide students with general knowledge in business and an in-depth knowledge of a variety of business technology applications. Program topics include: keyboarding/word processing, integrated office applications, organization and supervision of office activities, office procedures, and business communications.

<table>
<thead>
<tr>
<th>CERTIFICATE REQUIREMENTS</th>
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</tr>
<tr>
<td>BUSTEC 120 Skills for Today’s Office</td>
<td>1</td>
</tr>
<tr>
<td>BUSTEC 303 Computer-Keyboard Formatting</td>
<td>2</td>
</tr>
<tr>
<td>BUSTEC 304 Computer-Keyboard Speed-and-Accuracy Building</td>
<td>2</td>
</tr>
<tr>
<td>CISA 305 Beginning Word Processing</td>
<td>2</td>
</tr>
<tr>
<td>CISA 315 Introduction to Electronic Spreadsheets</td>
<td>2</td>
</tr>
<tr>
<td>CISC 302 Computer Familiarization</td>
<td>2</td>
</tr>
<tr>
<td>BUS 100 English for the Professional</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 300 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 310 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>CISC 310 Introduction to Computer Information Science</td>
<td>3</td>
</tr>
<tr>
<td>CISA 340 Presentation Graphics</td>
<td>2</td>
</tr>
<tr>
<td>CISA 318 Exploring Spreadsheet Software</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units:** 19

### CERTIFICATE OF PROFICIENCY
**Entrepreneurship Certificate**
**CODE #1999**

This certificate is designed for current and potential entrepreneurs. It provides an introductory and organized course of study that enables students to develop their entrepreneurial skills, recognize opportunities, and learn the basics of starting and managing a small business.

<table>
<thead>
<tr>
<th>CERTIFICATE REQUIREMENTS</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 215 Entrepreneurial Opportunity and Business Planning</td>
<td>3</td>
</tr>
<tr>
<td>BUS 300 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 350 Small Business Management/Entrepreneurship</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units:** 9

### CERTIFICATE OF ACHIEVEMENT
**Small Business Management/Entrepreneurship Certificate**
**COD...
BUSINESS (BUS)

BUS 100
English for the Professional 3 Units
Hours: 54 hours LEC
Prerequisite: ENGRD 110 and ENGW 51 with grades of “C” or better, or ESLR 320 and ESLW 320.
Advisory: BUSTEC 302 and 303
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
Hours: 54 hours LEC
Prerequisite: None.
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 215
Entrepreneurial Opportunity and Business Planning 3 Units
Hours: 54 hours LEC
Prerequisite: None.
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 idea they would like to pursue will benefit from this course.

BUS 295
Independent Studies in Business 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
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 300
Introduction to Business 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
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. (C-ID BUS 110)

BUS 310
Business Communications 3 Units
Hours: 54 hours LEC
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.
Course Transferable to CSU
General Education: AA/AS Area II(a)
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: BUS 100
Course Transferable to CSU
General Education: AA/AS Area V(b)
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D7
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC

This course focuses on the law and its relationship to the environment of business. The course covers the legal system; court process and procedures; alternative dispute resolution; government regulation of business; constitutional law; contracts, both under the common and the Uniform Commercial Code (U.C.C.); torts; business organizations; property rights; and agency and employment law. While covering a broad range of substantive laws related to business, the course also stresses critical thinking and analytical evaluation of legal issues surrounding business including ethics and social responsibility. (C-ID BUS 125)

BUS 345
Law and Society 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC

General Education: AA/AS Area V(b); CSU Area D8; IGETC Area 4G

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.

BUS 350
Small Business Management/Entrepreneurship 3 Units
Hours: 54 hours LEC
Prerequisite: None.

Course Transferable to CSU

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
Hours: 54 hours LEC
Prerequisite: None.

Course Transferable to CSU

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 349
Independent Studies in Business 0.5 - 4 Units
Hours: 27 - 216 hours LAB
Prerequisite: None.

Course Transferable to CSU

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
Hours: 60 - 300 hours LAB
Prerequisite: None.

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

General Education: AA/AS Area III(b)

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.

BUS 499
Experimental Offering in Business .5-4 Units
Prerequisite: None.

Course Transferable to CSU

Hours: 18 hours LEC; 54 hours LAB

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.
BUSINESS TECHNOLOGY (BUSTEC)

BUSTEC 101
Computer Keyboarding: 10-Key 1 Unit
Hours: 18 hours LEC
Prerequisite: None.
This course introduces the numeric keypad and develops the ability to key information into a computer with speed and accuracy.

BUSTEC 110
Business Procedures for Professional Success 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: BUSTEC 302 or equivalent, BUSTEC 303 and BUS 100
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.

BUSTEC 120
Skills for Today’s Office 1 Unit
Hours: 18 hours LEC; 18 hours LAB
Prerequisite: None.
Advisory: BUSTEC 302 or keyboarding speed verification at 25 wpm or better, and CISA 305 and 315.
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.

BUSTEC 299
Experimental Offering in Business Technology .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB

BUSTEC 302
Computer-Keyboarding 2 Units
Hours: 36 hours LEC
Prerequisite: None.
Advisory: ESLR 320
Course Transferable to CSU
General Education: AA/AS Area III(b)
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.

BUSTEC 303
Computer-Keyboard Formatting 2 Units
Hours: 36 hours LEC
Prerequisite: BUSTEC 302 with a grade of “C” or better
Course Transferable to CSU
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.

BUSTEC 304
Computer-Keyboard Speed-and-Accuracy Building 2 Units
Hours: 36 hours LEC
Prerequisite: BUSTEC 302 with a grade of “C” or better
Course Transferable to CSU
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 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 Chemist
Chemical Engineer
Pharmacist
Physical
Chemical Technology
Engineer
Dentist
Veterinarian
Allied Health Professional
Physicist
Bacteriologist
Geochemist
Oceanographer

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

ASSOCIATE DEGREES
A.S. in Chemistry
CODE #1402

This degree is designed to meet common lower division requirements for
a major in chemistry.

DEGREE REQUIREMENTS ............................................. UNITS
CHEM 400 General Chemistry I ........................................... 5
CHEM 401 General Chemistry II ........................................... 5
CHEM 420 Organic Chemistry I ........................................... 5
CHEM 421 Organic Chemistry II .......................................... 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: ...................................................................... 47

Associate Degree
The Chemistry Associate in Science (A.S.) degree may be obtained
by completion of the required program, plus general education
requirements, plus sufficient electives to meet a 60-unit total. See
CRC graduation requirements.

A.S. in General Science
See page 372 for program description.
CHEMISTRY (CHEM)

CHEM 300
Beginning Chemistry 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: MATH 100 or 102 with a grade of “C” or better
Advisory: Completion of or concurrent enrollment in MATH 120.
Course Transferable to CSU; UC (1) No credit for CHEM 300 if taken after 305 or 307)
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
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. (C-ID CHEM 101)

CHEM 305
Introduction to Chemistry 5 Units
Hours: 72 hours LEC; 54 hours LAB
Prerequisite: MATH 100 or 102 with a grade of “C” or better
Course Transferable to CSU; UC (1) CHEM 305, 306, 307, 308, 400, and 401 combined: maximum transfer credit is one series*; 2) No transfer credit for CHEM 305 or 307 if taken after CHEM 400
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
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. (C-ID CHEM 101)

CHEM 306
Introduction to Organic and Biological Chemistry 5 Units
Hours: 72 hours LEC; 54 hours LAB
Prerequisite: CHEM 305 with a grade of “C” or better
Course Transferable to CSU; UC (1) CHEM 305, 306, 307, 308, 400, and 401 combined: maximum transfer credit is one series*
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
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. (C-ID CHEM 102)

CHEM 309
Integrated General, Organic, and Biological Chemistry 5 Units
Hours: 72 hours LEC; 54 hours LAB
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
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
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 309. 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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
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 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 remediating 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
Hours: 54 hours LAB
Prerequisite: None.
Corequisite: CHEM 321
Course Transferable to CSU; UC
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A
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 I 5 Units
Hours: 54 hours LEC; 108 hours LAB
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.
Course Transferable to CSU; UC (1) CHEM 305, 306, 307, 308, 400 and 401 combined: maximum transfer credit is one series*; 2) No transfer credit for CHEM 305 or 307 if taken after CHEM 400)
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
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; Part of C-ID CHEM 120S)

CHEM 401
General Chemistry II 5 Units
Hours: 54 hours LEC; 108 hours LAB
Prerequisite: CHEM 400 with a grade of “C” or better
Course Transferable to CSU; UC (1) CHEM 305, 306, 307, 308, 400, and 401 combined: maximum transfer credit is one series*)
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
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. (Part of C-ID CHEM 120S)

CHEM 420
Organic Chemistry I 5 Units
Hours: 54 hours LEC; 108 hours LAB
Prerequisite: CHEM 401 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
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; Part of C-ID CHEM 160S)

CHEM 421
Organic Chemistry II 5 Units
Hours: 54 hours LEC; 108 hours LAB
Prerequisite: CHEM 420 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
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. (Part of C-ID CHEM 160S)

CHEM 495
Independent Studies in Chemistry 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Chemistry.
Course Transferable to CSU
General Education: AA/AS Area III(b)
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 ACHIEVEMENT
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
Motivational Speaking
Radio & Television
Public Relations
Organizational Administration
Writing for Publication
Customer Service
Corporate Imaging
Marketing
Grant Writing

Human Resources Development
Political Speech Writing
Advertising
College & University Instruction
Negotiation & Mediation Services
Personnel Management
Social Science Research
Campaign Management
Community Relations
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:
  - Dan DuBray (916) 691-7493
  - Georgine Hodgkinson (916) 691-7172
  - Nathan Miller (916) 691-7336
  - Sandra Wheeler Abeyta (916) 691-7309

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 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
ASSOCIATE DEGREE
A.A.-T. in Communication Studies
CODE #1966

The AA for Transfer in Communication Studies 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.

DEGREE REQUIREMENTS ......................................................... UNITS
COMM 301 Introduction to Public Speaking .................. 3
A minimum of 6 units from the following:
COMM 311 Argumentation and Debate (3)
COMM 321 Interpersonal Communication (3)
COMM 331 Group Discussion (3)
A minimum of 6 units from the following:
COMM 315 Persuasion (3)
COMM 325 Intercultural Communication (3)
COMM 331 Group Discussion (3)
COMM 361 The Communication Experience (3)
COMM 363 Introduction to Communication Theory (3)
JOUR 310 Mass Media and Society (3)
or RTVF 300 Mass Media and Society (3)
A minimum of 3 units from the following:
ANTH 310 Cultural Anthropology (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)
COMM 363 Introduction to Communication Theory (3)
ENGWR 301 College Composition and Literature (3)
ENGWR 302 Advanced Composition and Critical Thinking (3)
JOUR 300 Newswriting and Reporting (3)
PSYC 300 General Principles (3)
RTVF 312 Beginning Radio Production (3)
RTVF 331 Beginning Television Studio Production (3)
SOC 300 Introductory Sociology (3)
Total Units: ........................................................................ 18

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 (AA-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth.

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.

A.A. in Communication, Organizational Communication
CODE #1348

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.

DEGREE REQUIREMENTS ......................................................... UNITS
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 363 Introduction to Communication Theory ...... 3
EN 301 College Composition and Literature .............. 3
ENGWR 302 Advanced Composition and Critical Thinking 3
JOUR 310 Mass Media and Society ......................... 3
COMM 341 Organizational Communication ............... 3
COMM 315 Persuasion ........................................... 3
or BUS 330 Managing Diversity in the Workplace ........ 3
or SGVT 315 Dynamics of Leadership .................... 3
ENGWR 300 College Composition ........................... 3
ENGWR 302 Advanced Composition and Critical Thinking 3
or BUS 310 Business Communications ..................... 3
or JOUR 300 Newswriting and Reporting .................. 3
or JOUR 301 Advanced Newswriting and Reporting ...... 3
Total Units: ................................................................. 30

1 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).

Associate Degree
The Communication, Organizational Communication Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF ACHIEVEMENT
Applied Communication Skills Certificate
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.

CERTIFICATE REQUIREMENTS .............................................. UNITS
A minimum of 15 units from the following:1

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 301</td>
<td>Introduction to Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>COMM 311</td>
<td>Argumentation and Debate</td>
<td>3</td>
</tr>
<tr>
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<td>Persuasion</td>
<td>3</td>
</tr>
<tr>
<td>COMM 321</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 325</td>
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</tr>
<tr>
<td>COMM 331</td>
<td>Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>COMM 341</td>
<td>Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 361</td>
<td>The Communication Experience</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: ........................................................................... 15

1It is recommended that one of the courses completed should meet the general education requirement of oral communication, which is either Communication 301, or 331, or 361.

COMMUNICATION STUDIES (COMM)

COMM 301
Introduction to Public Speaking 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGWR 300
Course Transferable to CSU; UC
General Education: AA/AS Area IIB; CSU Area A1; IGETC Area 1C
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
Hours: 54 hours LEC
Prerequisite: ENGWR 300 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: AA/AS Area IIB; CSU Area A3; IGETC Area 1B
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
Hours: 54 hours LEC
Prerequisite: ENGWR 300 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: AA/AS Area IIB; CSU Area A3; IGETC Area 1B
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. As HONOR 341 Persuasion within Social Issues has a similar basis as this course, this course is not open to a student that has received credit for HONOR 341.
COMM 321  
Interpersonal Communication  
3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: ENGWR 51  
Course Transferable to CSU; UC  
General Education: AA/AS Area III(b); CSU Area A1  
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 will 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. Video 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  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: ENGWR 101, or equivalent skills demonstrated through the assessment process.  
Course Transferable to CSU; UC (COMM 325, 331, 361 combined: maximum transfer credit is one course)  
General Education: AA/AS Area III(b); AA/AS Area V; CSU Area D7; IGETC Area 4G  
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  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: Eligibility for ENGWR 300  
Course Transferable to CSU; UC (COMM 325, 331, 361 combined: maximum transfer credit is one course)  
General Education: AA/AS Area III(b); CSU Area A1; IGETC Area 1C  
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 informative and persuasive 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  
Hours: 54 hours LEC  
Prerequisite: ENGWR 101 with a grade of “C” or better  
Course Transferable to CSU  
General Education: AA/AS Area III(b); CSU Area D7  
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  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: Eligibility for ENGWR 300  
Course Transferable to CSU; UC (COMM 325, 331, 361 combined: maximum transfer credit is one course)  
General Education: AA/AS Area III(b); CSU Area A1; IGETC Area 1C  
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  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: ENGWR 101  
Course Transferable to CSU; UC  
General Education: AA/AS Area III(b); CSU Area D7  
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
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 CSU; UC
General Education: AA/AS Area V(b); CSU Area D; IGETC Area 4G
What do pundits, politicians and the public have in common? The ability to impact 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. Distinguish between qualitative and quantitative theoretical approaches in research of political communication.

COMM 482
Honors Seminar: Persuasion within Social Issues 3 Units
Same As: HONOR 341
Prerequisite: ENGWR 300, ENGWR 480, or HONOR 375 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.
Enrollment Limitation: Enrollment is limited to Honors Program students.
Course Transferable to CSU; UC
General Education: CSU Area A3; IGETC Area 1B
This seminar-style course will introduce students to the 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 sophisticated argumentation of essay skills. Essays of advanced composition shall be evaluated for their quality in both critical thinking and composition. The writing assignments will apply theoretical models of critical thinking and communication studies 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. Students explore ethical considerations of persuasive communication, learn about types of reasoning, and identify fallacious arguments as they occur in persuasion. Students will focus on the design and organization of persuasive messages within a speech format for an individual or group presentations for a live audience. This course offers honors students the opportunity to study, critique, discuss and present advanced topics to focus on the impact of persuasive attempts within ethical, social and political issues. Access to a computer with online capabilities may be required and computer access is available on campus. 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. As COMM 315, Persuasion, has a similar basis as this Honors course, this course is not open to a student that has received credit for COMM 315, Persuasion. This course is the same as HONOR 341, and only one may be taken for credit.

COMM 494
Topics in Communication 0.5 - 4 Units
Prerequisite: None.
Course Transferable to CSU
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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 498
Work Experience in Communication and Media Studies 1 - 4 Units
Hours: 60 - 300 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals.
General Education: AA/AS Area III(b)
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.

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, Information Technology
A.S. – Management Information Systems
A.S. – Web Developer

CERTIFICATES OF ACHIEVEMENT
CIS – Computer Programmer – SQL
CIS – Relational Database Administration
CIS – Web Programming
CIS – Server Administrator
CIS – Programming C/C++
CIS – Information Systems Security
CIS – Information Technology
CIS – Business Information Worker
CIS – Database Analyst – SQL
CIS – Web Publishing
CIS – Network Helpdesk Technician
CIS – Database Design
CIS – Object Oriented Software Development
CIS – Linux Systems Administrator
CIS – Cybersecurity

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
Computer Operator Applications Software Specialist
Systems Analyst Programmer
Data Entry Specialist Computer Systems Specialist
Computer Technician Network Administrator
Internet Technician Enterprise Administrator
Server Administrator — Windows or Linux

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 162 for “CIS Curriculum Prerequisite Hierarchy”
ASSOCIATE DEGREES

A.S. in CIS - 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.

DEGREE REQUIREMENTS ................................................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 Assembly Language Programming for Microcomputers ........ 4
CISP 440 Data Structures ......................................................... 3
Total Units: .................................................................................. 22

1 The corequisite for this course can be applied to the CRC graduation requirements.

Suggested Electives:
PHIL 310; BUS 310; COMM 301; MATH 343; CISC 310, CISC 498

Associate Degree
The CIS - Computer Science Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

A.S. in CIS - 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.

DEGREE REQUIREMENTS .................................................UNITS
CISC 310 Introduction to Computer Information Science ........ 3
CISC 498 Work Experience in Computer Information Science - Core ........................................... 1 - 4
CISN 300 Network Systems Administration ................................. 3
CISN 304 Networking Technologies ............................................. 3
CISS 310 Network Security Fundamentals .................................. 3
CISS 320 Implementing Network Security and Counter Measures .......................................................... 3
CISS 330 Implementing Internet Security and Firewalls .................... 3
CISS 341 Implementing Windows Operating System Security (3) .......... 3
or CISS 342 Implementing Linux Operating System Security (3) ........ 3
CISS 350 Disaster Recovery .......................................................... 3
CISS 356 Introduction to Information Assurance .......................... 3
CISS 360 Computer Forensics and Investigation .......................... 3
Total Units: .................................................................................. 31 - 34

Suggested Electives:
PHIL 310; BUS 310; COMM 301; MATH 343; CISC 310, CISC 498

Associate Degree
The CIS - Information Systems Security Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus 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 help 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>
A.S. in CIS - Information Technology

CODE #1998

This degree allows students to acquire basic core Information Technology competencies that will prepare them for a career in Computer Networking, Cybersecurity, and related fields.

**DEGREE REQUIREMENTS** ......................................................**UNITS**
- CISC 310 Introduction to Computer Information Science ........ 3
- CISC 360 Information & Communication Technology Essentials (A+) ............................................. 4
- CISN 304 Networking Technologies ............................................. 3
- CISP 370 Beginning Visual Basic .............................................. 4
  or CISP 360 Introduction to Structured Programming ................. 4

**A minimum of 6 units from the following:**
- CISN 300 Network Systems Administration ............................................. 3
- CISP 351 Introduction to Relational Database Design and SQL ........... 3
- CISS 310 Network Security Fundamentals ............................................. 3
- CISS 356 Introduction to Information Assurance ................................. 3
- CISS 360 Computer Forensics and Investigation ................................. 3
- BUS 310 Business Communications .................................................. 3

**A minimum of 4 units from the following:**
- STAT 300 Introduction to Probability and Statistics ......................... 3
- MATH 341 Calculus for Business and Economics ............................................. 4
- MATH 343 Modern Business Mathematics ............................................. 4
- MATH 400 Calculus I ........................................................................... 5

**Total Units:** .............................................................................. 24

**Associate in Science Degree**

The CIS - Information Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

A.S. in CIS - Server Administrator

CODE #1621

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 transfer institution.

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.

**DEGREE REQUIREMENTS** ......................................................**UNITS**
- CISC 310 Introduction to Computer Information Science ........ 3
- CISC 360 Information & Communication Technology Essentials (A+) ............................................. 4
- CISC 498 Work Experience in Computer Information Science - Core .............................................................................. 1 - 4
- CISS 300 Network Systems Administration ............................................. 3
- CISS 302 Intermediate Network Systems Administration .................. 3
- CISS 304 Networking Technologies ..................................................... 3
- CISS 306 Advanced Network Systems Administration .................. 3
- CISP 370 Beginning Visual Basic .............................................. 4
- CISS 310 Network Security Fundamentals ............................................. 3

A.S. - CIS - Server Administrator continued

**A minimum of 9 units from the following:**
- CISS 342 Implementing Linux Operating System Security (3)
- CISS 341 Implementing Windows Operating System Security (3)
- CISS 350 Disaster Recovery ......................................................... 3
- CISS 360 Computer Forensics and Investigation ................................. 3

**Total Units:** .............................................................................. 36 - 39

*Students interested in Windows should take CISS 301, CISS 374, CISS 378 and CISS 341. Students interested in Linux should take CISS 303 and CISS 342. Students interested in security should take CISS 341 or 342, CISS 350 and CISS 360.

**Associate in Science Degree**

The CIS - Server Administrator Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

A.S. in Management Information Systems

CODE #1074

CRC’s programs in CIS include study in computer programming, information systems security, computer networking, management information systems, and computer applications. A wide range of degree and certificate programs is 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 transfer institution.

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 CSU Sacramento’s lower-division coursework for a BS in Business Administration with a Management Information Systems concentration.

**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.

**DEGREE REQUIREMENTS** ......................................................**UNITS**
- BUS 300 Introduction to Business .................................................. 3
- BUS 340 Financial Accounting ......................................................... 4
- ACCT 301 Business Law ................................................................. 3
- ACCT 311 Managerial Accounting .................................................... 4
- ECON 302 Principles of Macroeconomics ......................................... 3
- ECON 304 Principles of Microeconomics ......................................... 3
- MATH 341 Calculus for Business and Economics (4) ......................... 4
  or MATH 343 Modern Business Mathematics (4)
- MATH 355 Calculus for Biology and Medicine I (4)
  or MATH 400 Calculus I (5)
- STAT 300 Introduction to Probability and Statistics .......................... 4

-Continued on next page-
A.S. in Web Developer
CODE #2000

Web Developers are proficient at creating Web site structure and interactivity. The Web Developer degree requires students to design, code, and modify websites from layout to function, in accordance to a client's specification. Students will work with a variety of tools, environments, and applications to learn and practice website programming, scripting languages, and interacting with databases.

DEGREE REQUIREMENTS .....................................................UNITS
CISW 300 Web Publishing .....................................................3
CISW 304 Cascading Style Sheets .............................. ..............................2
CISC 323 Linux Operating System .............................................1
CISP 353 Application Development in a Client Server Environment .......3
CISW 321 Web Site Development using Dreamweaver ................3
CISW 350 Imaging for the Web .................................................1
CISW 400 Client-side Web Scripting .................................................4
CISW 410 Middleware Web Scripting .................................................4
CISW 440 XML: Introduction to Extensible Markup Language ...................2

A minimum of 5 units from the following:
CISC 324 Intermediate Linux Operating System (1)
CISW 308 Mobile Web Development (2)
CISW 310 Advanced Web Publishing (4)
CISW 355 Web Imaging Projects (2)
CISW 402 Intermediate JavaScript (2)
CISP 350 Database Programming (3)

Total Units: .............................................................................. 28

Associate in Science Degree:
The Web Developer Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Business Information Worker Certificate
CODE #1997

The Business Information Worker Certificate is designed to prepare students for entry-level office and administrative support in a variety of organizations.

CERTIFICATE REQUIREMENTS .................................................UNITS
BUSTEC 302 Computer-Keyboarding .............................................2
BUSTEC 110 Business Procedures for Professional Success ...........3
BUSTEC 120 Skills for Today’s Office .............................................1
CISC 308 Exploring Computer Environments and the Internet .......1
CISA 305 Beginning Word Processing ...........................................2
CISA 315 Introduction to Electronic Spreadsheets ......................2
BUS 100 English for the Professional .........................................3
CISC 310 Introduction to Computer Information Science ............3

Total Units: .............................................................................. 17

CERTIFICATE
Cybersecurity Certificate
CODE #2026

This one-year and fully-online certificate provides graduates with the skills needed to defend networks and information systems against cyber-attacks. Students receive extensive hands-on experience and develops the knowledge and abilities necessary to succeed in protection of an organization's data and operations. It is a rigorous program designed to help students master the fundamentals of cybersecurity by applying industry-accepted and emerging practices to solve real-world security problems. Upon completion of the program, students will be able to evaluate security trends, recognize best practices, and understand Information Technology security products and threats. Some career opportunities associated with this degree include: security analyst, network systems security administrator, security policy analyst, and more.

DEGREE REQUIREMENTS .....................................................UNITS
Quarter 1 (Foundational):
CISC 310 Introduction to Computer Information Science ...........3
CISC 360 Information & Communication Technology Essentials (A+) 4
Quarter 2 (Core):
CISN 304 Networking Technologies .............................................3
CISN 341 CISCO Networking Academy (CCNA)tm: Networking Theory and Routing Technologies ..... 3
Quarter 3 (Core):
CISN 300 Network Systems Administration (3) .........................3
CISS 310 Network Security Fundamentals ..................................3
Quarter 4 (Core):
CISS 316 Cisco Networking Academy™: CCNA Cybersecurity Operations ... 3
CISS 327 Cisco Networking Academy™: CCNA Security: Implementing Network Security ... 3

Total Units: .............................................................................. 26

Enrollment Process
Eligible students are selected for the program according to the following steps:

• First ten students, who have met the enrollment process, are eligible for the program.
CERTIFICATE OF ACHIEVEMENT
CIS - Computer Programmer-SQL Certificate
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. Courses taken towards the completion of the Database Analyst-SQL Certificate may be also be used towards this certificate.

CERTIFICATE REQUIREMENTS ............................................ UNITS
CISC 310 Introduction to Computer Information Science........3
CISC 323 Linux Operating System ..................................5
CISC 324 Intermediate Linux Operating System ....................1
CISP 300 Algorithm Design/Problem Solving ........................3
CISP 351 Introduction to Relational Database Design and 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:
CISP 370 Beginning Visual Basic (4)
or CISA 320 Introduction to Database Management (1)
or CISA 321 Intermediate Database Management (1)

Total Units: ........................................................................19

CERTIFICATE OF ACHIEVEMENT
CIS - Database Analyst-SQL Certificate
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.

CERTIFICATE REQUIREMENTS ............................................ UNITS
CISC 310 Introduction to Computer Information Science........3
CISC 323 Linux Operating System ..................................5
CISC 324 Intermediate Linux Operating System ....................1
CISP 300 Algorithm Design/Problem Solving ........................3
CISP 351 Introduction to Relational Database Design and SQL ...3
CISP 352 Intermediate SQL .............................................3

Total Units: ........................................................................14

CERTIFICATE OF ACHIEVEMENT
CIS - Database Design Certificate
CODE #1545

This certificate aims at preparing the students to understand the entire design, programming methodology and life cycle of databases. 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, SQLServer and or Microsoft Access.

CERTIFICATE REQUIREMENTS ............................................ UNITS
CISC 310 Introduction to Computer Information Science........3
CISP 300 Algorithm Design/Problem Solving ........................3
CISP 351 Introduction to Relational Database Design and SQL ...3
CISP 352 Intermediate SQL .............................................3

A minimum of 4 units from the following:
CISP 350 Database Programming .....................................3
CISP 370 Database Programming .....................................3

Total Units: ........................................................................16

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>
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<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>

CIS - Database Design Certificate continued

CERTIFICATE REQUIREMENTS ............................................ UNITS
CISA 320 Introduction to Database Management ................1
CISA 321 Intermediate Database Management ....................1
CISP 350 Database Programming .....................................3
CISP 356 Relational Database Design and Information Retrieval 3

A minimum of 4 units from the following:
or CISP 370 Object Oriented Programming with C++ (4)
or CISP 360 Introduction to Structured Programming (4)
or CISP 300 Algorithm Design/Problem Solving (3)
or CISC 498 Work Experience in Computer Information Science - Core (1 - 4)

Total Units: ........................................................................24

CERTIFICATE OF ACHIEVEMENT
CIS - Information Systems Security Certificate
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.

CERTIFICATE REQUIREMENTS ............................................ UNITS
CISC 310 Introduction to Computer Information Science ........3
CISN 300 Network Systems Administration ........................3
CISP 304 Networking Technologies ..................................3
CISS 310 Network Security Fundamentals ..........................3
CISS 320 Implementing Network Security and Counter Measures .3
CISS 330 Implementing Internet Security and Firewalls ..........3
CISS 356 Introduction to Information Assurance ................3
CISS 341 Implementing Windows Operating System Security ......3
or CISS 342 Implementing Linux Operating System Security ....3
or CISP 350 Disaster Recovery (3)
or CISP 360 Computer Forensics and Investigation (3)

total Units: ........................................................................24

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.

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</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
CIS - Information Technology Certificate
CODE #2021

This certificate allows students to acquire basic core Information Technology competencies that will prepare them for a career in Computer Networking, Cybersecurity, and related fields.

CERTIFICATE REQUIREMENTS ................................................. UNITS
CISC 310 Introduction to Computer Information Science ..........3
CISC 360 Information & Communication Technology Essentials (A+) .................................. 4
CISN 304 Networking Technologies ........................................3
CISP 370 Beginning Visual Basic (4) .................................... 4
or CISP 360 Introduction to Structured Programming (4)
A minimum of 6 units from the following:
CISN 300 Network Systems Administration (3)
CISP 351 Introduction to Relational Database Design and SQL (3)
CISS 310 Network Security Fundamentals (3)
CISS 356 Introduction to Information Assurance (3)
CISS 360 Computer Forensics and Investigation (5)
BUS 310 Business Communications (3)
A minimum of 4 units from the following:
STAT 300 Introduction to Probability and Statistics (4)
MATH 341 Calculus for Business and Economics (4)
MATH 343 Modern Business Mathematics (4)
MATH 400 Calculus I (5)
Total Units: ............................................................................ 24

CERTIFICATE OF ACHIEVEMENT
CIS - Linux Systems Administrator Certificate
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.

CERTIFICATE REQUIREMENTS ................................................. UNITS
CISC 323 Linux Operating System .............................................1
CISC 324 Intermediate Linux Operating System ................. 1
CISC 356 Introduction to Local Area Networks ...................... 1.5
CISN 300 Network Systems Administration ......................... 3
CISN 302 Intermediate Network Systems Administration ..........3
CISN 303 Network Administration - Linux Server ................. 3
CISS 342 Implementing Linux Operating System Security ..........3
Total Units: ............................................................................ 15.5
1 Linux
2 Linux

Take these courses: If you need these skills sets:

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Learning Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISN 300</td>
<td>Linux Installation and Configuration</td>
</tr>
<tr>
<td>CISN 302</td>
<td>Linux System Administration</td>
</tr>
<tr>
<td>CISN 303</td>
<td>Linux Networking</td>
</tr>
<tr>
<td>CISS 342</td>
<td>Linux Security, Privacy and Ethics</td>
</tr>
</tbody>
</table>

CERTIFICATE OF ACHIEVEMENT
CIS - Network Helpdesk Technician Certificate
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 skill-sets. The fundamentals of supporting end users and a Local Area Network (LAN) will also be emphasized.

CERTIFICATE REQUIREMENTS ................................................. UNITS
CISC 360 Information & Communication Technology Essentials (A+) .................................. 4
CISN 300 Network Systems Administration .................................. 3
CISN 301 Network Client Systems Administration .................. 3
CISN 304 Networking Technologies ......................................... 3
CISN 490 Networking Helpdesk Practicum ................................. 3
CISS 300 Introduction to Information Systems Security .......... 1
A minimum of 3 units from the following:
CISC 498 Work Experience in Computer Information Science - Core (1 - 4)
CISN 302 Intermediate Network Systems Administration (3)
CISP 303 Network Administration - Linux Server (3)
CISS 310 Network Security Fundamentals (3)
Total Units: ............................................................................ 20

CERTIFICATE OF ACHIEVEMENT
CIS - Object Oriented Software Development Certificate
CODE #1556

This certification will enhance students’ proficiency in the development by using Object Oriented programming languages. After this certification, the student should be able to use Java, C++, C#, and etc. to develop object oriented Programs.

CERTIFICATE REQUIREMENTS ................................................. UNITS
CISP 401 Object Oriented Programming with Java .................. 4
CISP 402 Java - Data Handling ................................................ 4
A minimum of 8 units from the following:
CISP 370 Beginning Visual Basic (4)
CISP 400 Object Oriented Programming with C++ (4)
CISP 405 Object Oriented Programming using C# on Visual Studio .NET (4)
Total Units: ............................................................................ 16

CERTIFICATE OF ACHIEVEMENT
CIS - Programming in C/C++ Certificate
CODE #1070

This CIS - Programming in C/C++ certificate provides students an advanced level of C/C++ programming skill. It will prepare students in advancing their career or transferring to four-year Universities.

CERTIFICATE REQUIREMENTS ................................................. 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
A minimum of 4 units from the following:
CISP 370 Beginning Visual Basic (4)
or CISP 401 Object Oriented Programming with Java (4)
or CISP 405 Object Oriented Programming using C# on Visual Studio .NET (4)
Total Units: ............................................................................ 19
CERTIFICATE OF ACHIEVEMENT
CIS - Relational Database Administration Certificate
CODE #1498

The Relational Database Administration Certificate is designed for a person who is responsible for interacting with SQL Programmers, Database Designers, System 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.

CERTIFICATE REQUIREMENTS ................................................UNITS
CISC 310 Introduction to Computer Information Science ..........3
CISA 320 Introduction to Database Management ...................1
CISC 323 Linux Operating System ........................................1
CISP 300 Algorithm Design/Problem Solving .........................3
CISP 351 Introduction to Relational Database Design and SQL ...3
CISP 354 Introduction to Relational Database Administration ....3
Total Units: ........................................................................ 19

CERTIFICATE OF ACHIEVEMENT
CIS - Server Administrator Certificate
CODE #1621

This certificate is designed for Network Help-desk 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.

CERTIFICATE REQUIREMENTS ................................................UNITS
CISC 360 Information & Communication Technology Essentials (A+) ................................................. 4
CISN 300 Network Systems Administration ..............................3
CISN 302 Intermediate Network Systems Administration ............3
CISN 304 Networking Technologies ........................................3
CISN 306 Advanced Network Systems Administration .............3
CISS 300 Introduction to Information Systems Security ............1
A minimum of 9 units from the following:
CISN 301 Network Client 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)
CISS 310 Network Security Fundamentals (3)
Total Units: ........................................................................ 26

CERTIFICATE OF ACHIEVEMENT
CIS - Web Programming Certificate
CODE #1500

This certificate prepares 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.

CERTIFICATE REQUIREMENTS ................................................UNITS
BUS 100 English for the Professional (3) ..............................3
CISP 300 Algorithm Design/Problem Solving .........................3
CISA 320 Introduction to Database Management ...................1
CISC 308 Linux Operating System (1)
CISC 324 Intermediate Linux Operating System ....................1
CISW 410 Middleware Web Scripting ....................................4
CISP 360 Introduction to Structured Programming ..................4
CISP 350 Database Programming .........................................3
CISW 400 Client-side Web Scripting ......................................4
A minimum of 5 units from the following:*
CISW 440 XML: Introduction to Extensible Markup Language (2)
CISW 402 Intermediate JavaScript (2)
CISW 310 Advanced Web Publishing (4)
CISA 321 Intermediate Database Management (1)
CISW 304 Cascading Style Sheets (2)
CISW 308 Mobile Web Development (2)
Total Units: ........................................................................ 32

CERTIFICATE OF ACHIEVEMENT
CIS - Web Publishing Certificate
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.

CERTIFICATE REQUIREMENTS ................................................UNITS
BUS 100 English for the Professional (3) ..............................3
CISC 308 Exploring Computer Environments and the Internet (1) ...1
CISC 323 Linux Operating System (1)
CISW 350 Imaging for the Web ...........................................1
CISW 300 Web Publishing .................................................3
A minimum of 3 units from the following:
ART 301 Digital Drawing and Composition (3)
ARTNM 324 Digital Design (3)
PHOTO 400 Digital Imaging (3)
A minimum of 4 units from the following:*
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)
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)
CISW 308 Mobile Web Development (2)
Total Units: ........................................................................ 15

* Select either Windows (through CISC 308) or Linux (through CISC 323) operating system.
* CISW 310 is recommended to meet this 4-unit requirement.
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
Hours: 36 hours LEC
Prerequisite: None.
Advisory: BUSTEC 302, CISC 302, or CISC 310
Course Transferable to CSU
This course introduces students to fundamental and intermediate word processing skills. The course includes basic word processing operations: formatting business documents, editing, saving, retrieving, printing text, and creating and editing simple tables. The course also includes intermediate operations: inspecting documents for hidden properties, inserting and formatting graphic elements, managing reference markers, and merging multiple documents.

CISA 306
Intermediate Word Processing 2 Units
Hours: 36 hours LEC
Prerequisite: CISA 305 with a grade of “C” or better
Course Transferable to CSU
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 advanced mail merge techniques. 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 and Presentation Software 1 Unit
Hours: 18 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 36 hours LEC
Prerequisite: None.
Advisory: CISC 302 or 310
Course Transferable to CSU
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
Hours: 36 hours LEC
Prerequisite: CISA 315 with a grade of “C” or better
Course Transferable to CSU
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
Hours: 18 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 18 hours LEC
Prerequisite: None.
Advisory: CISC 302 or 310
Course Transferable to CSU
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
Hours: 18 hours LEC
Prerequisite: CISA 320 with a grade of “C” or better
Course Transferable to CSU
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 340
Presentation Graphics 2 Units
Hours: 36 hours LEC
Prerequisite: None.
Advisory: CISC 302 or 310
Course Transferable to CSU
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).
CISC 295
Independent Studies in Computer Information Science - Core 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
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
Hours: 36 hours LEC
Prerequisite: None.
Advisory: BUSTEC 302
Course Transferable to CSU
General Education: AA/AS Area III(b)
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
Hours: 18 hours LEC
Prerequisite: None.
Advisory: CISC 302 or 310
Course Transferable to CSU
This course is an introduction to how the Internet works and how to effectively use basic Internet services. Topics include browser basics, search engines and search techniques, E-mail, the World Wide Web, Internet security, Internet resources, the Cloud, social networking, and building basic web pages using HTML.

CISC 306
Introduction to Web Page Creation 1 Unit
Hours: 18 hours LEC
Prerequisite: CISC 305 with a grade of “C” or better; or equivalent skills for an intermediate level of Internet proficiency to be determined by the instructor of the course.
Course Transferable to CSU
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 360  
Information & Communication Technology Essentials (A+)  
4 Units  
Hours: 54 hours LEC; 54 hours LAB  
Prerequisite: None.  
Advisory: CISC 302 and 310  
Course Transferable to CSU  
This course provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level ICT professionals. The fundamentals of computer hardware and software, as well as advanced concepts such as security, networking, and the responsibilities of an ICT professional, will be introduced. This course helps to prepare students for the CompTIA A+ certification exam.

CISC 495  
Independent Studies in Computer Information Science - Core  
1 - 3 Units  
Hours: 54 - 162 hours LAB  
Prerequisite: None.  
Course Transferable to CSU  
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  
Hours: 60 - 300 hours LAB  
Prerequisite: None.  
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  
General Education: AA/AS Area III(b)  
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

COMPUTER INFO SCIENCE - NETWORK (CISN)

CISN 300  
Network Systems Administration  
3 Units  
Hours: 45 hours LEC; 27 hours LAB  
Prerequisite: None.  
Advisory: CISC 310 with a grade of “C” or better  
Course Transferable to CSU  
This course will provide a student with the knowledge and skills required to build, maintain, troubleshoot and support server hardware and software technologies. The student will be able to identify environmental issues; understand and comply with disaster recovery and physical/ software security procedures; become familiar with industry terminology and concepts; understand server roles/specializations and interaction within the overall computing environment. Consult the class schedule for specific operating system offered. (C-ID ITIS 155)

CISN 301  
Network Client Systems Administration  
3 Units  
Hours: 45 hours LEC; 27 hours LAB  
Prerequisite: None.  
Corequisite: CISC 323 and 356  
Advisory: CISC 302, 308, or 310  
Course Transferable to CSU  
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  
Hours: 45 hours LEC; 27 hours LAB  
Prerequisite: CISN 300 with a grade of “C” or better  
Course Transferable to CSU  
This course covers advanced administrative tasks of a server 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 303
Network Administration - Linux Server 3 Units
Hours: 45 hours LEC; 27 hours LAB
Prerequisite: CISN 300 with a grade of "C" or better
Course Transferable to CSU
This course provides introductory coverage of Linux Network Administration. The course covers the Key Linux certification exam, and to SAUR/NGI/3'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 administration; 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. Distinguish between the graphical system used by Linux and command line.

CISN 304
Networking Technologies 3 Units
Hours: 45 hours LEC; 27 hours LAB
Prerequisite: None.
Advisory: CISC 310 with a grade of "C" or better
Course Transferable to CSU
This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. It also introduces a foundation for further study of computer networks. It uses the OSI (Open Systems Interconnection) and TCP (Transmission Control Protocol) layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. Preparation for the CompTIA Network+ certification exam. (C-ID ITIS 150)

CISN 306
Advanced Network Systems Administration 3 Units
Hours: 45 hours LEC; 27 hours LAB
Prerequisite: CISN 302 with a grade of "C" or better
Course Transferable to CSU
This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. It also introduces a foundation for further study of computer networks. It uses the OSI (Open Systems Interconnection) and TCP (Transmission Control Protocol) layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. Preparation for the CompTIA Network+ certification exam. (C-ID ITIS 150)

CISN 341
CISCO Networking Academy (CCNA)™:
Networking Theory and Routing Technologies 3.5 Units
Hours: 54 hours LEC; 27 hours LAB
Prerequisite: None.
Corequisite: CISN 304
Course Transferable to CSU
This course covers networking theory and routing technologies, including the OSI Model, beginning router configurations, and routed and routing protocols. It prepares students for the CISCO Certified Network Associate (CCNA) certification examination. It also continues and expands the study of binary, decimal, and hexadecimal numbering systems to change variable length sub-net mass.
CISP 300
Algorithm Design/Problem Solving 3 Units
Hours: 54 hours LEC
Prerequisite: MATH 120 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area II(b)
This course covers the foundational concepts of computer languages such as C++, SQL, Visual Basic, JavaScript, PHP, and C#. Students will learn what lies underneath desktop, web, mobile, and database applications. Students may petition for GE Area B5 credit after transfer to CSUS.

CISP 310
Assembly Language Programming for Microcomputers 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: CISP 360 with a grade of “C” or better
Course Transferable to CSU; UC
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
Hours: 54 hours LEC
Prerequisite: CISA 320 with a grade of “C” or better; and three units in any programming language.
Course Transferable to CSU; UC
General Education: AA/AS Area II(b)
This is an introductory course in programming databases. Topics include analysis and design, modular programming, screen displays and menus, and multiple databases.

CISP 351
Introduction to Relational Database Design and SQL 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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, and queries. The course covers core concepts in identifying data and information management requirements for organizations, data modeling, and normalization techniques. The database design section focuses on logical model design and entity relationship (ER) modeling. The course exposes students to the use of Relational Database Management Systems using an industrial-strength database management system. Students will leave the course with a good working knowledge of database technology.

CISP 352
Intermediate SQL 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: CISP 351
Course Transferable to CSU
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.

CISP 353
Application Development in a Client Server Environment 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: CISP 352
Course Transferable to CSU
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.

CISP 354
Introduction to Relational Database Administration 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: CISP 352
Course Transferable to CSU
This course is designed to introduce students to administering a relational database management system. Topics include: managing users, privileges, resources, and tables; 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.

CISP 356
Relational Database Design and Information Retrieval 3 Units
Hours: 54 hours LEC
Prerequisite: CISP 350 with a grade of “C” or better
Course Transferable to CSU
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.
CISP 360
Introduction to Structured Programming 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: CISP 300 or MATH 400 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area II(b)
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. (C-ID COMP 112)

CISP 370
Beginning Visual Basic 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: CISC 310 or CISP 300
Course Transferable to CSU; UC
General Education: AA/AS Area II(b)
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.

CISP 400
Object Oriented Programming with C++ 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: CISP 360 with a grade of "C" or better
Course Transferable to CSU; UC
General Education: AA/AS Area II(b)
This course is an intermediate C++ course designed to further enhance the students' abilities to design and develop object-oriented programs. Included is an emphasis in 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
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: CISP 360 with a grade of "C" or better
Course Transferable to CSU; UC
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 applets, 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, multitasking, and managing files and streams handling.

CISP 402
Java - Data Handling 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: CISP 401 with a grade of "C" or better
Course Transferable to CSU
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 405
Object Oriented Programming using C# on Visual Studio .NET 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: CISP 400 or 401 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
This course is an introduction to C# object-oriented programming language in a 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-based as well as system development capabilities of C#.

CISP 430
Data Structures 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: CISP 400 or CISP 401 with a grade of "C" or better or an equivalent level programming course in the programming language used in this course
Course Transferable to CSU; UC
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. Data structures include stacks, queues, trees, lists, etc. Advanced language features related to strings, non-text files, pointers, recursion, and object-oriented programming methodology are covered. 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
Hours: 54 hours LEC
Prerequisite: MATH 370 with a grade of "C" or better
Corequisite: CISP 430
Course Transferable to CSU; UC
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 automata. (C-ID COMP 152)

CISP 499
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
INTRODUCTION TO INFORMATION SYSTEMS SECURITY 1 Unit

This course introduces students to the fundamental concepts and topics in information assurance and security. The course covers essential practices such as developing a security policy, understanding the key components of a security policy, implementing that policy by performing Network Address Translation, firewalls, Intrusion Prevention System (IPS), and Virtual Private Networks (VPNs). Additionally, the course covers topics such as developing a security policy, the importance of proper operating system configuration, and the hands-on skills to implement and support network security.

Course Transferable to CSU
This course is intended for beginner users who want to increase their understanding of information security issues and practices. It is intended for end users who use computers at home or in the office. The course covers all of the need-to-know information about staying secure, including up-to-date information on relevant topics such as protecting mobile devices and wireless local area networks. Students will learn how to maintain a secure environment and avoid security attacks through a series of real-life user experiences, hands-on projects, and case studies.

NWK 100
Introduction to Information Assurance 3 Units

This course introduces students to the fundamental concepts and topics in information assurance and security. The course covers essential practices such as developing a security policy, understanding the key components of a security policy, implementing that policy by performing Network Address Translation, firewalls, Intrusion Prevention System (IPS), and Virtual Private Networks (VPNs). Additionally, the course covers topics such as developing a security policy, the importance of proper operating system configuration, and the hands-on skills to implement and support network security.

Course Transferable to CSU
This course is intended for beginner users who want to increase their understanding of information security issues and practices. It is intended for end users who use computers at home or in the office. The course covers all of the need-to-know information about staying secure, including up-to-date information on relevant topics such as protecting mobile devices and wireless local area networks. Students will learn how to maintain a secure environment and avoid security attacks through a series of real-life user experiences, hands-on projects, and case studies.

NWK 101
Introduction to Computer Security 3 Units

This course introduces students to the fundamental concepts and topics in information assurance and security. The course covers essential practices such as developing a security policy, understanding the key components of a security policy, implementing that policy by performing Network Address Translation, firewalls, Intrusion Prevention System (IPS), and Virtual Private Networks (VPNs). Additionally, the course covers topics such as developing a security policy, the importance of proper operating system configuration, and the hands-on skills to implement and support network security.

Course Transferable to CSU
This course is intended for beginner users who want to increase their understanding of information security issues and practices. It is intended for end users who use computers at home or in the office. The course covers all of the need-to-know information about staying secure, including up-to-date information on relevant topics such as protecting mobile devices and wireless local area networks. Students will learn how to maintain a secure environment and avoid security attacks through a series of real-life user experiences, hands-on projects, and case studies.
CISS 350
Disaster Recovery 3 Units
Hours: 48 hours LEC; 18 hours LAB
Prerequisite: CISS 310 with a grade of “C” or better
Course Transferable to CSU
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.

CISS 356
Introduction to Information Assurance 3 Units
Hours: 45 hours LEC; 27 hours LAB
Prerequisite: CISS 310 with a grade of “C” or better
Course Transferable to CSU
This course introduces the network security specialist to the various methodologies for attacking a network. Students will be introduced to the concepts, principles, and techniques, supplemented by hands-on exercises, for attacking and disabling a network within the context of properly securing a network. The course will emphasize network attack methodologies with the emphasis on student use of network attack techniques and tools and appropriate defenses and countermeasures. Students will receive course content information through a variety of methods: lecture and demonstration of hacking tools will be used in addition to a virtual environment. Students will experience a hands-on practical approach to penetration testing measures and ethical hacking.

CISS 360
Computer Forensics and Investigation 3 Units
Hours: 45 hours LEC; 27 hours LAB
Prerequisite: CISS 310 with a grade of “C” or better
Advisory: CISC 308
Course Transferable to CSU
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.

COMPUTER INFO SCIENCE - WEB (CISW)

CISW 300
Web Publishing 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: CISC 305
Course Transferable to CSU
This course is an introduction to publishing on the Internet’s World Wide Web (www). Topics include creating www pages with the HyperText Markup Language (html), organizing a series of pages into a website, and uploading web pages to a server. The course makes extensive use of the computer tools necessary to insert html tags, create images, and view web documents. This course prepares apprentice web designers and publishers to identify the information dissemination needs of a client, design appropriate World Wide Web solutions, and implement it.

CISW 304
Cascading Style Sheets 2 Units
Hours: 27 hours LEC; 27 hours LAB
Prerequisite: CISW 300 with a grade of “C” or better
Course Transferable to CSU
This course continues the study of technical aspects of standards-based Web design for experienced students and Web professionals. Topics include the separation of content from presentation, dynamic user interaction and designing for alternative devices, using Cascading Style Sheets (CSS) in combination with Extensible Hypertext Markup Language (XHTML).

CISW 308
Mobile Web Development 2 Units
Hours: 27 hours LEC; 27 hours LAB
Prerequisite: CISW 300 with a grade of “C” or better
Advisory: CISW 304
Course Transferable to CSU
In this course, students will learn to create websites that are responsive: sites that adapt their layout to the client device being used, whether it be a smartphone, tablet computer, or desktop computer/laptop.

CISW 310
Advanced Web Publishing 4 Units
Hours: 72 hours LEC
Prerequisite: CISW 300 with a grade of “C” or better
Course Transferable to CSU
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  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: CISC 305  
Course Transferable to CSU  
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, and 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  
Hours: 54 hours LEC  
Prerequisite: CISW 321 with a grade of “C” or better  
Course Transferable to CSU  
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  
Hours: 18 hours LEC  
Prerequisite: None.  
Advisory: CISC 306 and CIS 300  
Course Transferable to CSU  
This course takes a look at designing graphics for the web. Using industry standard graphic software, students will manipulate images and create original graphics. Through lecture, demonstration and hands-on methods as well as class/instructor critiques, students will learn and practice 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 creating animation.

CISW 355  
Web Imaging Projects  2 Units  
Hours: 27 hours LEC; 27 hours LAB  
Prerequisite: CISW 350 with a grade of “C” or better  
Course Transferable to CSU  
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 images, 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  
Hours: 72 hours LEC  
Prerequisite: CISW 300 with a grade of “C” or better  
Advisory: CISP 300  
Course Transferable to CSU  
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 402  
Intermediate JavaScript  2 Units  
Hours: 27 hours LEC; 27 hours LAB  
Prerequisite: CISW 400 with a grade of “C” or better  
Advisory: CISW 410  
Course Transferable to CSU  
In this course, students will learn advanced JavaScript techniques and good standard coding conventions. Topics include advanced form validation, creating jump menus and cascading select menus, and learning to control CSS with JavaScript to manipulating the HTML DOM. Students will also learn about AJAX and practice using it to create interactive, asynchronous web pages. Finally, students will learn to use jQuery and other similar JavaScript frameworks.

CISW 410  
Middleware Web Scripting  4 Units  
Hours: 72 hours LEC  
Prerequisite: CISW 300 with a grade of “C” or better  
Advisory: CISP 300 or CISW 310  
Course Transferable to CSU  
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 440  
XML: Introduction to Extensible Markup Language  2 Units  
Hours: 36 hours LEC  
Prerequisite: CISW 300 with a grade of “C” or better  
Advisory: CISA 320 or CISP 350  
Course Transferable to CSU  
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
## Computer Information Science
### Curriculum Prerequisite Hierarchy

### Information Systems Security
- **CISN 300**
- **CISN 304**
- **CISS 310**

**CORE COURSES**
- CISS 320
- CISS 330
- CISS 341
- CISS 356

**ELECTIVES**
- CISS 342
- CISS 350
- CISS 360

*For CISC 302 or 310, it is advised to take BUSTEC 302 prior.*

**Prerequisite:**
BUSTEC 302 or Keyboarding Speed Verification at 25 wpm.

### Network Systems Administrator/Engineer (Windows)
- **CISN 300**

**CORE COURSES**
- CISS 302
- CISS 306

**ELECTIVES**
- CISS 303
- CISS 374
- CISS 378
- CISS 310
- CISS 304

### Linux Systems Administrator
- **CISN 300**
- **CISS 342**

### Web/Internet
- **CISC 305**
- **CISC 306**

### Programming
- **CISP 300**
- **MATH 400**

**CISP 360**
- CISP 310
- CISP 400*

**CISP 370**
- CISP 401*

**CISP 360**
- CISP 400
- CISP 405

**CISP 430**
- CISP 440

*Please see a CRC CIS Professor to determine which of these Computer Science or Engineering paths fit your major and transfer university.*

### Database
- **CISA 302**
- **CISA 321**

**CISP 351**
- CISP 352
- CISP 350
- CISP 354
- CISP 356

*Advisory Classes*

162 | Computer Information Science 2019–2020 Cosumnes River College
DEGREE
A.S.—Construction
A.S.—Construction, Building Performance and Energy Assessment

CERTIFICATE OF ACHIEVEMENT
Construction

CERTIFICATE OF PROFICIENCY
Construction Pre-Apprenticeship

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
Estimators
Construction Supervisors
Material Salespersons
Four year Apprenticeship
Building Inspector
Energy Auditor
Project Manager
Weatherization Technician
Building Performance Contractor
Certified Energy Plans Examiner
Energy Consultant
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
ASSOCIATE DEGREES
A.S. in Construction, Building Performance and Energy Assessment
CODE #1968

DEGREE REQUIREMENTS  .................................................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 163  Advanced Energy Auditing and Energy Modeling ....3
Total Units: .................................................................... 27

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, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

A.S. in Construction
CODE #1110

This program trains students for an industry that is one of the largest employers in the nation. CRC’s construction program is designed to provide students with basic and applied technical skills and knowledge necessary for employment in the building and construction industry. Standard construction procedures are emphasized throughout the program.

DEGREE REQUIREMENTS  .................................................UNITS
CMT 112  Construction Estimating ....................................3
CMT 120  Legal Aspects of Construction ..............................3
CONST 130  Construction Pre-Apprenticeship I .......................6
CONST 131  Construction Pre-Apprenticeship II .....................7
CMT 136  Construction Safety ...........................................3
CMT 300  Introduction to Construction Plans and Specifications (3) .................................................. 3
or BIT 102  Plan Reading and Non-Structural Plan Review (3)
CMT 310  Materials of Construction ..................................3
CMT 313  Computer Estimating for Construction .................3
BIT 100  Introduction to the International Building Code .......3
Total Units: .................................................................... 34

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, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Construction Pre-Apprenticeship Certificate
CODE #1546

This program prepares students for entry into formal apprenticeship programs and other entry level jobs in the building and construction industry.

CERTIFICATE REQUIREMENTS  .................................................UNITS
CONST 102  Introduction to Construction Practices.................4
CONST 103  OSHA 10 Hour Safety Training ...........................1
CONST 105  Rough Carpentry I - Tools, Materials, and Foundations .................................................. 3
CONST 106  Rough Carpentry II - Floors, Walls, and Roof Framing .................................................. 3
CONST 107  Rough Carpentry III - Exterior Finishes ...............3
CONST 108  Finish Carpentry I - Interior Finish ....................3
Total Units: .................................................................... 17

CERTIFICATE OF ACHIEVEMENT
Construction Certificate
CODE #1110

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.

CERTIFICATE REQUIREMENTS  .................................................UNITS
CMT 112  Construction Estimating ....................................3
CONST 130  Construction Pre-Apprenticeship I .......................6
CONST 131  Construction Pre-Apprenticeship II .....................7
CMT 136  Construction Safety ...........................................3
CMT 300  Introduction to Construction Plans and Specifications (3) .................................................. 3
or BIT 102  Plan Reading and Non-Structural Plan Review (3)
CMT 310  Materials of Construction ..................................3
Total Units: .................................................................... 25

CERTIFICATE
Green Buildings Certificate

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.

CERTIFICATE REQUIREMENTS  .................................................UNITS
ARCH 342  Introduction to Green Buildings ..........................3
CMT 310  Materials of Construction ..................................3
A minimum of 12 units from the following:
ARCH 332  Design Awareness (3)
ARCH 334  Advanced Design in Three Dimensions (3)
ADT 320  Architectural Design Technology - Building Information Modeling (BIM) I (3)
ADT 322  Architectural Design Technology - Building Information Modeling (BIM) II (3)
BIT 150  California Energy Code – Building Energy Efficiency Standards (3)
CONST 143  Photovoltaic Systems (3)
ECON 306  Environmental Economics (3)
GEOG 302  Environmental Studies & Sustainability (3)
GEOG 305  Global Climate Change (3)
GEOG 306  Weather and Climate (3)
Total Units: .................................................................... 18
CONSTRUCTION (CONST)

CONST 102
Introduction to Construction Practices 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: None.
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 workplace culture. The curriculum also emphasizes job site safety, practical working knowledge of tools and equipment use, an introduction to blueprints, and an overview of industry math.

CONST 103
OSHA 10 Hour Safety Training 1 Unit
Hours: 18 hours LEC
Prerequisite: None.
This OSHA Outreach Training Program is for training construction 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 105
Rough Carpentry I - Tools, Materials, and Foundations 3 Units
Hours: 27 hours LEC; 81 hours LAB
Prerequisite: None.
This course is designed to teach the introductory skills required to be successful in the construction industry. Course topics include an Introduction to the Industry, Hand and Power Tools, Building Materials, Introduction to Plans and Building Codes, Site Layout and Foundations. A heavy emphasis is placed on “hands-on” demonstration of proficiency with safe and efficient use of tools, plan reading, as well as the fundamental layout techniques for foundations.

CONST 106
Rough Carpentry II - Floors, Walls, and Roof Framing 3 Units
Hours: 27 hours LEC; 81 hours LAB
Prerequisite: None.
This course is designed to teach the skills required to be successful in the construction industry. Course topics include Skill Development in Hand and Power Tool use, as well as techniques in Floor Framing, Wall Framing and Roof Framing. A heavy emphasis is placed on “hands-on” demonstration of proficiency with safe and efficient use of tools, plan reading, as well as the fundamental layout techniques for floor, wall, and roof framing.

CONST 107
Rough Carpentry III - Exterior Finishes 3 Units
Hours: 27 hours LEC; 81 hours LAB
Prerequisite: None.
This course is designed to teach the skills required to be successful in the construction industry. Course topics include skill development for hand and power tools, review of framing principles, windows and doors, insulation and ventilation, exterior siding, and roofing. A heavy emphasis is placed on “hands-on” demonstration of proficiency with safe and efficient use of tools, window and door installations, as well as siding and roofing.

CONST 108
Finish Carpentry I - Interior Finish 3 Units
Hours: 27 hours LEC; 81 hours LAB
Prerequisite: None.
This course is designed to teach the skills required to be successful in the construction industry. Course topics include Skill development with tools, Drywall, Interior doors and door frames, Interior trim, Stairs and cabinets. A heavy emphasis is placed on “hands-on” demonstration of proficiency with safe and efficient use of tools, drywall applications, as well as the accurate installation of interior trim.

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 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 142
Energy, Performance, and Indoor Air Quality 3 Units
Hours: 54 hours LEC
Prerequisite: None.
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 under-current through out 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
Hours: 54 hours LEC
Prerequisite: None.
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 160
Introduction to Residential Building Performance 6 Units
Hours: 81 hours LEC; 81 hours LAB
Prerequisite: None.
Advisory: CONST 130 and 131, or equivalent skills demonstrated through the assessment process.
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
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: CONST 160 with a grade of “C” or better
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 163
Advanced Energy Auditing and Energy Modeling 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: CONST 161
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 0.5 - 4 Units
Hours: 9 - 54 hours LEC
Prerequisite: None.
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Construction.
General Education: AA/AS Area III(b)
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 .5-4 Units
Prerequisite: None
Hours: 36 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

ASSOCIATE DEGREE
A.S. in Construction Management Technology
CODE #1080

This 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.

DEGREE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Fundamentals of College Accounting (3)</td>
<td>3 - 4</td>
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<tr>
<td>or ACCT 301</td>
<td>Financial Accounting (4)</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>CISC 302</td>
<td>Computer Familiarization</td>
<td>2</td>
</tr>
<tr>
<td>CMT 300</td>
<td>Introduction to Construction Plans and Specifications (3)</td>
<td>3</td>
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<tr>
<td>or BIT 102</td>
<td>Plan Reading and Non-Structural Plan Review (3)</td>
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<tr>
<td>CMT 112</td>
<td>Construction Estimating</td>
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<tr>
<td>CMT 120</td>
<td>Legal Aspects of Construction</td>
<td>3</td>
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<tr>
<td>CMT 134</td>
<td>Construction Scheduling and Critical Path Method</td>
<td>3</td>
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<tr>
<td>CMT 136</td>
<td>Construction Safety</td>
<td>3</td>
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<tr>
<td>CMT 310</td>
<td>Materials of Construction</td>
<td>3</td>
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<tr>
<td>CMT 313</td>
<td>Computer Estimating for Construction</td>
<td>3</td>
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<tr>
<td>PHYS 310</td>
<td>Conceptual Physics</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>32 - 33</td>
</tr>
</tbody>
</table>

Associate in Science Degree
The Construction Management Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

Suggested Electives:
ARCH 310  History of Architecture
BUS 310  Business Communications
STAT 300  Introduction to Probability and Statistics
FITNS 355  Workforce Fitness
PHYS 350  General Physics
BUS 345  Law and Society
ADT 300  Architectural Sketching and Modeling I
PHYS 360  General Physics
CERTIFICATE OF ACHIEVEMENT
Construction Management Technology Certificate
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.

Note to Transfer Student:
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.

CERTIFICATE REQUIREMENTS ...........................................UNITS

ADT 310 Architectural Computer-Aided Drawing I ..............3
CISC 302 Computer Familiarization .....................................2
CMT 112 Construction Estimating .......................................3
CMT 120 Legal Aspects of Construction ............................3
CMT 134 Construction Scheduling and Critical Path Method ....3
CMT 300 Introduction to Construction Plans and Specifications (3) .................................................................3
or BIT 102 Plan Reading and Non-Structural Plan Review (3)
CMT 310 Materials of Construction .................................3
CMT 313 Computer Estimating for Construction .................3
Total Units: ...................................................................... 23

CERTIFICATE OF ACHIEVEMENT
Green Buildings Certificate

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.

CERTIFICATE REQUIREMENTS .................................UNITS

ARCH 342 Introduction to Green Buildings ........................3
CMT 310 Materials of Construction .................................3
A minimum of 12 units from the following:
ARCH 332 Design Awareness (3)
ARCH 334 Advanced Design in Three Dimensions (3)
ADT 320 Architectural Design Technology - Building Information Modeling (BIM) I (3)
ADT 322 Architectural Design Technology - Building Information Modeling (BIM) II (3)
BIT 150 California Energy Code – Building Energy Efficiency Standards (3)
CONST 143 Photovoltaic Systems (3)
ECON 306 Environmental Economics (3)
GEOG 302 Environmental Studies & Sustainability (3)
GEOG 305 Global Climate Change (3)
GEOG 306 Weather and Climate (3)
Total Units: ...................................................................... 18

CONSTRUCTION MANAGEMENT TECH (CMT)

CMT 112
Construction Estimating 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: CMT 310
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: CMT 112
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: CMT 112
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: CMT 300
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
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  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: Concurrent enrollment in CMT 310  
Course Transferable to CSU  
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  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: CMT 300, or equivalent skills demonstrated through the assessment process.  
Course Transferable to CSU  
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  
Hours: 36 hours LEC; 54 hours LAB  
Prerequisite: None.  
Advisory: CMT 112  
Course Transferable to CSU  
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  
Hours: 54 - 162 hours LAB  
Prerequisite: None.  
Course Transferable to CSU  
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  
Hours: 60 - 300 hours LAB  
Prerequisite: None.  
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  
General Education: AA/AS Area III(b)  
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
Agriculture, Food & Natural Resources

DEGREE
A.A. — Culinary Arts Management
A.A. — Restaurant and Food Service Entrepreneurship

CERTIFICATES OF ACHIEVEMENT
Cooking and Supervision
School Foodservice Specialist

CERTIFICATES OF PROFICIENCY
Basic Culinary Services

Program Description
This program provides training for employment in commercial culinary service operations. Courses begin at entry-level training; advanced courses build upon skills acquired in pre-requisite courses.

The program includes coursework in culinary arts, baking and pastry, food and equipment use and identification, culinary sanitation, nutrition, marketing, legal control and financial analysis. Students will apply those skills with hands-on training in production centered labs.

Sanitation training is offered as an integral part of each certificate and degree, and is certified by the Association as well as Sacramento County Environmental Health Division.

Career Opportunities
Culinary Manager Culinary Supervisor
Cook Kitchen Manager
Waiter / Waitress Restaurant Manager
Caterer Food Service Worker
Baker School Food Service Specialist

Highlights
• Hands-on experience in all aspects of commercial culinary services
• Curriculum developed in collaboration with Sacramento employers in restaurants, schools, hospitals, and grocery stores

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

ASSOCIATE DEGREES
A.A. in Culinary Arts Management
CODE #1128

DEGREE REQUIREMENTS ......................................................... UNITS
CAM 300 Introduction to Culinary Arts Management ............... 2
CAM 306 Culinary Sanitation & Safety .................................. 2
CAM 301 Food Theory and Preparation ................................ 4
CAM 302 Food and Culture in America ................................ 3
CAM 303 Food Product Identification .................................. 2
CAM 310 Quantity Food Production .................................... 3
CAM 312 Baking and Pastry (3) ............................................. 3
CAM 320 Culinary Management ......................................... 2
CAM 322 Culinary Customer Service .................................. 2
CAM 324 Culinary Supervision .......................................... 2
CAM 330 Legal Aspects of Culinary Management ............... 2
CAM 332 Culinary Financial Management .......................... 2
CAM 334 Culinary Marketing ............................................ 2
A minimum of 4 units from the following:
CAM 498 Work Experience in Culinary Arts Management (1 - 4)
NUTRI 300 Nutrition ....................................................... 3
Total Units: ......................................................................... 38

1 CAM 300, 306, and 301 serve as pre-requisite courses for many higher level courses.

Associate in Arts Degree
The Culinary Arts Management Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
A.A. in Restaurant and Food Service Entrepreneurship
CODE #2022

This program provides training and education for those wishing to own a restaurant or other food service venture. The various elements involved in starting and operating a small business are covered as well as training in food theory and production, safety and sanitation, culinary purchasing, and service.

DEGREE REQUIREMENTS ....................................................... UNITS
CAM 300 Introduction to Culinary Arts Management............. 2
CAM 301 Food Theory and Preparation.................................... 41
CAM 303 Food Product Identification ...................................... 2
CAM 306 Culinary Sanitation & Safety .................................. 2
CAM 310 Quantity Food Production ....................................... 3
CAM 320 Culinary Management ............................................. 2
CAM 322 Culinary Customer Service ..................................... 2
CAM 332 Culinary Financial Management ................................ 2
CAM 334 Culinary Marketing.................................................. 2
BUS 215 Entrepreneurial Opportunity and Business Planning ... 3
BUS 300 Introduction to Business ........................................... 3
BUS 340 Business Law........................................................... 3
BUS 350 Small Business Management/Entrepreneurship ....... 3
MKT 300 Principles of Marketing ............................................ 3
ACCT 301 Financial Accounting (4) ........................................ 3 - 4
or BUS320 Concepts in Personal Finance (3) .......................... 3
NUTRI 300 Nutrition .............................................................. 3

Total Units: ........................................................................ 42 - 43

Associate in Arts Degree
The Restaurant and Food Service Entrepreneurship Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF PROFICIENCY
Basic Culinary Services Certificate
CODE #1129

CERTIFICATE REQUIREMENTS .............................................. UNITS
CAM 300 Introduction to Culinary Arts Management............. 2
CAM 306 Culinary Sanitation & Safety .................................. 2
CAM 301 Food Theory and Preparation................................. 41
CAM 310 Quantity Food Production ....................................... 3
CAM 322 Culinary Customer Service ..................................... 2

Total Units: ........................................................................ 13

1 CAM 300, 306, and 301 serve as pre-requisite courses for many higher level department courses

CERTIFICATE OF ACHIEVEMENT
Cooking and Supervision Certificate
CODE #1130

CERTIFICATE REQUIREMENTS .............................................. UNITS
CAM 300 Introduction to Culinary Arts Management............. 2
CAM 306 Culinary Sanitation & Safety .................................. 2
CAM 301 Food Theory and Preparation................................. 41
CAM 310 Quantity Food Production ....................................... 3
CAM 312 Baking and Pastry (3) .............................................. 32
CAM 300 Nutrition .............................................................. 3

Total Units: ........................................................................ 25

1 CAM 300, 306, and 301 serve as pre-requisite courses for many higher level department courses

CERTIFICATE OF ACHIEVEMENT
School Foodservice Specialist Certificate
CODE #1276

CERTIFICATE REQUIREMENTS .............................................. UNITS
NUTRI 300 Nutrition .............................................................. 3
NUTRI 322 Nutrition Issues Throughout Life ......................... 3
CAM 300 Introduction to Culinary Arts Management............. 2
CAM 306 Culinary Sanitation & Safety .................................. 2
CAM 301 Food Theory and Preparation................................. 41
CAM 302 Food and Culture in America (3) ............................ 3
CAM 310 Quantity Food Production ....................................... 3
CAM 320 Culinary Management ............................................. 2
ECE 415 Children’s Health, Safety and Nutrition (3) .............. 3

Total Units: ........................................................................ 25

1 CAM 300, 306, and 301 serve as pre-requisite courses for many higher level department courses
CULINARY ARTS MANAGEMENT
(CAM)

CAM 294
Topics in Culinary Arts Management 0.5 - 4 Units
Hours: 5 - 36 hours LEC; 13 - 108 hours LAB
Prerequisite: None.
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
Hours: 36 hours LEC
Prerequisite: None.
Course Transferable to CSU
This course provides an overview of the skills and attributes that predict success for professionals in the restaurant/foodservice industry. Entry skills to be taught include mise en place, work simplification/time management, computational skills including measurements and conversions, flavor profiles, plating and garnishing, interview skills, menu development, recipe writing and an overview of the history and modern state of the restaurant/foodservice industry.

CAM 301
Food Theory and Preparation 4 Units
Hours: 36 hours LEC; 108 hours LAB
Prerequisite: None.
Corequisite: CAM 300 and 306
Course Transferable to CSU
A comprehensive study of the basic principles and techniques involved in professional food preparation. The principles covered within this course will serve as the foundation for all other lab courses. Topics will include: work simplification, measurements/ conversions, knife skills, soups, sauces, salads, heat transfer methods, equipment recognition, cleaning, use of hand tools/measuring devices, as well as identifying, cleaning, and cutting raw materials. This course will examine the reasons for procedures and phenomena and the prevention and/or correction of cooking failures. The laboratory emphasizes theory application through the preparation of soups, sauces, salads, vegetables, meats, poultry, seafood, breakfast dishes, grains, pastas and potatoes. This course may require out of class time attendance at events (all required events will be listed in the course syllabus).

CAM 302
Food and Culture in America 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area VI
This course is an in-depth study of the food habits of various culinary regions in the United States. This course will examine the geography, history, and people that have shaped each region's food culture. Defining dishes and principle ingredients as well as the modern cuisine of the regions will be studied.

CAM 303
Food Product Identification 2 Units
Hours: 36 hours LEC
Prerequisite: None.
Course Transferable to CSU
This course will cover the identification of different food products. Written materials, hands-on interaction with products, and product sampling will be utilized as methods to help students identify and understand products being studied.

CAM 306
Culinary Sanitation & Safety 2 Units
Hours: 36 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 18 hours LEC; 108 hours LAB
Prerequisite: CAM 300, 301, and 306 with grades of “C” or better
Course Transferable to CSU
This course is an introduction to the principles of quantity food production and service. The production and service of industry quality and quantity food will be covered. Components may include knife skills, equipment recognition, use of hand tools and measuring devices, and cleaning/cutting raw materials. This course may also cover quantity preparation of sandwiches, soups, salads, garde manger items, vegetables, meats, poultry, seafood, breakfast dishes, rice and other grains, pastas and potatoes, sauces and simple dessert items. This course may require out of class time attendance at events (all required events outside of class time will be listed in the course syllabus).

CAM 312
Baking and Pastry 3 Units
Hours: 18 hours LEC; 108 hours LAB
Prerequisite: CAM 300, 301, and 306 with grades of “C” or better
Advisory: CAM 310
Course Transferable to CSU
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 may include yeast breads, Danish pastry, croissants, puff pastry, tarts and fine cakes, tarts and pies, and chocolate work. Emphasis is placed on production of high quality products and professional presentation. This course may require out of class time attendance at events (all required events outside of class time will be listed in the course syllabus).
CAM 316
Hors D’oeuvres and Canapes 3 Units
Hours: 18 hours LEC; 108 hours LAB
Prerequisite: CAM 300, 301, and 306 with grades of “C” or better
Advisory: CAM 310
Course Transferable to CSU
This course is designed to teach students the production of hors d’oeuvres and canapes. 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. This course may require out of class time attendance at events (all required events outside of class time will be listed in the course syllabus).

CAM 320
Culinary Management 2 Units
Hours: 36 hours LEC
Prerequisite: None.
Course Transferable to CSU
The course is designed to introduce students to the manager’s role in organizing, planning, and control of production for a culinary operation. Topics may 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
Hours: 36 hours LEC
Prerequisite: None.
Course Transferable to CSU
Culinary customer service is a skills development course to provide entry-level training in front-of-house service principles. The components of professional service styles will serve as the foundations for this course.

CAM 324
Culinary Supervision 2 Units
Hours: 36 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 36 hours LEC
Prerequisite: CAM 300 with a grade of “C” or better
Course Transferable to CSU
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
Hours: 36 hours LEC
Prerequisite: None.
Advisory: CAM 300
Course Transferable to CSU
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
Hours: 36 hours LEC
Prerequisite: None.
Corequisite: CAM 300
Course Transferable to CSU
This course focuses on food and beverage pricing, 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
Hours: 36 hours LEC
Prerequisite: None.
Course Transferable to CSU
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 and group sales strategies. The emphasis of the course will be on the design of menus and menu pricing.

CAM 340
Nutrition for Culinary Professionals 2 Units
Hours: 36 hours LEC
Prerequisite: None.
Advisory: CAM 300
Course Transferable to CSU
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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  
Hours: 60 - 300 hours LAB  
Prerequisite: CAM 300, 301, 306, and 310 with grades of “C” or better  
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  
General Education: AA/AS Area III(b)  
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
DEGREE
A.A. — Deaf Studies

Program Description
CRC offers courses in Deaf Studies designed to introduce students to Deaf Culture and American Sign Language Studies. 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.

NOTE: During the 2015-16 academic year, Cosumnes River began the migration of courses from the SILA designator to the DEAF designator. Credit can only be given for one course:

Corresponding courses are:
- SILA 305    DEAF 310
- SILA 306    DEAF 312
- SILA 315    DEAF 314
- SILA 316    DEAF 316
- SILA 330    DEAF 351
- SILA 332    DEAF 352
- SILA 338    DEAF 353
There are also unit limitations for the following:
- SILA 495    DEAF 495
- SILA 499    DEAF 499

Career Opportunities
ADA Specialist    Artistic Signing
Audioligist       Business
Educational Interpreter    Group Home Worker
Human Services Worker    Legal Aid
Linguist          Mass Media
Mental Counselor   Recreation
Religion          Show/Theatre Interpreting
Speech Therapy    Teacher
Teacher Aide      Telecommunication Operators
Video Remote Interpreting

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

ASSOCIATE DEGREE
A.A. in Deaf Studies
CODE #2023

This degree provides an introductory overview of the Deaf community and American Sign Language in cultural context. Students completing the Deaf Studies A.A. degree will develop an understanding and respect for the Deaf culture which will enable them to collaborate effectively with Deaf people for the empowerment of the Deaf community. The Deaf Studies A.A. provides students with the psychosocial dynamics necessary to work in educational or social service setting or to pursue an advanced degree at a 4-year institution.

DEGREE REQUIREMENTS ............................................................... UNITS
- DEAF 310 American Sign Language I ..................................4
- DEAF 312 American Sign Language II .................................4
- DEAF 314 American Sign Language III ...............................4
- DEAF 316 American Sign Language IV ................................4
- DEAF 351 Introduction to American Deaf Culture ........3
- DEAF 352 Introduction to American Deaf Education ....3
- DEAF 360 Deaf Art...............................................................3

A minimum of 3 units from the following:
- DEAF 311 Fingerspelling, Classifiers and Numbers (3)
- DEAF 354 Creative Signs (3)
- DEAF 380 American Sign Language Literature (3)

Total Units: ........................................................................... 28

Associate in Arts Degree
The Deaf Studies Associate in Arts (A.A.) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements. This degree prepares students for entry-level positions such as paraprofessional services in an individual or group setting, in an educational or social services agency which serves Deaf consumers.
DEAF 300  
Introduction to Deaf Culture and ASL Studies Orientation  0.5 Unit  
Hours: 9 hours LEC  
Prerequisite: None.  
Course Transferable to CSU; UC  
This course provides an overview of Deaf Culture and American Sign Language (ASL) Studies at Cosumnes River College. Topics include an introduction to the field of Deaf culture and ASL, job opportunities, and the skills needed to be successful in the field. Pass/No Pass only.

DEAF 310  
American Sign Language I  4 Units  
Hours: 72 hours LEC  
Prerequisite: None.  
Course Transferable to CSU; UC  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 6  
This is the first course in a series of four courses in American Sign Language (ASL). The instructional activities are based on an immersion approach, in which the learners develop language competency in source and target language. The emphasis is on non-speech communication. Topics include grammatical features such as adjective descriptors, differentiation between cardinal/ordinal numbers, contrastive structure, temporal aspect markers and temporal sequencing, conversational skills, narrative skills, and discussions with peers. This course was formerly known as SILA 305.

DEAF 311  
Fingerspelling, Classifiers and Numbers  3 Units  
Hours: 54 hours LEC  
Prerequisite: DEAF 310 or SILA 305 with a grade of “C” or better  
Course Transferable to CSU; UC  
This course covers the manual alphabet, numbers and classifiers and is designed to augment expressive and receptive fingerspelling, number and classifiers skills introduced in American Sign Language (ASL) courses. The focus is on skills and perceptual strategies used by students. Emphasis is on recognition of fingerspelling in context. Basic knowledge of American Sign Language is required. It enables the ASL students to develop, expand, and reinforce hands-on experiences with ASL using basic or complex fingerspelling, numbers, and classifiers skills.

DEAF 312  
American Sign Language II  4 Units  
Hours: 72 hours LEC  
Prerequisite: DEAF 310 or SILA 305 with a grade of “C” or better  
Course Transferable to CSU; UC  
General Education: AA/AS Area I; IGETC Area 6  
This is the second in a series of four courses in American Sign Language (ASL). The emphasis is on nonverbal communication. Course topics will be presented in a culturally rich context, providing students with the opportunity to develop an understanding and appreciation for Deaf culture. Topics include grammatical features such as adjective descriptors, differentiation between cardinal/ordinal numbers, contrastive structure, temporal aspect markers and temporal sequencing, conversational skills, narrative skills, and discussions with peers. This course was formerly known as SILA 306.

DEAF 314  
American Sign Language III  4 Units  
Hours: 72 hours LEC  
Prerequisite: DEAF 312 or SILA 306 with a grade of “C” or better  
Course Transferable to CSU; UC  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 6  
This course is the third in a series of four courses in American Sign Language. It emphasizes expressive and receptive nonverbal 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 norms from activities assigned in the class. It also includes dialogs that involve asking, empathizing, negotiating and agreeing or disagreeing. The emphasis is on non-speech communication. This course was formerly known as SILA 315.

DEAF 316  
American Sign Language IV  4 Units  
Hours: 72 hours LEC  
Prerequisite: DEAF 314 or SILA 315 with a grade of “C” or better  
Course Transferable to CSU; UC  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 6  
This course is the fourth in a series of four courses in American Sign Language (ASL). It emphasizes expressive communication skills that involve locating and signing interesting facts, making major life decisions, discussing health conditions, and using money. It incorporates information and activities previously learned about Deaf culture into these narratives. The emphasis is on non-speech communication. This course was formerly known as SILA 316.

DEAF 351  
Introduction to American Deaf Culture  3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Course Transferable to CSU; UC  
General Education: CSU Area D; IGETC Area 4  
This course is a survey of four institutions which have critical impact on the psycho-social development of Deaf people: family, education, work, and society. It provides awareness and sensitivity to the unique challenges of deafhood and how they influence personal, social and communication competencies of the Deaf person. Selected visits to community events may be required. This course is formerly known as SILA 330.

DEAF 352  
Introduction to American Deaf Education  3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Course Transferable to CSU; UC  
General Education: CSU Area D  
This course surveys topics related to educating Deaf children, adults, and individuals with additional disabilities. It also covers teaching methods and philosophies, school placement issues, child development, and methods of addressing developmental and linguistic stages. Selected visits to a residential Deaf school in Fremont and/or a local mainstreaming/Deaf program school may be required. This course was formerly known as SILA 332.
**DEAF 353**

**Baby Sign Language**

3 Units

*Hours: 54 hours LEC*

*Prerequisite: None.*

**Course Transferable to CSU**

This course focuses on Baby Sign Language 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. This course was formerly known as SILA 338.

**DEAF 354**

**Creative Signs**

3 Units

*Hours: 54 hours LEC*

*Prerequisite: DEAF 314 or communicating at a level of preliminary American Sign Language syntactical and lexical skills that are equivalent to the completion of DEAF 314.*

**Course Transferable to CSU**

Introduction to the techniques of facial expression, characterization, body movement, and specialization as it relates to American Sign Language. Development of expressive sign language skills through the use of poetry, songs, skits, storytelling, jokes and slang signs.

**DEAF 360**

**Deaf Art**

3 Units

*Hours: 54 hours LEC*

*Prerequisite: None.*

**Course Transferable to CSU; UC**

This course introduces Deaf Arts such as drawings, sculptures, artifacts, painting, printmaking and films. We will examine the materials, methods, and design principles of creating Deaf Arts. Local field trips may be required. This course addresses the need and demand of this instruction for global recognition and its social and cultural affects toward Deaf Arts. It promotes global and cultural understanding to the relationship of Deaf Art and the expression of national, regional, socio-economic class, and gender identity.

**DEAF 380**

**American Sign Language Literature**

3 Units

*Hours: 54 hours LEC*

*Prerequisite: DEAF 314 with a grade of “C” or better*

**Course Transferable to CSU; UC**

This course introduces American Sign Language (ASL) literature genres such as folklore and folktales, storytelling, visual vernacular, personification, classifier story, poetry, ABC and number stories and non-fiction narrative. Topics include analyzing and applying ASL usage in ASL literature genres.

**DEAF 400**

**Deaf Culture and ASL Studies Capstone**

1 Unit

*Hours: 18 hours LEC*

*Prerequisite: DEAF 316 or SILA 316 with grades of “C” or better*

**Course Transferable to CSU**

This course applies classroom learning to real-world practice in the Deaf community. It includes development of portfolios and digital portfolios from previous work in DEAF courses. Topics also include resume writing and interview skills.

**DEAF 495**

**Independent Study**

1 - 3 Units

*Hours: 54 - 162 hours LAB*

*Prerequisite: None.*

**Course Transferable to CSU**

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.
Diagnostic Medical Sonography
Health & Human Services

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 medical diagnoses”. 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:
Sonography is a dynamic profession that has grown significantly over the past 20 years with 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 can choose to work in clinics, hospitals, public-health facilities, laboratories, and other medical settings performing examinations in their areas of specialization. Approximately two-thirds of all sonographers are currently employed by major medical centers and hospitals with the remaining third employed in diagnostic medical imaging outpatient centers. As sonographers gain clinical years of experience they can choose to advance their careers and explore sonography education, research and development as well as industry specialties in applications and equipment sales.


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 either the Associate of Science or Certificate of Achievement in Diagnostic Medical Sonography, the student must meet the following criteria:

- Associate degree or higher in a Science major from a regionally accredited U.S. College;
- A minimum of 800 hours of direct patient care paid or volunteer experience;
- 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 within the last five (5) years:
  - 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

ASSOCIATE DEGREE
A.S. in Diagnostic Medical Sonography
CODE #1962

DEGREE REQUIREMENTS ................................................. UNITS

1st Summer Semester:
SONOG 200 Introduction to Sonography ......................... 3
SONOG 202 Sectional Anatomy for Medical Imaging ........... 3

1st Fall Semester:
SONOG 205 Ultrasound Physics & Instrumentation ............ 3
SONOG 210 Abdominal Scanning and Pathology ............... 4
SONOG 240 Superficial & Small Parts Scanning ................. 3

2nd Summer Semester:
SONOG 215 Clinical Experience I ............................... 7
SONOG 220 OB/GYN Scanning & Pathology ................... 4

2nd Fall Semester:
SONOG 225 Clinical Experience II .............................. 7
SONOG 228 Advanced OB/GYN Pathology ..................... 2

2nd Spring Semester:
SONOG 230 Vascular Scanning ................................... 4
SONOG 235 Clinical Experience III .............................. 9

2nd Summer Semester:
SONOG 250 Sonography Interpretation & ARDMS/ARRT Exam Review ....................... 2
SONOG 255 Clinical Experience IV ............................... 9

Total Units: ...................................................................... 60

— Continued on next page —
Diagnostic Medical Sonography Certificate

CODE #1963

CERTIFICATE REQUIREMENTS .......................................................... 60

1st Summer Semester:
SONOG 200 Introduction to Sonography ........................................ 3
SONOG 202 Sectional Anatomy for Medical Imaging ....................... 3

1st Fall Semester:
SONOG 205 Ultrasound Physics & Instrumentation ......................... 3
SONOG 210 Abdominal Scanning and Pathology ........................... 4
SONOG 240 Superficial & Small Parts Scanning ............................. 3

1st Spring Semester:
SONOG 215 Clinical Experience I ................................................ 7
SONOG 220 OB/GYN Scanning & Pathology .................................. 4

2nd Summer Semester:
SONOG 225 Clinical Experience II .............................................. 7
SONOG 228 Advanced OB/GYN Pathology ................................. 2

2nd Fall Semester:
SONOG 230 Vascular Scanning .................................................... 4
SONOG 235 Clinical Experience III ............................................... 9

2nd Spring Semester:
SONOG 250 Sonography Interpretation & ARDMS/ARRT Exam Review .. 2
SONOG 255 Clinical Experience IV ............................................... 9

Total Units: ................................................................................ 60
SONOG 210
Abdominal Scanning and Pathology  4 Units
Hours: 36 hours LEC; 108 hours LAB
Prerequisite: SONOG 202 with a grade of “C” or better
Corequisite: SONOG 205 and 240
Enrollment Limitation: This course is only available to students who have been accepted into the most recent cohort and who remain in good standing within the DMS program. Students must take this course for a letter grade, and must earn a grade of “C” or better in this course to remain in the DMS program.

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. This course must be taken for a letter grade, and students must achieve a “C” or better to remain in the DMS program.

SONOG 215
Clinical Experience I  7 Units
Hours: 384 hours LAB
Prerequisite: SONOG 210 with a grade of “C” or better
Corequisite: SONOG 220
Enrollment Limitation: This course is only available to students who have been accepted into the most recent cohort and who remain in good standing within the DMS program. This course is graded “P/NP”, and students must earn a grade of “P” in this course to remain in the DMS program. Enrollment in all clinical experience courses requires all of the following:
1) successful completion of the ARDMS Sonography Principles & Instrumentation (SPI) exam;
2) must have obtained an approved clinical placement assigned by the CRC DMS program coordinator; and
3) must be enrolled in all co-requisite courses.

This course will provide basic instruction and scanning experience in sonography in a hospital or other healthcare setting. The student will be learn 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 Health Insurance Portability and Accountability Act (HIPAA) law. This course is only available to students who currently enrolled in the DMS program and have met the prerequisites, co-requisites and have met all enrollment limitations. This course is graded as “Pass/No Pass”, and students must achieve a “Pass” to remain in the DMS program.

SONOG 220
OB/GYN Scanning & Pathology  4 Units
Hours: 36 hours LEC; 108 hours LAB
Prerequisite: SONOG 240 with a grade of “C” or better
Corequisite: SONOG 215
Enrollment Limitation: This course is only available to students who have been accepted into the most recent cohort and who remain in good standing within the DMS program. Students must take this course for a letter grade, and must earn a grade of “C” or better in this course to remain in the DMS program.

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 most recent DMS cohort. This course must be taken for a letter grade, and students must achieve a “C” or better to remain in the DMS program.

SONOG 225
Clinical Experience II  7 Units
Hours: 384 hours LAB
Prerequisite: SONOG 220 with a grade of “C” or better
Corequisite: SONOG 228
Enrollment Limitation: This course is only available to students who have been accepted into the most recent cohort and who remain in good standing within the DMS program. This course is graded “P/NP”, and students must earn a grade of “P” in this course to remain in the DMS program. Enrollment in all clinical experience courses requires all of the following:
1) successful completion of the ARDMS Sonography Principles & Instrumentation (SPI) exam;
2) must have obtained an approved clinical placement assigned by the CRC DMS program coordinator; and
3) must be enrolled in all co-requisite courses.

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 in to the most recent DMS cohort. This course is graded “Pass/No Pass”, and students must achieve a “Pass” to remain in the DMS program.

SONOG 228
Advanced OB/GYN Pathology  2 Units
Hours: 36 hours LEC
Prerequisite: SONOG 220 with a grade of “C” or better
Enrollment Limitation: This course is only available to students who have been accepted into the most recent cohort and who remain in good standing within the DMS program. Students must take this course for a letter grade, and must earn a grade of “C” or better in this course to remain in the DMS program.

This course builds upon lessons from SONOG 220 covering OB/GYN pathology and maternal-fetal complications. This course covers: High Risk Obstetrics in Sonography, Fetal Structural Abnormalities, Genetic Abnormalities and Syndromes. This course will also cover clinical assessments including interventional procedures and post-partum complications as well as pathology involving infertility. 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 most recent DMS cohort. This course must be taken for a letter grade, and students must achieve a “C” or better to remain in the DMS program.
SONOG 230
Vascular Scanning  4 Units
Hours: 36 hours LEC; 108 hours LAB
Prerequisite: SONOG 225 with a grade of “C” or better
Corequisite: SONOG 235
Enrollment Limitation: This course is only available to students who have been accepted into the most recent cohort and who remain in good standing within the DMS program. This course must be taken for a letter grade, and must earn a grade of “C” or better in this course to remain in the DMS program.

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 in to the most recent DMS cohort. This course must be taken for a letter grade, and students must achieve a “C” or better to remain in the DMS program.

SONOG 235
Clinical Experience III  9 Units
Hours: 512 hours LAB
Prerequisite: SONOG 228 with a grade of “C” or better
Corequisite: SONOG 230
Enrollment Limitation: This course is only available to students who have been accepted into the most recent cohort and who remain in good standing within the DMS program. This course is graded “P/NP”, and students must earn a grade of “P” in this course to remain in the DMS program. Enrollment in all clinical experience courses requires all of the following:
1) successful completion of the ARDMS Sonography Principles & Instrumentation (SPI) exam;
2) must have obtained an approved clinical placement assigned by the CRC DMS program coordinator; and
3) must be enrolled in all co-requisite courses.

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 in to the most recent DMS cohort. This course is graded “Pass/No Pass”, and students must achieve a “Pass” to remain in the DMS program.

SONOG 240
Superficial & Small Parts Scanning  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: SONOG 202 with a grade of “C” or better
Corequisite: SONOG 210
Enrollment Limitation: This course is only available to students who have been accepted into the most recent cohort and who remain in good standing within the DMS program. This course must be taken for a letter grade, and must earn a grade of “C” or better in this course to remain in the DMS program.

This course covers the basic positioning and scanning of pediatric, small part and 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 in to the most recent DMS cohort. This course must be taken for a letter grade, and students must achieve a “C” or better to remain in the DMS program.

SONOG 250
Sonography Interpretation & ARDMS/ARRT Exam Review  2 Units
Hours: 18 hours LEC; 54 hours LAB
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 most recent cohort and who remain in good standing within the DMS program. Students must take this course for a letter grade, and must earn a grade of “C” or better in this course to remain in the DMS program.

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 will also provide students with guidance to assist them in their independent study and preparation for the ARDMS and ARRT examinations. This course is available to students who have been accepted in to the most recent DMS cohort. This course must be taken for a letter grade, and students must achieve a “C” or better to remain in the DMS program.

SONOG 255
Clinical Experience IV  9 Units
Hours: 512 hours LAB
Prerequisite: SONOG 235 with a grade of “C” or better
Corequisite: SONOG 250
Enrollment Limitation: This course is only available to students who have been accepted into the most recent cohort and who remain in good standing within the DMS program. This course is graded “P/NP”, and students must earn a grade of “P” in this course to remain in the DMS program. Enrollment in all clinical experience courses requires all of the following:
1) successful completion of the ARDMS Sonography Principles & Instrumentation (SPI) exam;
2) must have obtained an approved clinical placement assigned by the CRC DMS program coordinator; and
3) must be enrolled in all co-requisite courses.

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 and criteria established by the CRC DMS program. Students will complete all final program competency evaluations and demonstrate the ability to perform all required examinations, including the ability to scan independently, under the direction of the assigned primary clinical site preceptor(s). This course is graded “Pass/No Pass”, and students must achieve a “Pass” to remain in the DMS program.
DEGREE
A.A. — Digital Media

CERTIFICATE OF ACHIEVEMENT
Digital Media

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

ASSOCIATE DEGREE
A.A. in Digital Media
CODE #1534

DEGREE REQUIREMENTS .............................................. UNITS
RTVF 300 Mass Media and Society .................................. 3
RTVF 302 Introduction to Digital Design & Storytelling ........... 3
RTVF 304 Introduction to Multimedia ................................ 3
RTVF 319 Beginning Audio Production ............................... 3
RTVF 330 Beginning Single Camera Production ..................... 3
RTVF 360 Introduction to Motion Graphics: Adobe After Effects .... 3
RTVF 362 Digital Non-Linear Video Editing ........................... 3
RTVF 368 Scriptwriting for Film, Video & Multimedia ............... 3
PHOTO 302 Beginning Digital Photography .......................... 3
A minimum of 3 units from the following:
RTVF 354 Audio Editing for Film & Video Post Production (3)
RTVF 361 Intermediate Motion Graphics: Adobe After Effects (3)
RTVF 365 Intermediate Film & Video Editing (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)
Total Units: ................................................................... 30

Associate Degree
The Digital Media Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Digital Media Certificate
CODE #1534

CERTIFICATE REQUIREMENTS ..................................... UNITS
RTVF 302 Introduction to Digital Design & Storytelling ........... 3
RTVF 319 Beginning Audio Production ................................ 3
RTVF 330 Beginning Single Camera Production ..................... 3
RTVF 360 Introduction to Motion Graphics: Adobe After Effects .... 3
RTVF 362 Digital Non-Linear Video Editing ........................... 3
A minimum of 3 units from the following:
RTVF 304 Introduction to Multimedia (3)
RTVF 306 Introduction to Media Aesthetics and Cinematic Arts (3)
RTVF 312 Beginning Radio Production (3)
RTVF 354 Audio Editing for Film & Video Post Production (3)
RTVF 361 Intermediate Motion Graphics: Adobe After Effects (3)
RTVF 365 Intermediate Film & Video Editing (3)
RTVF 368 Scriptwriting for Film, Video & Multimedia (3)
Total 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

Program Description
The Early Childhood Education AA degrees and certificates offer an interactive approach to acquiring the knowledge, skills and disposition necessary to work with young children birth to 12 years old. Students are guided by a group of experienced and qualified faculty in an in-depth study of the theories, principles and practices of early childhood and child development. After completing the lower division coursework, under the guidance of faculty and qualified mentors, students engage directly with young children, to practice the theories, principles and practices covered in the instructional courses.

The Early Childhood Education department strives to bring innovative, research based, current information and knowledge to students. Reflective practices and critical thinking is woven into all coursework leading to certificates and degrees. Emphasis is placed on developing professional and ethical dispositions to foster positive relationships with colleagues, family engagement, and the cultural sensitivity, awareness, and integration required to be effective early childhood educators.

The Early Childhood Education department believes in the importance of promoting an engaging, intellectually challenging, and creative learning environment. The Early Childhood Education’s philosophy is sustained through the Early Childhood Education Pathways to Success program. This program promotes a student centered, strength-based approach to foster the professional disposition to be a successful student and lifelong learner.

The Early Childhood Education Program is aligned to the Child Development and Early Childhood Education majors offered by several state universities. The course work in the CRC Early Childhood Education department is approved by the California Commission on Teacher Credentialing as meeting the requirements for the California Child Development Educational Permits.

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
Early Childhood Educators
Administrators and Directors of Early Childhood Programs
Professional Development Coordinators
Program Managers
Consultants
Family Life Specialists
Guidance Counselors
Social Workers
Art Therapists
Family Early Care and Education Teachers

Home Visitors
Instructors/Trainers
Technical Assistants
Specialist/Coaches
Family Specialists/Counselors
Early Intervention Specialists
Researchers
Children’s Librarians
Child Psychologists
Family Engagement Advocates
Special Education Teachers

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
AA Degrees and Certificates 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 qualify on the Child Development Permit.

-Continued on next page-
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 and ECE faculty 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

ASSOCIATE DEGREES

A.S.-T. in Early Childhood Education for Transfer
CODE #1982

Note to Transfer Students:
The Associate in Arts in Early Childhood Education (ECE) for Transfer Degree (AS-T) provides a clearly articulated curricular pathway for students who wish to pursue a degree option in the California State University (CSU) system. The degree is designed to serve the diverse needs of students interested in the breadth and depth of the field of early childhood education. Additionally, this degree exposes students to the core principles and practices of the field in order to build a foundation for their future personal, academic, or vocational paths.

The Associate in Science in ECE for Transfer Degree provides students with a major that fulfills the general requirements of the California State University for transfer. 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.

The Associate in Science in Early Childhood Education (ECE) for Transfer Degree (AS-T) may be obtained by the completion of 60 transferable, semester units with a minimum of a 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses), and (b) the Intersegmental General Education Transfer Curriculum (IGETC). The ECE courses required in this program are part of the CA Curriculum Alignment Project.

DEGREE REQUIREMENTS

ECE 312 Child Development ..............................................3
ECE 314 The Child, the Family and the Community ...............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 415 Children's Health, Safety and Nutrition ..................3
ECE 430 Culture and Diversity in Early Childhood Education ...3

Total Units.............................................................................26

Suggested Electives:
ANTH 300, 310; ART 430; BIOL 350; COMM 321, 325; ECE 350, 415, 498; ENGD 320; ENGLT 370; GEOG 306; HORT 300; MUSM 370; NUTRI 300; SOC 321; TA 401

Associate in Science in Early Childhood Education for Transfer Degree
The Associate in Science in Early Childhood Education for Transfer (AS-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

A.A. in 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.

DEGREE REQUIREMENTS

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 326 Making Learning Visible Through Observation and Documentation ..........................................................3
ECE 404 Children with Special Needs ..................................3

A minimum of 9 units from the following:
ECE 322 Promoting Children's Social Competence (3)
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)
ECE 320 Curriculum and Interactions in Early Childhood Education .................................................................4
ECE 430 Culture and Diversity in Early Childhood Education ...3
ECE 431 Advanced Practicum in Early Childhood Education ....4
ECE 415 Children's Health, Safety and Nutrition ..................3
ECE 424 Adult Supervision: Mentoring in a Collaborative Learning Setting .............................................................2

A minimum of 3 units from the following:
ECE 330 Infant and Toddler Development (3)
ECE 331 Care and Education of Infants and Toddlers (3)
ECE 356 Programs for the School-Age Child (3)
ECE 402 Infants with Atypical Development (3)

Total Units: .............................................................................43

Suggested Electives:
ANTH 300, 310; ART 430; BIOL 350; BUS 330; COMM 321, 325, 331, 361; ECE 350, 498; ENGW 400; ENGD 320; ENGLT 370; ENGW 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, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
ASSOCIATE DEGREES

A.A. in 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.

DEGREE REQUIREMENTS ........................................... UNITS
ECE 300 Introduction to Principles and Practices in Early Childhood Education .............. 3
ECE 312 Child Development (3) ......................................................................................... 3
ECE 314 The Child, the Family and the Community (3) .............. 3
ECE 326 Making Learning Visible Through Observation and Documentation.................. 3
ECE 404 Children with Special Needs ............................................................................. 3
A minimum of 3 units from the following:
ECE 322 Promoting Children’s Social Competence (3)
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)
A minimum of 3 units from the following:
ECE 330 Infant and Toddler Development (3)
ECE 331 Care and Education of Infants and Toddlers (3)
ECE 402 Infants with Atypical Development (3)
ECE 320 Curriculum and Interactions in Early Childhood Education ......................... 3
ECE 331 Care and Education of Infants and Toddlers (3)
ECE 326 Making Learning Visible Through Observation and Documentation.................. 3
Total Units: ................................................................................................................. 43

CERTIFICATE OF PROFICIENCY

Early Childhood Education, Associate Teacher Certificate
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.

CERTIFICATE REQUIREMENTS ....................................... UNITS
ECE 300 Introduction to Principles and Practices in Early Childhood Education .............. 3
ECE 312 Child Development (3) ......................................................................................... 3
ECE 314 The Child, the Family and the Community (3) .............. 3
ECE 326 Making Learning Visible Through Observation and Documentation.................. 3
ECE 320 Curriculum and Interactions in Early Childhood Education ......................... 3
Total Units: ................................................................................................................. 16

CERTIFICATE OF ACHIEVEMENT

Early Childhood Education, Infant Specialist Certificate
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.

CERTIFICATE REQUIREMENTS ....................................... UNITS
ECE 300 Introduction to Principles and Practices in Early Childhood Education .............. 3
ECE 330 Infant and Toddler Development (3) ................................................................... 3
ECE 312 Child Development (3) ......................................................................................... 3
ECE 330 Infant and Toddler Development (3) ................................................................... 3
ECE 326 Making Learning Visible Through Observation and Documentation.................. 3
ECE 331 Care and Education of Infants and Toddlers (3) ............................................. 3
ECE 320 Curriculum and Interactions in Early Childhood Education ......................... 3
Total Units: ................................................................................................................. 22

Suggested Electives:
ART 430, ENGL 370, MUSM 370, TA 401, COMM 321, ECE 350,
ECE 415, ECE 498, ENG 320, NUTRI 300, ANTH 300, BIOL 350,
GEOG 306, HORT 300, ANTH 310, COMM 325, SOC 321, ECE 356,
ECE 402

Associate in Arts Degree
The Early Childhood Education, Site Supervisor Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF ACHIEVEMENT
Early Childhood Education, School Age Child Care and Education Certificate
CODE #1098

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.

<table>
<thead>
<tr>
<th>COURSE</th>
<th>REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 300</td>
<td>Introduction to Principles and Practices in Early Childhood Education</td>
</tr>
<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
</tr>
<tr>
<td>ECE 314</td>
<td>The Child, the Family and the Community (3)</td>
</tr>
<tr>
<td>ECE 326</td>
<td>Making Learning Visible Through Observation and Documentation</td>
</tr>
<tr>
<td>ECE 404</td>
<td>Children with Special Needs</td>
</tr>
<tr>
<td>ECE 320</td>
<td>Curriculum and Interactions in Early Childhood Education</td>
</tr>
<tr>
<td>ECE 356</td>
<td>Programs for the School-Age Child (3)</td>
</tr>
<tr>
<td>ECE 321</td>
<td>Advanced Practicum in Early Childhood Education</td>
</tr>
</tbody>
</table>

Total Units: 26

CERTIFICATE ACHIEVEMENT
Early Childhood Education - Teacher Certificate
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.

<table>
<thead>
<tr>
<th>COURSE</th>
<th>REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 300</td>
<td>Introduction to Principles and Practices in Early Childhood Education</td>
</tr>
<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
</tr>
<tr>
<td>ECE 314</td>
<td>The Child, the Family and the Community (3)</td>
</tr>
<tr>
<td>ECE 326</td>
<td>Making Learning Visible Through Observation and Documentation</td>
</tr>
<tr>
<td>ECE 320</td>
<td>Curriculum and Interactions in Early Childhood Education</td>
</tr>
<tr>
<td>ECE 430</td>
<td>Culture and Diversity in Early Childhood Education</td>
</tr>
<tr>
<td>ECE 321</td>
<td>Advanced Practicum in Early Childhood Education</td>
</tr>
<tr>
<td>ECE 415</td>
<td>Children's Health, Safety and Nutrition</td>
</tr>
<tr>
<td>ECE 330</td>
<td>Infant and Toddler Development (3)</td>
</tr>
<tr>
<td>or ECE 331</td>
<td>Care and Education of Infants and Toddlers (3)</td>
</tr>
<tr>
<td>or ECE 356</td>
<td>Programs for the School-Age Child (3)</td>
</tr>
<tr>
<td>or ECE 402</td>
<td>Infants with Atypical Development (3)</td>
</tr>
</tbody>
</table>

A minimum of 16 units from the following:

<table>
<thead>
<tr>
<th>COURSE</th>
<th>REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGWR 300</td>
<td>College Composition (3)</td>
</tr>
<tr>
<td>MATH 300</td>
<td>Introduction to Mathematical Ideas (3)</td>
</tr>
<tr>
<td>FCS 324</td>
<td>Human Development: A Life Span (3)</td>
</tr>
<tr>
<td>PSYC 371</td>
<td>Life Span Developmental Psychology (3)</td>
</tr>
<tr>
<td>PHIL 310</td>
<td>Introduction to Ethics (3)</td>
</tr>
<tr>
<td>HUM 300</td>
<td>Classical Humanities (3)</td>
</tr>
<tr>
<td>PHOTO 420</td>
<td>History of Photography (3)</td>
</tr>
<tr>
<td>VIET 401</td>
<td>Elementary Vietnamese (4)</td>
</tr>
<tr>
<td>SPAN 401</td>
<td>Elementary Spanish (4)</td>
</tr>
<tr>
<td>DEAF 310</td>
<td>American Sign Language I (4)</td>
</tr>
</tbody>
</table>

To be eligible for the Child Development Permit (Teacher)
Students must complete 16 units in general education categories to be eligible for the Child Development Permit (Teacher Level) through California Commission on Teacher Credentialing. At least one course in each of the following GE areas must be completed: English, Math/Science, Social Science, Humanities/Fine Arts. See ECE Department for information on experience requirement for the Child Development Permits.

Total Units: 45
CERTIFICATE OF ACHIEVEMENT  
Early Childhood Education - Master Teacher Certificate  
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.

CERTIFICATE REQUIREMENTS 
_________________________________________________________UNITS
ECE 300 Introduction to Principles and Practices in Early Childhood Education…………………………………………3
ECE 312 Child Development (3) ..............................................3
ECE 314 The Child, the Family and the Community (3) ........3
ECE 326 Making Learning Visible Through Observation and Documentation..................................................3
ECE 404 Children with Special Needs (3) ............................3
ECE 320 Curriculum and Interactions in Early Childhood Education ..................................................4
ECE 430 Culture and Diversity in Early Childhood Education ....3
ECE 321 Advanced Practicum in Early Childhood Education ....4
ECE 415 Children's Health, Safety and Nutrition ..........3
ECE 424 Adult Supervision: Mentoring in a Collaborative Learning Setting .............................................2

A minimum of 16 units from the following:
ENGWR 300 College Composition (3)
MATH 300 Introduction to Mathematical Ideas (3)
FCS 324 Human Development: A Life Span (3)
or PSYC 371 Life Span Developmental Psychology (3)
PHIL 310 Introduction to Ethics (3)
or HUM 300 Classical Humanities (3)
or PHOTO 420 History of Photography (3)
VIET 401 Elementary Vietnamese (4)
or SPAN 401 Elementary Spanish (4)
or DEAF 310 American Sign Language I (4)

To be eligible for the Child Development Permit (Teacher)
Students must complete 16 units in general education categories to be eligible for the Child Development Permit (Master Teacher Level) through California Commission on Teacher Credentialing. At least one course in each of the following GE areas must be completed: English, Math/Science, Social Science, Humanities/Fine Arts. Students will select a Master Teacher “Specialization” consisting of six (6) units of focused content (see below).

See ECE Department for information on experience requirement for the Child Development Permits.

Subtotal Units: ................................................................................................................................. 47

Curriculum, Specialization Option
A minimum of 6 units from the following:
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)
ECE 322 Promoting Children's Social Competence (3)

Total Units: ................................................................................................................................. 53

Infant and Toddler Care, Specialization Option
A minimum of 6 units from the following:
ECE 331 Care and Education of Infants and Toddlers (3)
ECE 330 Infant and Toddler Development (3)
ECE 402 Infants with Atypical Development (3)

Total Units: ................................................................................................................................. 53

School-Age Care, Specialization Option
ECE 356 Programs for the School-Age Child…………………..3
ECE 350 Introduction to Elementary Teaching with Field Experience…………………..3

Total Units: ................................................................................................................................. 53
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
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. (C-ID ECE 120)

ECE 314
The Child, the Family and the Community 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 101 or 103; or ESL 320, ESLR 320, ESLW 320.
Course Transferable to CSU; UC
General Education: AA/AS Area III(b); CSU Area D; CSU Area E1; IGETC Area 4G
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
Hours: 36 hours LEC, 108 hours LAB
Prerequisite: ECE 300 and 312 with grades of “C” or better
Corequisite: ECE 326
Course Transferable to CSU
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 and documentation of all required vaccinations. (C-ID ECE 130)

ECE 321
Advanced Practicum in Early Childhood Education 4 Units
Hours: 36 hours LEC, 108 hours LAB
Prerequisite: ECE 300, 312, 320, and 326 with grades of “C” or better
Enrollment Limitation: Under California law (Title 22) any persons working directly with children must provide proof of current Tuberculosis clearance and provide any required proof of immunizations (currently: measles, pertussis, and influenza/influenza waiver).
Course Transferable to CSU
The advanced practicum 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, guiding behavior, group management, collaborative teaching, supporting 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 Introduction to Curriculum. 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 and documentation of all required vaccinations. (C-ID ECE 210)
ECE 322
Promoting Children's Social Competence  
3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Course Transferable to CSU  
General Education: AA/AS Area III(b)  
This course focuses on early childhood guidance and discipline through examination of theories, research and practical application for teachers in early childhood classrooms and families. 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  
Hours: 54 hours LEC  
Prerequisite: ECE 312 with a grade of “C” or better  
Course Transferable to CSU  
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  
Hours: 54 hours LEC  
Prerequisite: None.  
Course Transferable to CSU  
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  
Hours: 54 hours LEC  
Prerequisite: ECE 312 or 330 with a grade of “C” or better  
Course Transferable to CSU  
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 342
Constructive Math and Science in Early Childhood Education  
3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Course Transferable to CSU  
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  
Hours: 54 hours LEC  
Prerequisite: None.  
Course Transferable to CSU  
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  
Hours: 36 hours LEC; 54 hours LAB  
Prerequisite: None.  
Advisory: ECE 312  
Enrollment Limitation: Under California laws (Title 22 and Title 5) any persons working directly with children have to give proof of current Tuberculosis clearance.  
Course Transferable to CSU  
General Education: AA/AS Area III(b)  
This course introduces students to the concepts and issues related to teaching diverse learners in today's contemporary schools, Kindergarten through grade 12 (K-12). Course content includes teaching as a profession and career, historical and philosophical foundations of the American education system, contemporary educational issues, California's content standards and frameworks, and teacher performance standards, as well as observation skills, communication skills, diversity and social issues. In addition to class time, the course requires a minimum of 45 scheduled hours of structured fieldwork in public elementary school classrooms that represent California's diverse student population, and includes cooperation with campus-approved certificated classroom teachers. Students’ fieldwork experiences will integrate and apply the course content. Before beginning field placement, students must show proof of TB clearance. (C-ID EDUC 200)

ECE 356
Programs for the School-Age Child  
3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: ECE 312 with a grade of “C” or better  
Course Transferable to CSU  
This program will present the fundamentals of planning, implementing and evaluating programs for before- and after-school care of school-age children (K-6). Course emphasis is on developmental levels, age-appropriate activities and day-to-day program operation. A field trip may be utilized to enhance classroom instruction.
ECE 365  
Creative Projects and Experiences for Young Children  3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Course Transferable to CSU  
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  3 Units  
Hours: 54 hours LEC  
Prerequisite: ECE 312 with a grade of “C” or better  
Course Transferable to CSU  
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  3 Units  
Hours: 54 hours LEC  
Prerequisite: ECE 312 with a grade of “C” or better  
Course Transferable to CSU  
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  3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Course Transferable to CSU  
General Education: AA/AS Area III(b)  
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. (C-ID ECE 220)
ECE 494
Topics in Early Childhood Education 0.5 - 4 Units
Hours: 9 hours LEC
Prerequisite: None.
Enrollment Limitation: Students must verify paid registration to the conference.
Course Transferable to CSU
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
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
General Education: AA/AS Area III(b)
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
DEGREE
A.A.-T — Economics for Transfer

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 |
| Business Analyst | Budget Analyst |
| 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

A.A.-T. in Economics
CODE #1995

Program Description:
The Associate in Arts degree in Economics for Transfer provides students with a major that fulfills the general requirements of the California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system. The Associate in Arts degree in Economics for Transfer (AA-T) may be obtained by the completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program outlined below (earning a C or better in these courses) and (b) either the Inter-segmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.

DEGREE REQUIREMENTS

<table>
<thead>
<tr>
<th>DEGREE REQUIREMENTS</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 302 Principles of Macroeconomics</td>
<td>3</td>
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<tr>
<td>ECON 304 Principles of Microeconomics</td>
<td>3</td>
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<tr>
<td>ECON 310 Economic Statistics (3)</td>
<td>3 - 4</td>
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<tr>
<td>or PSYC 330 Introductory Statistics for the Behavioral Sciences (3)</td>
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<tr>
<td>or STAT 300 Introduction to Probability and Statistics (4)</td>
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<tr>
<td>MATH 341 Calculus for Business and Economics (4)</td>
<td>4 - 5</td>
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<tr>
<td>or MATH 400 Calculus I (5)</td>
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<tr>
<td>ACCT 301 Financial Accounting (4)</td>
<td>3 - 5</td>
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<tr>
<td>or ACCT 311 Managerial Accounting (4)</td>
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<tr>
<td>or MATH 401 Calculus II (5)</td>
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<tr>
<td>or CIS 310 Introduction to Computer Information Science (3)</td>
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<tr>
<td>ECON 306 Environmental Economics (3)</td>
<td>3</td>
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<tr>
<td>or AGB 321 Agriculture Economics (3)</td>
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</tr>
</tbody>
</table>

Total Units: 19 - 23

1 or any course not used in List A

Associate in Arts for Transfer Degree
The Associate in Arts degree in Economics for Transfer (AA-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program; and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.
ECON 100
Introduction to Economics  
Hours: 54 hours LEC  
Prerequisite: None.  
General Education: AA/AS Area V(b)

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  
Hours: 18 hours LEC; 54 hours LAB

ECON 300
Survey of Economics  
Hours: 54 hours LEC  
Prerequisite: None.  
Course Transferable to CSU; UC  
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4

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 our economy faces (unemployment, pollution, taxes, inflation, national debt, poverty, crime, international trade, etc.) and how economic theory can be used to investigate these pressing issues.

ECON 302
Principles of Macroeconomics  
Hours: 54 hours LEC  
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.  
Course Transferable to CSU; UC  
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4B

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. (C-ID ECON 201)

ECON 304
Principles of Microeconomics  
3 Units  
Hours: 54 hours LEC  
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.  
Course Transferable to CSU; UC  
General Education: AA/AS Area V(b); CSU Area D2; IGETC Area 4B

This course focuses on statistical concepts commonly used in economics, business and other behavioral sciences. It covers the collection, organization, presentation, analysis, and interpretation of numerical data. Major topics include organizing and describing data using graphs, tables, and charts; calculating and interpreting descriptive statistics including measures of central tendency and measures of dispersion; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-square and t-tests. Computer software and/or hand calculations will be used in this course to calculate, organize and display statistical information. Results generated either by hand calculation, the use of computer software, articles or textbook examples will be used to analyze and interpret statistical findings. (C-ID MATH 110)
ECON 320
Concepts in Personal Finance 3 Units
Same As: BUS 320
Hours: 54 hours LEC
Prerequisite: None.
Advisory: BUS 105
Course Transferable to CSU
General Education: AA/AS Area V(b)
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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 completing Intermediate Algebra (MATH 125).
- 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.

ASSOCIATE DEGREES
A.A.-T. in Elementary Teacher Education for Transfer
CODE #1984

The Associate in Arts in Elementary Teacher Education for Transfer Degree (AA-T) is designed to provide a seamless transfer pathway for students interested in pursuing at least one Elementary Teacher Education degree option in the California State University (CSU) system. The degree is comprised of lower division coursework typically required by CSU institutions. Students must complete the core curriculum and electives to meet a total of 60 transferable units, which includes the CSU General Education Breadth or the Intersegmental General Education Transfer Curriculum (IGETC) pattern. 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.

DEGREE REQUIREMENTS ............................................................ UNITS
ECE 350 Introduction to Elementary Teaching with Field Experience .................................................. 3
GEOL 305 Earth Science ........................................................................... 3
GEOL 306 Earth Science Laboratory ...................................................... 1
COMM 301 Introduction to Public Speaking ............................................. 3
ENGWR 300 College Composition .......................................................... 3
MATH 310 Mathematical Discovery .......................................................... 3
BIOL 307 Biology of Organisms (4) ......................................................... 4
or BIOL 310 General Biology (4) .............................................................. 4
HIST 307 History of World Civilizations to 1500........................................ 3
ENGWR 301 College Composition and Literature .................................... 3
GEOG 320 World Regional Geography .................................................... 3
POLIS 301 Introduction to Government: United States ............................ 3
HIST 312 History of the United States (to 1865) ........................................ 3
ECE 312 Child Development .................................................................... 3
PHYS 310 Conceptual Physics (3) ............................................................ 3
COMM 311 Argumentation and Debate (3) ................................................. 3
or COMM 315 Persuasion (3) ................................................................. 3
or ENGWR 302 Advanced Composition and Critical Thinking (3) ............
ARTH 300 Introduction to Art (3) ............................................................. 3
or MUFHL 300 Introduction to Music (3)
or TA 300 Introduction to the Theatre (3)

Total Units: .................................................................................................. 47

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

– Continued on next page –
Associate in Arts in for Transfer Degree

The Associate in Arts in Elementary Teacher Education for Transfer for Transfer (AA-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

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 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.

ASSOCIATE DEGREES
A.A. in 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.

DEGREE REQUIREMENTS ......................................................... UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ENGW 300</td>
<td>College Composition</td>
<td>3</td>
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<tr>
<td>COMM 361</td>
<td>The Communication Experience</td>
<td>3</td>
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<tr>
<td>ENGD 305</td>
<td>Structure of English</td>
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<td>ENGW 302</td>
<td>Advanced Composition and Critical Thinking</td>
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<td>MATH 310</td>
<td>Mathematical Discovery</td>
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<td>BIOL 307</td>
<td>Biology of Organisms (4)</td>
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<tr>
<td>or BIOL 310</td>
<td>General Biology (4)</td>
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<tr>
<td>GEOL 305</td>
<td>Earth Science</td>
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<tr>
<td>GEOL 306</td>
<td>Earth Science Laboratory</td>
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<td>HIST 312</td>
<td>History of the United States (to 1865)</td>
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<tr>
<td>ECON 302</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
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<tr>
<td>POLS 301</td>
<td>Introduction to Government: United States</td>
<td>3</td>
</tr>
<tr>
<td>HIST 307</td>
<td>History of World Civilizations to 1500</td>
<td>3</td>
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<td>HIST 308</td>
<td>History of World Civilizations, 1500 to Present</td>
<td>3</td>
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<tr>
<td>ENGD 320</td>
<td>Service Learning: Tutoring</td>
<td>3</td>
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<tr>
<td>ECE 350</td>
<td>Introduction to Elementary Teaching</td>
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<tr>
<td>ART 430</td>
<td>Art and Children</td>
<td>3</td>
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<tr>
<td>ECE 312</td>
<td>Child Development (3)</td>
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<tr>
<td>SOC 321</td>
<td>Race, Ethnicity and Inequality in the United States (3)</td>
<td>3</td>
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<tr>
<td>or COMM 325</td>
<td>Intercultural Communication (3)</td>
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<tr>
<td>or ENGLT 336</td>
<td>Race and Ethnicity in</td>
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<td></td>
<td>Contemporary American Literature (3)</td>
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Total Units: ........................................................................ 53

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.

Associate in Arts Degree

The Liberal Studies for Elementary Education Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

1 The program requirements listed here for CSUS apply to students completing this course sequence by Fall 2007. Students should contact a counselor about the new program requirements which were effective with the Fall 2004-05 catalog.
CERTIFICATE OF PROFICIENCY
Emergency Medical Technician

EMERGENCY MEDICAL TECHNICIAN
Emergency Medical Technicians-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 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.

EMT certification is 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):
Firefighter          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 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

CERTIFICATE OF PROFICIENCY
Emergency Medical Technician Certificate
CODE #1508

Students seeking to become a state certified EMT should take the EMT 100 course. The EMT 100 course fulfills the requirements for State EMT certification (NREMT) testing.

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 and is approved by the Sacramento County Health Department, Division of Emergency Medical Services, and the certifying agency for Sacramento County. EMT 100 course completion is mandatory for all personnel who wish to pursue State certification as an EMT. EMT certification from Sacramento County Health Department, Division of Emergency Medical Services 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. Together with varying levels of actual on-the-job experience, it is often required for admission to Paramedic training programs throughout the state and county.

EMT 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 allied health professions, by offering a distinct advantage in patient assessment and critical interventions skills, as well as the ability to obtain valuable work experience. Cosumnes River College’s EMT 100 students will gain actual experience by spending hours off-campus in operating ambulance units and in hospital emergency departments.

CERTIFICATE REQUIREMENTS .............................. UNITS
EMT 100  Emergency Medical Technician ....................... 7.5
Total Units: .................................................. 7.5
EMERGENCY MEDICAL TECHNOLOGY (EMT)

EMT 100
Emergency Medical Technician 7.5 Units
Hours: 18 hours LEC; 54 hours LAB
Prerequisite: None

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 pre-employment 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 and drug screens, purchase uniforms and liability insurance, verify immunizations and have Tb clearance. Other requirements may be necessary 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 jaw line 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. To become Certified (Licensed) as an EMT in California all applicants must be legal citizens, possess a high school diploma (GED), be at least 18 years old, pass background check, and have valid social security number. For more information please go to State EMS office website - www.emsa.ca.gov

EMT 102
Emergency Medical Care Refresher 1.5 Units
Hours: 18 hours LEC; 27 hours LAB
Prerequisite: Current certification as an Emergency Medical Technician (I) or Basic.

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) re-certification by Sacramento Emergency Medical Services Agency, BLS (CPR) cards are not issued in the completion of this course. Students that have expired EMT 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 109
Emergency Medical Responder 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.

This course is an introduction to the principles and practices of the Emergency Medical Services (EMS). It provides the knowledge and skills needed to integrate the care provided through the EMS system.

EMT 298
Work Experience in Emergency Medical Technology 1 - 4 Units
Hours: 60 - 300 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Emergency Medical Technology.

General Education: AA/AS Area III(b)

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
Pre-Professional Transfer Opportunities

DEGREE
A.S. — Engineering, Civil Mechanical Option
A.S. — Engineering, Electrical/Computer Option
A.S. — Science, General (please see page 373 for more info)

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
Materials Scientist, and 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/pсло

ASSOCIATE DEGREES
A.S. in Engineering - Civil/Mechanical Option
CODE #1482
This degree is designed to meet common lower division requirements for a major in Engineering.

DEGREE REQUIREMENTS ......................................... UNITS
CHEM 400 General Chemistry I .................................. 5
CISP 360 Introduction to Structured Programming (4) .... 4
ENGR 400 Introduction to Electrical Circuits and Devices  3
ENGR 312 Engineering Graphics ................................ 3
ENGR 420 Statics ................................................... 3
ENGR 412 Properties of Materials ............................... 4
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: ................................................................ 49

¹ Check specific university requirements before choosing a course

Suggested Electives:
PHYS 431; MATH 410

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.

A.S. in Engineering - Electrical/Computer Option
CODE #
CRC's program provides the foundation in mathematics, physics, and engineering necessary to transfer to a university and complete a bachelor's degree in engineering. Engineering involves the application of scientific and mathematical principles needed to solve practical technical problems. Although the first two years of engineering courses for all engineering degrees are similar, students should consult the lower division requirements of the institution to which they wish to transfer.

DEGREE REQUIREMENTS ......................................... UNITS
CHEM 400 General Chemistry I .................................. 5
CISP 360 Introduction to Structured Programming (4) .... 4
ENGR 400 Introduction to Electrical Circuits and 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: ................................................................ 39

Associate Degree
The Engineering - Electrical/Computer Option Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
ENGINEERING (ENGR)

ENGR 300
Introduction to Engineering 1 Unit
Hours: 18 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
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 304
How Things Work 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: MATH 100
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3
This course covers how everyday things and technologies operate and is designed primarily for non-science students or anyone interested in learning about technology. The basic scientific principles behind the technology will be explored. Systems studied will include mechanical, electrical, thermal, optical and others. Students will gain hands-on experience with basic machines and technologies during lab.

ENGR 312
Engineering Graphics 3 Units
Hours: 36 hours LEC; 72 hours LAB
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 CSU; UC
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
Hours: 54 hours LEC; 18 hours LAB
Prerequisite: PHYS 421 with a grade of “C” or better
Course Transferable to CSU; UC
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 412
Properties of Materials 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: CHEM 400 and PHYS 411 with grades of “C” or better
Course Transferable to CSU; UC
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.

ENGR 420
Statics 3 Units
Hours: 54 hours LEC; 18 hours LAB
Prerequisite: PHYS 421 with a grade of “C” or better
Course Transferable to CSU; UC
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. (C-ID ENGR 130)

ENGR 495
Independent Studies in Engineering 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
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
General Education: AA/AS Area III(b)
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
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. Stanford University says it best: “Careers no longer follow the linear paths that they have for previous generations. The skills you develop as an English major—including technical analysis and interpretation, critical and creative writing, and historical synthesis—prepare you for a range of possible careers.” English majors become “copywriters… social workers, entrepreneurs [and] filmmakers.” No matter where you plan to transfer, this degree will give you the skills and flexibility to follow your heart toward any number of dynamic careers. For more details, please see: https://english.stanford.edu/information-for/undergraduates/careers-after-english-major

Career Opportunities
Advertising
Business
Columnist/Journalist
Editor/Evaluator
Information Specialist
Interpreter
Lawyer
Legislative Assistant
Librarian
Manager
Non-Profit Fundraiser
Program Developer
Public Relations
Publisher
Researcher
Teacher
Technical Writer
Television Developer
Video Game Designer
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

ASSOCIATE DEGREES
A.A. in 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.

DEGREE REQUIREMENTS ........................................................... UNITS
Core Requirements-eighteen (18) units:
ENGWR 300 College Composition...............................3
ENGWR 301 College Composition and Literature (3)........3
or ENGWR 302 Advanced Composition and Critical Thinking (3)
ENGLT 320 American Literature I .....................................3
ENGLT 321 American Literature II ....................................3
ENGLT 310 English Literature I ........................................3
ENGLT 311 English Literature II .....................................3

Electives: A minimum of 6 units from the following:
ENGED 305 Structure of English (3)
ENGED 320 Service Learning: Tutoring Elementary Students in Reading (3)
ENGWR 330 Writing for Publication (3)
or JOUR 340 Writing for Publication (3)
ENGWR 331 Writing for Publication (3)
ENGCW 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 and Ethnicity in Contemporary 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 I (3)
ENGLT 341 World Literature II (3)
ENGLT 370 Children and Literature (3)
ENGLT 330 African American Literature (3)
ENGLT 303 Introduction to the Short Story (3)
ENGLT 402 Introduction to Shakespeare and Film (3)

Total Units: .............................................................................. 24

Associate Degree
The English Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
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.
ENGW 430
Creative Non-Fiction Writing Workshop 3 Units
Hours: 54 hours LEC
Prerequisite: ENGWR 101 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC (ENGCW 400, 410, 420, or 430 combined: maximum transfer credit is two courses)

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.

ENGW 452
College Literary Magazine 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: None
Advisory: ENGWR 101, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU

Obtain hands-on experience as an editor for a nationally distributed and award-winning literary journal. Write, select, and edit manuscripts in the genres of poetry, short fiction, and creative non-fiction. Correspond with established authors and artists to create the campus’s annual literary journal. Learn to use a submission manager and obtain tips on publishing your writing from the editor’s point of view.

ENGW 480
Honors Seminar: Creative Writing and Culture 3 Units
Hours: 54 hours LEC
Prerequisite: ENGWR 101 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU

General Education: AA/AS Area I; CSU Area C2

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.

ENGW 495
Independent Studies in English - Creative Writing 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU

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.

ENGW 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
ENGLISH - LABORATORY (ENGLB)

ENGLB 70
Writing Center I 0.5 - 1 Unit
Hours: 27 - 54 hours LAB
Prerequisite: None.
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 0.5 - 1 Unit
Hours: 27 - 54 hours LAB
Prerequisite: None.
Advisory: ENGRD 19, ENGWR 42, or ESLW 40, or equivalent skills demonstrated through the assessment process.
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 0.5 - 1 Unit
Hours: 27 - 54 hours LAB
Prerequisite: None.
Advisory: ENGRD 59, ENGWR 58, or ESLW 50, or equivalent skills demonstrated through the assessment process.
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 0.5 - 1 Unit
Hours: 27 - 54 hours LAB
Prerequisite: None.
Advisory: ENGWR 101, ENGWR 300, ESLW 310, or ESLW 320, or equivalent skills demonstrated through the assessment process.
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 ENGWR 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 0.5 - 1 Unit
Hours: 27 - 54 hours LAB
Prerequisite: None.
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 0.5 - 1 Unit
Hours: 27 - 54 hours LAB
Prerequisite: None.
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 312, or ENGRD 110. Students may enroll through the 9th week of the semester. The course be added until the end of the 9th week of the semester.

ENGLB 77
Reading Center III 0.5 - 1 Unit
Hours: 27 - 54 hours LAB
Prerequisite: None.
Advisory: ENGRD 59, ENGWR 58, or ESLR 50, or equivalent skills demonstrated through the assessment process.
Reading Center II is an independent study course designed to meet the needs of students who need practice in reading skills necessary for college success. Students meet with an instructor for determination of reading needs, and an agreed upon prescription is then developed. Students may elect to take the course for .5 to 1.0 unit. This course may be recommended for students enrolled in ENGRD 59/ENGWR 58 or ESLR 40, but may be taken by any student in any discipline where reading demands are significant and where the student may not be prepared. 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 78
Reading Center IV 0.5 - 1 Unit
Hours: 27 - 54 hours LAB
Prerequisite: None.
Advisory: ENGRD 110, ENGRD 310, ENGRD 312, ESLR 310, or ESLR 320, or equivalent skills demonstrated through the assessment process.
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
See Experimental Offerings
### ENGLISH - LITERATURE (ENGLT)

#### ENGLT 303
**Introduction to the Short Story**  
3 Units  
**Hours:** 54 hours LEC  
**Prerequisite:** ENGW 101 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.  
**Course Transferable to CSU; UC**  
**General Education:** AA/AS Area I; CSU Area C2; IGETC Area 3B  
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 310
**English Literature I**  
3 Units  
**Hours:** 54 hours LEC  
**Prerequisite:** ENGW 300 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.  
**Course Transferable to CSU; UC**  
**General Education:** AA/AS Area I; CSU Area C2; IGETC Area 3B  
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 II**  
3 Units  
**Hours:** 54 hours LEC  
**Prerequisite:** ENGW 300 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.  
**Course Transferable to CSU; UC**  
**General Education:** AA/AS Area I; CSU Area C2; IGETC Area 3B  
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. (C-ID ENGL 165)

#### ENGLT 320
**American Literature I**  
3 Units  
**Hours:** 54 hours LEC  
**Prerequisite:** ENGW 300 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.  
**Course Transferable to CSU; UC**  
**General Education:** AA/AS Area I; CSU Area C2; IGETC Area 3B  
This course is a survey of the more representative works in American literature from early America through the Civil War. (C-ID ENGL 130)

#### ENGLT 321
**American Literature II**  
3 Units  
**Hours:** 54 hours LEC  
**Prerequisite:** ENGW 300 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.  
**Course Transferable to CSU; UC**  
**General Education:** AA/AS Area I; CSU Area C2; IGETC Area 3B  
Students will survey the representative works in American Literature after the Civil War. (C-ID ENGL 130)

#### ENGLT 330
**African American Literature**  
3 Units  
**Hours:** 54 hours LEC  
**Prerequisite:** ENGW 101 with a grade of "C" or better  
**Course Transferable to CSU; UC**  
**General Education:** AA/AS Area I; CSU Area C2; IGETC Area 3B  
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 335
**Latino, Mexican-American, and Chicano Literature**  
3 Units  
**Hours:** 54 hours LEC  
**Prerequisite:** None.  
**Advisory:** Eligibility for ENGW 300.  
This course explores literature (poetry, short stories, novels, creative nonfiction, and performance) authored by Latinx writers. It typically examines the following themes: resistance, survival, identity, homeland, immigration, the border, socio-political activism, gender, and sexuality. All or most of each text is in English. Knowledge of the Spanish language is helpful but not required.

#### ENGLT 336
**Race and Ethnicity in Contemporary American Literature**  
3 Units  
**Hours:** 54 hours LEC  
**Prerequisite:** ENGW 101 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.  
**Course Transferable to CSU; UC**  
**General Education:** AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B  
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 I**  
3 Units  
**Hours:** 54 hours LEC  
**Prerequisite:** ENGW 300 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.  
**Course Transferable to CSU; UC**  
**General Education:** AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B  
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. (C-ID ENGL 140)

#### ENGLT 341
**World Literature II**  
3 Units  
**Hours:** 54 hours LEC  
**Prerequisite:** ENGW 300 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.  
**Course Transferable to CSU; UC**  
**General Education:** AA/AS Area I; CSU Area C2; IGETC Area 3B  
This course is a survey of significant masterpieces from mid-seventeenth to late-twentieth century literature. (C-ID ENGL 145)
ENGLT 343
Contemporary Third World Literature 3 Units
Hours: 54 hours LEC
Prerequisite: Eligibility for ENGWR 300, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
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
Hours: 54 hours LEC
Prerequisite: Eligibility for ENGWR 300
Course Transferable to CSU; UC
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
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
Hours: 54 hours LEC
Prerequisite: Eligibility for ENGWR 300.
Course Transferable to CSU; UC
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
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
Hours: 54 hours LEC
Prerequisite: Eligibility for ENGWR 300, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU
General Education: AA/AS Area I; CSU Area C2
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. (C-ID ENGL 180)

ENGLT 402
Introduction to Shakespeare and Film 3 Units
Hours: 54 hours LEC
Prerequisite: ENGWR 101 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
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 488
Honors - Literature Adapted into Film 3 Units
Same As: HONOR 378
Hours: 54 hours LEC
Prerequisite: ENGWR 101 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.
Advisory: ENGRD 110 with a grade of "C" or better
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 CSU; UC
General Education: AA/AS Area II(b); AA/AS Area I; CSU Area C1; CSU Area C2; IGETC Area 3A; IGETC Area 3B
This course analyzes the process, challenges, failures, and successes of adapting literary and stage material into film. It compares faithful and unfaithful adaptations through reading the original texts and viewing the adapted films with an awareness of their historical and cultural contexts. The course examines intention, creative distinctions, as well as limits and strengths of each medium. This course requires at least one research essay proposing and justifying details for an adaptation and including appropriate MLA documentation. This course is the same as HONOR 378. This course, under either name, may be taken one time for credit.

ENGLT 495
Independent Studies in Literature 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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.
ENGLISH - READING (ENGRD)

ENGRD 19
Foundations of Reading and Writing Improvement 3 Units
Same As: ENGWR 42
Hours: 54 hours LEC
Prerequisite: Enrollment in the course will be limited by skills of students in reading and writing as demonstrated through the assessment process.
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 59
Reading Development with Writing 4 Units
Same As: ENGWR 58
Hours: 72 hours LEC
Prerequisite: ENGRD 19 or ENGWR 42 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
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 ENGWR 58, and only one may be taken for credit.

ENGRD 110
Comprehension Strategies and Vocabulary Development For College 3 Units
Hours: 54 hours LEC
Prerequisite: ENGRD 59, or ENGWR 58 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
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 113
Reading and Writing Skills for College 4.5 Units
Same As: ENGWR 109
Hours: 72 hours LEC, 27 hours LAB
Prerequisite: ENGRD 59 or ENGWR 58 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
This integrated reading and writing course is designed to accelerate the preparation for college reading and writing competency requirement for students who are assessed into one level below transfer English courses. This course prepares students for ENGRD 310/312 and ENGWR 300 with integrated teaching and learning in both reading and writing to accelerate a pathway for English Reading and Writing requirements. Students will learn to develop reading skills in vocabulary expansion, unlocking meanings with context clues and word parts, increasing comprehension, SQ3R, and critical thinking. Students will also learn to develop skills in writing correct, clear, and concise sentences with proper English grammar that transfer to well developed and organized paragraphs and essays. Other skills include paraphrasing, summarizing, pre-reading and pre-writing techniques, revising and editing essays, analyzing and comparing ideas, identifying author’s tone, bias, and purpose. This course is most ideal for students who are assessed into both ENGRD 110 and ENGWR 101. Upon successful completion of this course, students will have met the prerequisites for ENGRD 310/312 and ENGWR 300. This course may include a departmental final. This course is the same as ENGWR 109, and only one may be taken for credit.

ENGRD 119
College Textbook Reading Skills 0.5 Units
Hours: 27 hours LAB
Prerequisite: None.
This course offers instruction in academic reading skills to students who are concurrently enrolled in a college course. The instruction includes informal lecture, self-paced individual work, workshop, guided practice, and assisted learning. Pass or No Pass only.

ENGRD 200
Reading the American Cultural Experience 3 Units
Hours: 54 hours LEC
Prerequisite: ENGRD 110 or ESLR 320 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Enrollment Limitation: This course is not open to students who have already completed ENGRD 310; Critical Reading as Critical Thinking or ENGRD 312; Academic Textbook Reading.
General Education: AA/AS Area VI
This academic English Reading course examines the crucial questions of what it means to read critically and at college level. Students will engage in extensive reading in and out of class as they focus on analyzing and interpreting a variety of texts. The focus of required reading will be on using language to analyze and interpret multicultural issues and conflicts which arise in diverse cultural settings and communities. The purpose of this language study will be to develop academic vocabulary, academic research and writing skills, and the ability to read and think analytically and critically about the written word. Concurrent enrollment in ENGLB 74 (Writing Center IV) or ENGLB 78 (Reading Center IV) will allow for concentrated independent study on the content and requirements of the course.

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
Hours: 54 hours LEC
Prerequisite: ENGRD 110 or ESLR 320 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Advisory: ENGLB 70, ENGWR 101, or ESLW 320
Course Transferable to CSU
General Education: AA/AS Area I(b); CSU Area A3
This course covers the theory and practice of essential reading skills for proficient academic performance with an emphasis on (1) reading strategy applications in textbook, fiction, and nonfiction, (2) critical analysis and evaluation of college level academic texts in multicultural writings, fiction and non-fiction reading, (3) critical and analytical evaluation of college level expository, narrative, descriptive, and argumentative essays and research, (4) development and expansion of critical thinking skills required in today’s diverse work environment, (5) vocabulary development, and (6) development of flexibility in reading rate. This course meets the Reading Competency requirement for the AA and AS degrees, and is CSU transferable. Additional work in the Reading and Writing Center (ENGLB 70 or 75) may be advised.

ENGRD 311
Intensive Critical Thinking for College Success 4 Units
Hours: 72 hours LEC
Prerequisite: ENGRD 59 or ENGWR 58 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU
General Education: AA/AS Area I(b); CSU Area A3
This course emphasizes the theory and application of critical thinking through reading expository, argumentative, fictional and nonfictional literature and works to develop the following: critical and analytical reading skills for college-level text, critical and analytical evaluation in research, synthesizing information to form logical conclusions, comparing and evaluating multiple sources, application in critical reading strategies across the discipline, vocabulary development and expansion for college-level reading. This accelerated course is for students who are ready for the challenge of an intensive learning experience at college level. This course meets the Reading Competency requirement for AA and AS degrees and is CSU transferable.

ENGRD 312
Academic Textbook Reading 3 Units
Hours: 54 hours LEC
Prerequisite: ENGRD 110 or ESLR 320 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Advisory: ENGLB 70, ENGLB 75, ENGWR 101, or ESLW 320
Course Transferable to CSU
This course refines students’ skills and ability to read, understand, and respond to college-level textbooks across the curriculum. Emphasis is placed on discipline-based vocabulary, critical reading and thinking strategies, interpretation of visual aids and data, and employing appropriate reading rate to fulfill the purpose of reading. This course meets the Reading Competency requirement for the A.A. and A.S. degrees, and is CSU transferable. Students are encouraged to also enroll in ENGLB 70 or 75 for access to individualized help in the Reading and Writing Center.

ENGRD 495
Independent Studies in English - Reading 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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 - WRITING (ENGWR)

ENGWR 44
Basics of Sentence Structure 1.5 Units
Hours: 27 hours LEC
Prerequisite: None.
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 58 or ENGWR 101 or college composition for ENGWR 300. Graded on a pass/no pass basis.

ENGWR 51
Developmental Writing 4 Units
Hours: 72 hours LEC
Prerequisite: None.
ENGWR 51 prepares students for ENGWR 101 through a focus on reading and writing as integrally related skills. Students will study and practice reading comprehension, the writing process, and critical thinking through the development of clear and correct sentences. Students will also develop the skills necessary to write a variety of focused, developed, organized paragraphs and essays. Students will be responsible for writing at least six full-process essays. The course may include a departmental final or portfolio assessment.

ENGWR 55
Fluency and Style in English Writing 1.5 Units
Hours: 27 hours LEC
Prerequisite: None.
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  
Hours: 72 hours LEC  
Prerequisite: ENGRD 19 or ENGWR 42 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.  
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  
Hours: 20 hours LEC, 21 hours LAB  
Prerequisite: None.  
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  
Hours: 72 hours LEC  
Prerequisite: ENGRD 59, ENGWR 51, or ENGWR 58 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.  
This course focuses on the connections between critical thinking, writing, and reading that are necessary for the independent development of essays in ENGWR 300 and other transfer-level courses. It emphasizes writing in response to various reading selections, including at least one full-length work. The essay writing process includes prewriting, thesis development and organization of ideas, drafting of essays, and revision. The course also requires outside research and includes an introduction to basic formatting and referencing of sources using MLA-style documentation. Students will write a minimum of four full-process essays totaling at least 4500 words.

ENGWR 108  
**Accelerated College Writing**  
3 Units  
Hours: 54 hours LEC  
Prerequisite: ENGWR 51 or 58 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.  
Corequisite: ENGWR 300  
This course provides intensive instruction and practice in the critical thinking and writing skills necessary for success in college composition. Assignments are often connected to the students’ assignments in ENGWR 300. The course includes the drafting, revision, and editing processes as well as instruction in critical thinking, reading comprehension, grammar, mechanics, and usage.

ENGWR 109  
**Reading and Writing Skills for College**  
4.5 Units  
Same As: ENGRD 113  
Hours: 72 hours LEC, 27 hours LAB  
Prerequisite: ENGWR 59 or ENGWR 58 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.  
This integrated reading and writing course is designed to accelerate the preparation for college reading and writing competency requirement for students who are assessed into one level below transfer English courses. This course prepares students for ENGRD 310/312 and ENGWR 300 with integrated teaching and learning in both reading and writing to accelerate a pathway for English Reading and Writing requirements. Students will learn to develop reading skills in vocabulary expansion, unlocking meanings with context clues and word parts, increasing comprehension, SQ3R, and critical thinking. Students will also learn to develop skills in writing correct, clear, and concise sentences with proper English grammar that transfer to well developed and organized paragraphs and essays. Other skills include paraphrasing, summarizing, pre-reading and pre-writing techniques, revising and editing essays, analyzing and comparing ideas, identifying author’s tone, bias, and purpose. This course is most ideal for students who are assessed into both ENGRD 110 and ENGWR 101. Upon successful completion of this course, students will have met the prerequisite for ENGRD 310/312 and ENGWR 300. This course may include a departmental final. This course is the same as ENGRD 113, and only one may be taken for credit.

ENGWR 110  
**College Reading and Writing Skills**  
4 Units  
Hours: 72 hours LEC  
Prerequisite: None.  
This pre-transfer-level course is designed to prepare students for success in ENGWR 300 and other courses that require writing. Students will read primarily transfer-level non-fiction texts of varying length, and write essays responding to and incorporating these readings. The course will focus on reading and writing fundamentals, such as active reading strategies, writing process, thesis development, paragraph structure, logical support, and sentence awareness.

ENGWR 300  
**College Composition**  
3 Units  
Hours: 54 hours LEC  
Prerequisite: ENGWR 101 or equivalent skills demonstrated through the assessment process. Grade of “C” or better required to meet prerequisite.  
Course Transferable to CSU; UC  
General Education: AA/AS Area IId(a); CSU Area A2; IGETC Area 1A  
This course offers instruction in critical thinking, reading and writing, and is designed to help the student demonstrate, in both argumentative and expository prose, sound logic and/or argumentation, 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
Hours: 54 hours LEC
Prerequisite: ENGWR 300, ENGWR 480, ESLW 340, or HONOR 375 with a grade of "C" or better
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area A3; CSU Area C2; IGETC Area 1B; IGETC Area 3B
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
Hours: 54 hours LEC
Prerequisite: ENGWR 300 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area II(b); CSU Area A3; IGETC Area 1B
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
Hours: 18 hours LEC
Prerequisite: ENGWR 101 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Advisory: LIBR 318
Course Transferable to CSU; UC
Learn to add credibility and to avoid plagiarism in your writing as you explore the principles and mechanics of documenting research while developing critical thinking skills. The final product of the course is a well-researched argumentative essay that shows mastery of the documentation style guidelines of the Modern Language Association of America (MLA).

ENGWR 330
Writing for Publication 3 Units
Same As: JOUR 340
Hours: 54 hours LEC
Prerequisite: ENGWR 300, ENGWR 480, HONOR 375, or JOUR 340 with a grade of “C” or better
Course Transferable to CSU
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
Hours: 54 hours LEC
Prerequisite: ENGWR 300 with a grade of "C" or better
Advisory: ENGWR 330
Course Transferable to CSU
This course offers a marketing approach to selling nonfiction writing. The course surveys consumer, general interest and specialty magazines, including trade journals, company publications, regional magazines and local markets. Activities will include the following: reporting on magazine categories; analysis of a variety of magazine article styles and types; writing and sending articles to the marketplace; individual and class criticism of student manuscripts. Emphasis will be placed on increasing freelance writing publication. The course may be taken twice for credit, with the understanding that many universities and four-year colleges place a nine-unit limit on transfer credit from advanced composition courses (ENGWR 330, 331 and ENGCW 400).

ENGWR 334
Introduction to Technical and Professional Writing 3 Units
Hours: 54 hours LEC
Prerequisite: ENGWR 101 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU
General Education: AA/AS Area II(a)
This course emphasizes principles of reader-centered writing for the workplace, focusing specifically on aspects of technical and professional writing. The course teaches the writing of documents used in industry and business. These documents may include memos, letters, brochures, reports, process analyses, technical descriptions, procedures, proposals, grants, scientific reports, web sites, software documentation, and case studies. The course may include team projects that require collaboration outside the classroom. The course complements communication skills needed for the division of Career and Technical Education. The course is intended to be applicable to AS and AA CTE degrees.

ENGWR 340
Honors College Composition 3 Units
Same As: HONOR 375
Hours: 54 hours LEC
Prerequisite: ENGWR 101 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Advisory: ENGRD 110, or equivalent skills demonstrated through the assessment process.
Enrollment Limitation: Eligibility for the Honors Program.
Course Transferable to CSU; UC
General Education: AA/AS Area II(b); CSU Area A2; IGETC Area 1A
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. (C-ID ENGL 100)
ENGWR 495
Independent Studies in English - Writing  1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
ENGWR 300*  
College Composition  
(See adjacent box for details)

ENGWR 108*  
Accelerated College Writing  
(Corequisite to ENGWR 300)

ENGWR 300  
College Composition  
Minimum requirement for the AA/AS degree and transfer to 4-year colleges & universities; fulfills CSU GE requirement A2; fulfills IGETC Area 1A

ENGWR 341  
Introduction to Technical and Professional Writing  
Minimum requirement for the AA/AS degree and transfer to 4-year colleges & universities; CSU transferable

ENGWR 480/HONOR 375  
Honors College Composition  
Meets the AA/AS graduation competency requirement, if needed; fulfills CSU GE requirement A2; fulfills IGETC Area 1A; meets reading & writing competency

ENGWR 300*  
College Composition  
Minimum requirement for the AA/AS degree and transfer to 4-year colleges & universities; fulfills CSU GE requirement A2; fulfills IGETC Area 1A

ENGWR 108*  
Accelerated College Writing  
(Corequisite to ENGWR 300)

ENGWR 300*  
College Composition  
(See adjacent box for details)

ENGWR 108*  
Accelerated College Writing  
(Corequisite to ENGWR 300)

ENGWR 110  
College Reading and Writing Skills

SUPPORT CLASSES

ENGRD 110  
Comprehension Strategies and Vocabulary Development For College

ENGRD 310  
Critical Reading as Critical Thinking

ENGWR 44  
Basics of Sentence Structure

ENGWR 55  
Fluency and Style in English Writing

ENGLB 70-78  
Writing Center  
Open access laboratory provides assistance to all students in writing, sentence structure, essay development and reading in any subject area.

CREATIVE WRITING & LITERATURE COURSES

Studying English prepares students for a wide range of professions. Consider adding depth to your academic resume with one or more of following classes. See the English webpage for more information. These classes enhance critical thinking and cross-cultural understanding. They also meet General Education requirements, such as CSU GE Breadth and/or IGETC.

Creative Writing Classes
ENGCW: 400, 410, 420, 430, 452, 480

Literature Classes
ENGLT: 303, 310, 311, 320, 321, 330, 335, 336, 340, 341, 343, 345, 360, 402, 488
CRC ENGLISH SEQUENCE—COLLEGE LEVEL: DEGREE APPLICABLE & TRANSFER COURSES

ENGWR 301
College Composition & Literature
Minimum requirement for the AA/AS degree and transfer to 4-year colleges & universities; fulfills CSU GE requirement A.2.; fulfills IGETC Area 1B & 3B

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

ENGRD 310
Critical Reading and Thinking
Meets the AA/AS graduation competency requirement, if needed; fulfills CSU General Education Breadth requirement: A.3. Critical Thinking

ENGRD 310
Critical Reading

ENGWR 108*
Corequisite

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 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 341
Introduction to Technical and Professional Writing
Minimum requirement for the AA/AS degree and transfer to 4-year colleges & universities

ENGWR 480/
HONOR 375
Honors College Composition
Meets the AA/AS graduation competency requirement, if needed; fulfills CSU GE requirement A.2; fulfills IGETC Area 1A; meets reading and writing competency

COMPOSITION

READING

SUMMARY TABLE
ALL DEGREE APPLICABLE ENGLISH COURSES: TRANSFER STATUS

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<td>ENGCW: 452, 495, 480, 499</td>
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NOTE: Many of the English courses in this table also meet a General Education requirement (CSU GE Breadth and/or IETC). Check the course description of each course for more detail.
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.
This course is a Pass/No Pass course. Students will earn .5 units for each 27 hours of lab completed for a maximum of 1.50 units. This course is not a substitute for other ESL courses. Students will earn .5 units for each 27 hours of lab completed for a maximum of 1.50 units. This course is a Pass/No Pass course.

This course develops, expands, and reinforces multiple English language skills at the novice-high level in an independent and/or small group environment. Coursework includes integrated study topics relative to vocabulary and study skills, reading and grammar use, idiomatic language study and application, conversation and listening skills, and assorted integrated software programs. Late registration is allowed as long as space is available and with the permission of the instructor. This course is not a substitute for other ESL courses. Students will earn .5 units for each 27 hours of lab completed for a maximum of 1.50 units. This course is a Pass/No Pass course.

This course focuses on learning academic reading and writing skills at the novice-high level, with an emphasis on vocabulary development, reading comprehension, and the writing process. Students will develop paragraphs with a clear beginning, middle, and end in the context of a multiple paragraph writing assignment. This course is part of the reading and writing sequence which prepares ESL students to take college courses leading to a certificate, degree, and/or transfer.

This is a course to prepare English language learners for success in the American academic experience. This course provides college success strategies, language skills, and support resources in the language appropriate for entry level ESL students.

This course develops, expands, and reinforces multiple English language skills at the intermediate-low level in an independent and/or small group environment. Coursework includes integrated study topics relative to vocabulary and study skills, reading and grammar use, idiomatic language study and application, pronunciation and listening skills, composition and writing, and/or workplace skills. This is an open-entry open-exit course. Students may register until the end of the ninth week of the semester if space allows. This course is not a substitute for other ESL courses. Students will earn .5 units for each 27 hours of lab completed for a maximum of 1.50 units. This course is graded Pass/No Pass.
ESL 47
Intermediate-Low Integrated Reading and Writing 6 Units
Hours: 108 hours LEC
Prerequisite: ESL 37 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.

ESL 47 is an integrated reading and writing course for English language learners at the intermediate level. In preparation for academic writing, students build skills in pre-writing, learn to write strong paragraphs, and practice the basics of essay structure. Students also build academic reading skills and vocabulary. With the information gathered through readings, students begin to use academic content to supplement their ideas in writing. This course is part of the reading and writing sequence, which prepares ESL students to take college courses leading to a certificate, degree, and/or transfer.

ESL 54
Intermediate-Mid Skills Lab 0.5 - 1.5 Units
Hours: 27 - 81 hours LAB
Prerequisite: None.
Advisory: ESL 50, ESLR 50, and ESLW 50; concurrent enrollment in ESL 50, ESLR 50, and/or ESLW 50 is recommended as ESL 54 is designed to supplement the instruction students receive in these courses.

This course develops, expands, and reinforces multiple English language skills at the intermediate-mid level in an independent and/or in small group environment. Coursework includes integrated study topics relative to vocabulary and study skills, reading and grammar use, idiomatic language study and application, pronunciation and listening skills, composition and writing, and workplace skills. This is an open-entry open-exit course. Students must register until the end of the ninth week of the semester if space allows. This course is not a substitute for other ESL courses. Students will earn .5 units for each 27 hours of lab completed for a maximum of 1.50 units. This course is a Pass/No Pass course.

ESL 110
ESL College English Preparation: Intermediate 6 Units
Hours: 108 hours LEC
Prerequisite: ESLR 40 and ESLW 40 with grades of “C” or better, or equivalent skills demonstrated through the assessment process.

ESL 110 is an accelerated course that integrates reading and writing. This course addresses the reading and writing skills English language learners need to succeed in college-level courses. Students focus on refining college-level academic skills in reading and writing with an emphasis on speed, vocabulary development, fluency, use of standard English, and analytical skills. Students will do extensive reading and writing with ever-increasing critical analysis. Students will follow the writing process in essay writing and will move from personal experiences to incorporating academic information. The class is the first semester of a two-semester sequence that moves students to ENGWR 300 and ENGRD 310/312.

ESL 130
ESL College English Preparation: Advanced-Low 6 Units
Hours: 108 hours LEC
Prerequisite: ESL 110 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.

ESL 130 is an accelerated course that integrates reading and writing at the high-intermediate and advanced-low level and prepares English language learners to be successful in college-level courses. Students refine academic reading skills with an emphasis on comprehension of academic texts, reading fluency, annotation, and vocabulary development. Students develop research and synthesizing skills and write a variety of essays based on critical analysis of readings. The course also emphasizes competent sentence variety and mastering the mechanics of English in the context of the essay. This class is the second semester of a two-semester sequence that moves students to ENGWR 300 and ENGRD 310/312.

ESL 299
Experimental Offering in English as a Second Language - Listening .5-4 Units
Hours: 18 hours LEC; 54 hours LAB
Prerequisite: None.

This course integrates the reading and writing skills English language learners need to succeed in college-level courses. Students focus 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. 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.

ESL - GRAMMAR (ESLG)

ESLG 31
Basic English Grammar 3 Units
Hours: 54 hours LEC
Prerequisite: ESLW 20 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.

This course provides English language learners with an introduction to the basics of English grammar including parts of speech, word form, word order, and the fundamental verb tenses necessary for writing.

ESLG 41
Elements of English Sentences 3 Units
Hours: 54 hours LEC
Prerequisite: ESLW 30 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.

This course provides English Language Learners with a review of the basic elements of English sentences including parts of speech, word order, proper use of word form, and the simple and progressive verb tenses. Students will learn to recognize a variety of English sentence patterns in listening, and reading and be able to produce those patterns in their own speaking and writing.

ESLG 51
Grammar for Intermediate ESL Writers 3 Units
Hours: 54 hours LEC
Prerequisite: ESLG 41 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.

This course reviews the form and use of the simple and continuous tenses in the present, past and future as well as the present perfect and present perfect continuous. It also provides instruction in other intermediate-level grammar topics such as gerunds and infinitives, articles, and nouns. It is intended for students who need additional grammar instruction to support their development writers in English.
ESLG 110
Grammar for Intermediate-High ESL Students 3 Units
Hours: 54 hours LEC
Prerequisite: ESLG 51 and ESLW 40 with grades of “C” or better, or equivalent skills demonstrated through the assessment process.
This course is intended for English language learners who need to develop an understanding of English grammar to study at the college level. It continues to build competency in the English verb tense system and provides instruction in more advanced clause structures, such as noun clauses, adverb clauses, and conditionals. Students will apply these concepts in writing assignments.

ESLG 120
Advanced ESL Grammar 3 Units
Hours: 54 hours LEC
Prerequisite: ESLG 110 and ESLW 50 with grades of “C” or better, or equivalent skills demonstrated through the assessment process.
This course focuses on developing control of the form and meaning of important grammar structures, especially those used in writing. Students also learn advanced-level grammar topics and develop independent editing skills. Students write extensively and apply strategies to correct both local and global grammatical errors. The course is intended for students who need to develop strong control of grammar to support their educational and career goals.

ESLG 310
Intermediate-High Grammar 4 Units
Hours: 72 hours LEC
Prerequisite: ESLG 57 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU
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
Hours: 72 hours LEC
Prerequisite: Eligibility is determined by the assessment process, or completion of ESLG 310 with a grade of “C” or better.
Course Transferable to CSU
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
Hours: 72 hours LEC
Prerequisite: None.
This course will provide an introduction to academic listening and speaking for novice level English language learners. Instruction focuses on basic listening and speaking strategies for a variety of situations, including listening for main ideas and utilizing learned phrases for class discussion. English sounds and intonation patterns are introduced.

ESLL 30
Novice-High Listening and Speaking 4 Units
Hours: 72 hours LEC
Prerequisite: Completion of ESLL 20 with a grade of “C” or better; or placement through the assessment process.
This course will provide further instruction in academic listening and speaking for English language learners at the novice-high level. Instruction focuses on basic listening and speaking strategies for a variety of situations, including listening for main ideas and details and utilizing learned phrases for effective class discussion and presentations. Students continue to work on English sounds, stress patterns, and intonation patterns.

ESLL 31
Listening and Speaking for College Readiness 3 Units
Hours: 54 hours LEC
Prerequisite: ESLL 20 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
English language learners at the novice-high level develop the listening and speaking strategies necessary for college and workforce readiness. Basic listening strategies include listening for main ideas and supporting details in a variety of situations. Basic speaking strategies include the utilization of appropriate learned vocabulary and continued development of the production of English sounds, stress patterns, and intonation patterns. Students will also develop effective small group and class discussion strategies. This course is part of the ESL listening sequence, which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.

ESLL 40
Intermediate-Low Listening and Speaking 4 Units
Hours: 72 hours LEC
Prerequisite: Completion of ESLL 30 with a grade of “C” or better; or placement through the assessment process.
ESLL 40 is a course in academic listening and speaking for English language learners at the intermediate-low level. Instruction focuses on academic listening and speaking strategies for a variety of college classroom situations, including note-taking and utilizing a range of learned phrases for effective class discussion and presentations. Students continue to work on English sounds, stress, and intonation patterns to improve their comprehensibility and fluency. This course is part of the ESL listening sequence, which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.

ESLL 41
Listening, Speaking and Presentation Skills for College 3 Units
Hours: 54 hours LEC
Prerequisite: None
ESLL 41 is a course in college listening and speaking for English language learners at the intermediate-low level. Students improve their listening by learning to take notes while watching short lectures, and they develop their speaking skills through class discussions and short presentations. This course is part of the ESL listening sequence, which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.
ESLL 50  Intermediate-Mid Listening and Speaking  4 Units  
Hours: 72 hours LEC  
Prerequisite: Completion of ESLL 40 with a grade of “C” or better; or placement through the assessment process.

ESLL 50 is an academic listening and speaking course at intermediate-mid level designed for English language learners who wish to further the development of their communication skills. 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. This course is part of the ESL listening sequence, which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.

ESLL 111  Academic Listening, Speaking, and Presentation Skills  3 Units  
Hours: 54 hours LEC  
Prerequisite: ESLL 40 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.

This course is intended for English language learners who intend to study at the college level. It builds students’ ability to listen and speak in the college classroom. Students improve their listening skills through academic lectures and develop strong classroom speaking skills through various types of presentations.

ESLL 114  Intermediate Listening and Speaking for Allied Health Careers  3 Units  
Hours: 54 hours LEC  
Prerequisite: Completion of ESLL 40 with a grade of “C” or better; or placement through the assessment process.

Advisory: ESLR 40 and ESLW 40 with grades of “C” or better

ESLL 114 is a listening and speaking course at intermediate level designed for English language learners who wish to enter the allied health field. This course is designed to introduce students to the listening and speaking skills needed in both the academic and work environment. Students will continue to develop pronunciation skills and complex pronunciation strategies in the context of the allied health field. Students will expand their abilities to communicate in both familiar and unfamiliar allied health situations as they continue to refine their oral communication skills. This course is part of the ESL listening sequence, which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.

ESLL 121  Academic Listening, Note-taking, and Discussion  3 Units  
Hours: 54 hours LEC  
Prerequisite: ESLL 111 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.

Advisory: ESL 310

This course prepares English language learners for the level of listening, note-taking, and discussion necessary to be successful in college classes. Students develop academic note-taking skills by listening to real academic lectures and build speaking skills by responding to lectures in class discussions. This course helps prepare ESL students for the rigor of general education courses in the sciences, social sciences, humanities, and other disciplines.

ESLL 124  Advanced Listening and Speaking for Allied Health Careers  3 Units  
Hours: 54 hours LEC  
Prerequisite: ESLL 114, ESLR 114, and ESLW 114 with grades of “C” or better

Corequisite: ESLR 124 and ESLW 124

ESLL 124 is a listening and speaking course at the advanced level designed for English language learners who wish to enter the allied health field. In this course students will refine the listening and speaking skills necessary for both the academic and work environment. Students will expand their abilities to communicate in both familiar and unfamiliar allied health situations as they continue to refine their oral communication skills. In addition, students will expand their abilities to participate in in-depth discussions and lectures necessary for content courses and work related situations.

ESLL 299  Experimental Offering in English as a Second Language - Listening .5-4 Units  
Prerequisite: None

Hours: 18 hours LEC; 54 hours LAB

ESLL 310  Intermediate-High Listening and Speaking  4 Units  
Hours: 72 hours LEC  
Prerequisite: Completion of ESLL 50 with a grade of “C” or better; or placement through the assessment process.

Course Transferable to CSU

ESLL 310 is an academic listening and speaking course at intermediate-high level designed for English language learners who wish to further the development of their communication skills. This is a course to further develop listening and speaking for academic purposes, including comprehension of lectures, note-taking, presentations, and classroom discussion. Further work on pronunciation is included with emphasis on understanding and producing stress, rhythm, and intonation patterns to communicate effectively. This course is part of the ESL listening sequence, which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.

ESLL 320  Advanced-Low Listening and Speaking  4 Units  
Hours: 72 hours LEC; 54 hours LAB  
Prerequisite: Completion of ESLL 310 with a grade of “C” or better; or placement through the assessment process.

Course Transferable to CSU

This course is a course with intensive practice in listening and active participation strategies that are appropriate for American college courses. Students will listen to extended lectures from various subject areas, refine note-taking skills, be able to participate in in-depth discussions, and give oral presentations. Students will continue to improve pronunciation skills.
ESLP 41
The Basics of English Pronunciation
3 Units
Hours: 54 hours LEC
Prerequisite: ESLP 30 with a grade of “C” or better
This course introduces the phonetic alphabet and focuses on the identification and production of the sounds of English. Students use basic pronunciation rules to begin to control pronunciation of words and sentences and add expression to their speech.

ESLP 50
Intermediate-Mid Pronunciation
4 Units
Hours: 72 hours LEC
Prerequisite: Completion of ESL 40 with a grade of “C” or better, or the equivalent skills demonstrated through the assessment process.
ESLP 50 is an English pronunciation course at the intermediate-mid level for English language learners. 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. This course is part of the ESL pronunciation sequence, which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.

ESLP 51
Building English Fluency and Comprehensibility
3 Units
Hours: 54 hours LEC
Prerequisite: ESLP 41 with a grade of “C” or better
This course builds on the skills learned in ESLP 41 while adding increased focus on sentence stress, rhythm, and intonation. Students use pronunciation rules to increase their ability to control pronunciation in a variety of situations and to make their speech more comprehensible and engaging.

ESLP 310
Intermediate-High Pronunciation
4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: ESLP 50 and ESLW 50 with grades of “C” or better
Course Transferable to CSU
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 dialogues, skits, and brief other oral presentations.

ESLP 320
Advanced-Low Pronunciation
4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: ESLP 310 and ESLW 310 with grades of “C” or better
Course Transferable to CSU
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 20
Novice Reading
4 Units
Hours: 72 hours LEC
Prerequisite: None.
ESLR 20 is a novice reading course for English language learners. This course is an introduction to reading in English which focuses on an emerging ability to read words, phrases and sentences in the context of a paragraph or short reading. Students will learn word forms, spelling rules, phonetics and basic grammar in the context of reading passages. They will work on vocabulary building, basic comprehension skills and reading speed. This course is part of the ESL reading sequence which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.

ESLR 30
Novice-High Reading
4 Units
Hours: 72 hours LEC
Prerequisite: Completion of ESLR 20 with a grade of “C” or better; or placement through the assessment process.
ESLR 30 is a novice-high reading course for English language learners. This course is a further introduction to reading in English which expands on the concepts learned in ESLR 20. Students focus on an emerging ability to utilize basic reading comprehension strategies. Students will learn to use word form and grammatical structure to determine meaning. They will continue to develop vocabulary building skills and increase reading speed. This course is part of the ESL reading sequence which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.

ESLR 40
Intermediate-Low Reading
4 Units
Hours: 72 hours LEC
Prerequisite: Completion of ESLR 30 with a grade of “C” or better; or placement through the assessment process.
ESLR 40 is an intermediate-low level reading course for English language learners. This course focuses on developing reading skills with an emphasis on building vocabulary, literal comprehension, and fluency. Students will participate in class discussions and write about readings. This course is part of the ESL reading sequence which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.
ESLR 50
Intermediate-Mid Reading  
4 Units
Hours: 72 hours LEC
Prerequisite: Completion of ESLR 40 with a grade of “C” or better; or placement through the assessment process.

ESLR 50 is a reading course for English language learners at the intermediate-mid level. This course focuses on the further development of academic reading skills, with an emphasis on vocabulary development, literal comprehension, and dictionary skills. Students will continue to develop critical thinking skills to understand, analyze, discuss, and write responses to ideas expressed in adapted academic readings. This course is part of the ESL reading sequence, which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.

ESLR 51
Building Vocabulary Skills  
2 Units
Hours: 36 hours LEC
Prerequisite: ESLR 40 and ESLW 30 with grades of “C” or better, or equivalent skills demonstrated through the assessment process.

This course introduces English language learners to vocabulary building skills. The course teaches parts of speech, vocabulary study strategies, word attack skills, dictionary skills, and level-appropriate academic vocabulary.

ESLR 111
Academic Vocabulary  
2 Units
Hours: 36 hours LEC
Prerequisite: ESLR 50 and 51 with grades of “C” or better, or equivalent skills demonstrated through the assessment process.

This course is intended to prepare English language learners for the sophisticated vocabulary needed for higher-level study or work. Students will engage with the Academic Word List while continuing to develop vocabulary building skills. The course teaches more complex vocabulary study strategies, word attack skills, and academic vocabulary from the Academic Word List.

ESLR 114
Intermediate Reading for Allied Health Careers  
3 Units
Hours: 54 hours LEC
Prerequisite: ESLR 40 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.

Advisory: ESLL 40 and ESLW 40 with grades of “C” or better

ESLR 114 is a reading skills course at the intermediate level designed for English language learners who wish to enter the allied health field. In this course, students build on the reading and vocabulary skills necessary for both the academic and work environment. This course focuses on the further development of academic reading skills, with an emphasis on vocabulary development, literal comprehension, and dictionary skills. Students will continue to develop critical thinking skills to understand, analyze, discuss, and write responses to ideas expressed in readings related to the field of allied health.

ESLR 124
Advanced Reading and Vocabulary for Allied Health Careers  
3 Units
Hours: 54 hours LEC
Prerequisite: ESLL 114, ESLR 114, and ESLW 114 with grades of “C” or better
Corequisite: ESLW 124

ESLR 124 is a reading and vocabulary development course at the advanced level designed for English language learners who wish to enter the allied health field. In this course students will refine their academic reading skills with a focus on comprehension of academic text, reading fluency, and annotation in disciplines related to allied health. Students will also develop vocabulary building strategies necessary for allied health related disciplines. In addition, students will use their reading and writing skills to provide critical analysis of materials read. Students who complete this course will be prepared for the reading demands of both the academic and work environment in allied health related fields.

ESLR 310
Intermediate-High Reading  
4 Units
Hours: 72 hours LEC
Prerequisite: Completion of ESLR 50 with a grade of “C” or better; or placement through the assessment process.

Course Transferable to CSU

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
Hours: 72 hours LEC
Prerequisite: Completion of ESLR 310 with a grade of “C” or better; or placement through the assessment process.

Course Transferable to CSU

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

ESL - WRITING (ESLW)

ESLW 20
Novice Writing  
4 Units
Hours: 72 hours LEC
Prerequisite: None.

ESLW 20 is a writing course for English language learners at the novice level. This course is an introduction to English writing at the sentence and paragraph level. Students will write about familiar topics focusing on the structure of English including word form, parts of speech, verb tense and word order. Students will learn to construct affirmative and negative statements, and yes/no and information questions in simple present, simple past, present continuous and simple future tenses. This course is part of the ESL writing sequence which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.
ESLW 30
Novice-High Writing 4 Units
Hours: 72 hours LEC
Prerequisite: Completion of ESLW 20 with a grade of “C” or better; or placement through the assessment process.
ESLW 30 is a course for English language learners at the novice-high level. In this course students will expand control of English vocabulary, word forms, parts of speech, verb tenses, and sentence structures. Students will build an understanding of the use of word form, parts of speech, verb tense, and English sentence structure. This course is part of the ESL writing sequence which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.

ESLW 40
Intermediate-Low Writing 4 Units
Hours: 72 hours LEC
Prerequisite: Completion of ESLW 30 with a grade of “C” or better; or placement through the assessment process.
ESLW 40 is a writing course for English language learners at the intermediate-low level. This course builds skills in writing at the paragraph level. Students will build an understanding of the writing process, essay structure, and paragraph structures. Students will continue to develop mastery of verb tenses, subject verb agreement, singular and plural nouns, and punctuation within sentences. This course is part of the ESL writing sequence which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.

ESLW 50
Intermediate-Mid Writing 4 Units
Hours: 72 hours LEC
Prerequisite: Completion of ESLW 40 with a grade of “C” or better; or placement through the assessment process.
ESLW 50 is a writing course for English language learners at the intermediate-mid level. This course introduces essay writing. Students will build an understanding of the writing process, essay structure, and types of writing assignments. Students will build confidence in using correct sentence structure, grammar, and editing skills. This course is part of the ESL writing sequence which is designed to prepare English language learners to take college courses leading to a certificate, degree, and/or transfer.

ESLW 114
Intermediate Writing for Allied Health Careers 3 Units
Hours: 54 hours LEC
Prerequisite: ESLW 40 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
ESLW 114 is a writing course at the intermediate level designed for English language learners who wish to enter the allied health field. In this course students will refine the writing skills needed in both the academic and work environment. Students will expand their understanding of the writing process and types of writing necessary in the allied health field. Students will build fluency and accuracy with the English language including grammar, sentence structure, and style.

ESLW 124
Advanced-Low Writing for Allied Health Careers 3 Units
Hours: 54 hours LEC
Prerequisite: ESLL 114, ESLR 114, and ESLW 114 with grades of “C” or better
Corequisite: ESLW 124 and ESLW 125
ESLW 124 is a writing course at the advanced level designed for English language learners who wish to enter the allied health field. In this course students will refine the writing skills needed in both the academic and work environment. Students will expand their understanding of the writing process and types of writing necessary in the allied health field. Students will build fluency and accuracy with the English language including grammar, sentence structure, and style.

ESLW 310
Intermediate-High Writing 4 Units
Hours: 72 hours LEC
Prerequisite: ESLW 50 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC (ESL 325, ESLW 310, ESLW 320, or ESLW 340: any or all of these courses combined: maximum credit, 8 units)
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
Hours: 72 hours LEC
Prerequisite: ESLW 310 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC (ESL 325, ESLW 310, ESLW 320, or ESLW 340: any or all of these courses combined: maximum credit, 8 units)
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
Hours: 72 hours LEC
Prerequisite: ESLW 320 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC (ESL 325, ESLW 310, ESLW 320, or ESLW 340: any or all of these courses combined: maximum credit, 8 units)
General Education: AA/AS Area II(a); CSU Area A2
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
Accelerated Pathways

Accelerated Pathway for Degree and/or Transfer*

Degree/Transfer Requirement

Intermediate

ESLL 111
Intermediate Listening & Speaking

ESL 110
Intermediate Reading & Writing

ESLG 110 or ESLG 120 Advanced-Low Grammar

ESLG 51 or ESLG 110 Intermediate Grammar

Advanced Low

ESLL 121
Advanced-Low Listening and Speaking

ESL 130
Advanced-Low Reading & Writing

ESLG 40 or ESLG 110 Intermediate Grammar

*Students who successfully complete ESLL 40, ESLR 40, and ESLW 40 or place in ESL 50, ESLG 51, ESLR 50, and ESLW 50 are eligible for Accelerated Pathway for Degree and/or Transfer. Students must enroll in all courses in the program.

Accelerated Pathway for CTE/Allied Health Programs†

Degree/Transfer Requirement

Intermediate

ESLL 114
Intermediate Listening & Speaking

ESLR 114 Intermediate-Low Reading

ESLW 114 Intermediate-Low Writing

Advanced Low

ESLL 124
Advanced-Low Listening and Speaking

ESLR 124 Advanced-Low Reading

ESLW 124 Advanced-Low Writing

†Students who successfully complete ESLL 40, ESLR 40, and ESLW 40 or place in ESL 50, ESLG 51, ESLR 50, and ESLW 50 are eligible for Accelerated Pathway for CTE/Allied Health Programs. Students must enroll in all courses in the program.
DEGREE
A.A. — Social Science

Program Description
Ethnic Studies is an interdisciplinary and diverse field that gives voice to historically marginalized peoples and their perspectives by challenging systems of injustice and valuing diversity. This program seeks to educate students on progressive social change, reflect on the dynamics of power and knowledge, and promote multiple approaches to social justice issues while encouraging students to be informed and active citizens. Ethnic Studies allows students a particular focus on marginalized and disadvantaged populations while also de-centering the dominant cultural, political, and social ideals that have shaped western societies.

Career Opportunities
Teaching
Law
Journalism
Marketing
Community and Housing Development
Radio and Television
Health and Medicine
Community and Union Organizing
Social Work
Positions in Federal, State, and Local Governments

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.

DEGREE REQUIREMENTS
Twenty-one (21) units must be completed in at least three different subject areas listed below:

Program subject areas:
Anthropology, Ethnic Studies, Economics, Geography, 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: 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.
ETHNIC STUDIES (ETHNS)

ETHNS 300
Introduction to Ethnic Studies 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Completion of ENGWR 101 with a grade of "C" or better, or completion of ESLW 340 with a grade of "C" or better
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D; IGETC Area 4
This interdisciplinary course examines the social, political, economic, and cultural experience of racial and ethnic minority groups in the United States using concepts, theories, and terminology from distinct disciplines within the social sciences. As an ethnic studies course, it has a culturally relativistic approach. Specifically, this course examines and redefines the lives of racial and ethnic minority groups through their own experiences: from the inside looking out at the world. This course was formerly SOCSC 300.

ETHNS 320
The African American Experience 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Completion of ENGWR 101 with a grade of "C" or better, or completion of ESLW 340 with a grade of "C" or better
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D; IGETC Area 4
This interdisciplinary course examines the social, political, economic, and cultural experience of racial and ethnic minority groups in the United States using concepts, theories, and terminology from distinct disciplines within the social sciences. As an ethnic studies course, it has a culturally relativistic approach. Specifically, this course examines and redefines the lives of African Americans through their own experiences: from the inside looking out at the world. This course was formerly SOCSC 320.

ETHNS 330
The Asian American Experience in America 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Completion of ENGWR 101 with a grade of "C" or better, or completion of ESLW 340 with a grade of "C" or better
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D; IGETC Area 4
This interdisciplinary course examines the social, political, economic, and cultural experience of Asian Americans in the United States. As an Ethnic Studies course, it has a culturally relativistic approach. Specifically, this course examines and redefines the lives of Asian Americans through their own experiences: from the inside looking out at the world. This course was formerly SOCSC 325.

ETHNS 340
Chicanos/Mexican Americans in the U.S. 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Completion of ENGWR 101 with a grade of "C" or better, or completion of ESLW 340 with a grade of "C" or better
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D; IGETC Area 4
This is an interdisciplinary course in which terms, concepts, and theories from distinct disciplines within the social sciences will be utilized to examine the social, political, economic, and cultural experience of Mexican Americans in the United States. As an Ethnic Studies course, it has a culturally relativistic approach. Specifically, this course examines and redefines the lives of Mexican Americans through their own experiences: from the inside looking out at the world. This course was formerly SOCSC 330.

ETHNS 344
The Latino Experience in America 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Completion of ENGWR 101 or ESLW340 with a grade of "C" or better
Course Transferable to CSU; UC
General Education: CSU Area D; IGETC Area 4
This interdisciplinary course examines the social, political, economic, and cultural experience of racial and ethnic minority groups in the United States using concepts, theories, and terminology from distinct disciplines within the social sciences. As an ethnic studies course, it has a culturally relativistic approach. Specifically, this course redefines the lives of Latino American subgroups through their own experiences: from the inside looking out at the world.
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  Education
Instructional Assistant  Counseling
Child Psychology  Social Work

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

FAMILY AND CONSUMER SCIENCE (FCS)

FCS 324
Human Development: A Life Span  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC (FCS 312, 324 and PSYC 372 combined: maximum transfer credit is two courses)
General Education: AA/AS Area III(b); CSU Area E1
This course will provide an overview of the physical, cognitive, social, and emotional development from conception through the life span. The emphasis will be on the practical application of developmental principles. The course is designed as a foundation course of careers in educational, social, psychological, and medical fields. An optional field study unit may be offered to provide opportunities for observation and experience with various age groups.

FCS 495
Independent Studies in Family and Consumer Science  1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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.

FCS 499
Experimental Offering in Family and Consumer Science  .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
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  Lighting Director
Cinemagapher  Producer/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

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, Adobe Photoshop, Adobe Illustrator, and Adobe After Effects.
• Internship opportunities working with local independent filmmakers, post-production facilities and at local television stations.
• Industry guest opportunities provide real world examples of how to be successful in the film 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

ASSOCIATE DEGREE
A.A. in Film / Digital Cinema Production
CODE #1969

DEGREE REQUIREMENTS .................................................. UNITS
RTVF 305  Film History (3) .............................................. 3
or FMS 305  Film History (3)
RTVF 306  Introduction to Media Aesthetics and Cinematic Arts ............................................. 3
RTVF 319  Beginning Audio Production ................................ 3
RTVF 330  Beginning Single Camera Production .................... 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 ............................ 3
PHOTO 301  Beginning Photography (3) .............................. 3
or PHOTO 302  Beginning Digital Photography (3)
A minimum of 6 units from the following:
RTVF 304  Introduction to Multimedia (3)
RTVF 354  Audio Editing for Film & Video Post Production (3)
RTVF 365  Intermediate Film & Video Editing (3)
RTVF 368  Scriptwriting for Film, Video & Multimedia (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: ........................................................................ 30

Associate in Arts Degree
The Film / Digital Cinema Production Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus 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

ASSOCIATE DEGREE
A.A. in Film and Media Studies
CODE #1551

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.

DEGREE REQUIREMENTS .................................................................UNITS
FMS  300  Introduction to Film Studies ......................................3
FMS  305  Film History ...............................................................3
FMS  320  Film Genre .................................................................3
JOUR 310  Mass Media and Society (3) .....................................3
or RTVF 300  Mass Media and Society (3)
RTVF  330  Beginning Single Camera Production ....................3
A minimum of 3 units from the following:
FMS  310  Basic Screenwriting (3)
RTVF  362  Digital Non-Linear Video Editing (3)
Total Units: .................................................................................... 18

Suggested Electives:
FMS  488  Honors Seminar: Introduction to Critical Theory
RTVF  319  Digital Audio Production
TA  356  Acting for the Camera I

Associate Degree
The Film and Media Studies Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
FILM AND MEDIA STUDIES (FMS)

FMS 300
Introduction to Film Studies 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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.

FMS 305
Film History 3 Units
Same As: RTVF 305
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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.

FMS 310
Basic Screenwriting 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENSWR 300
Course Transferable to CSU
General Education: AA/AS Area I
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.

FMS 320
Film Genre 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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.

FMS 488
Honors Seminar: Introduction to Critical Theory 3 Units
Same As: HONOR 350
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
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.

FMS 489
Honors Seminar: The Films of Alfred Hitchcock 3 Units
Same As: HONOR 352
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I
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.

FMS 495
Independent Studies in Film and Media Studies 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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.

FMS 499
Experimental Offering in Film and Media Studies .5-4 Units
Prerequisite: None.
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.S. — Fire Technology

CERTIFICATE OF ACHIEVEMENT
Firefighter Suppression Specialist

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 complete and successfully apply for fire service positions. The curriculum serves as an inservice program as well as a pre-employment program for students seeking employment or advancement in the profession of urban fire fighting and fire suppression.

Career Opportunities
Firefighter, Fire Inspector, Investigator, Supervisor, Manager, Plans Examiner, Building Inspector, Fire Prevention Specialist/Officer, Building Inspector, Public Education Specialist/Officer

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

ASSOCIATE DEGREE
A.S. in Fire Technology
CODE #1127

DEGREE REQUIREMENTS ................................................. 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
FT 305 Firefighter Safety and Survival ........................3
FT 320 Hazardous Materials .......................................3
EMT 100 Emergency Medical Technician ..................7.5
FT 498 Work Experience in Fire Technology (1 - 4) .....1 - 4*

A minimum of 9 units from the following:
FT 110 Fire Apparatus (3)
FT 130 Fire Company Organization and Management (3)
FT 170 Fire Investigation (3)
FT 180 Rescue Practices (3)
FT 190 Fire Tactics and Strategy (3)
FT 210 Firefighter Academy for the Internship Program (7.5)

Total Units: ................................................................ 38.5 - 41.5

1 A current California EMT certificate or Paramedic license will be accepted as satisfactory completion of the EMT 100 requirement.
2 The student must have 1-4 units of work experience in Firefighting or Emergency Medical Services to receive a degree.

Associate in Science Degree
The Fire Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
A.S. in Fire Prevention
CODE #2025

The fire service is one of the most dynamic employers in the country. This CRC program is designed to provide students with updated skills and knowledge necessary to complete and successfully apply for fire service positions. The curriculum serves as an in-service program as well as a pre-employment program for students seeking employment or advancement in the profession of fire prevention.

DEGREE REQUIREMENTS ......................................................... 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
FT 498 Work Experience in Fire Technology .........................1 - 4

A minimum of 9 units from the following: 1
BIT 100 Introduction to the International Building Code (3)
BIT 102 Plan Reading and Non-Structural Plan Review (3)
BIT 104 International Building Code - Fire & Life Safety (3)
BIT 130 Introduction to Inspection of Wood Frame Construction (3)

Total Units: ........................................................................... 25 - 28

1 A current California EMT certificate or Paramedic license will be accepted as satisfactory completion of the EMT 100 requirement.

Associate in Science Degree

The Fire Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT

Firefighter Suppression Specialist Certificate
CODE #1127

The fire service is one of the most dynamic employers in the country. This CRC program is designed to provide students with updated skills and knowledge necessary to complete and successfully apply for fire service positions. The purpose of the Fire Suppression Specialist Certificate is to recognize, through certification, qualified individuals who are dedicated to curtailing fire loss, both physical and financial, and who have acquired a level of professionalism through applied work experiences and related education opportunities, and through successful completion of a certification examination.

The curriculum serves as an in-service program as well as a pre-employment program for students seeking employment or advancement in the profession of urban fire fighting, fire prevention, and public and private fire suppression.

CERTIFICATE REQUIREMENTS ............................................. UNITS
FT 300 Fire Protection Organization ........................................3
EMT 100 Emergency Medical Technician ..............................3
FT 210 Firefighter Academy for the Internship Program.............7.5
FT 320 Hazardous Materials ...............................................3

A minimum of 16 units from the following: 2
FT 498 Work Experience in Fire Technology (1 - 4)

Total Units: ........................................................................... 37

1 A current California EMT certificate or Paramedic license will be accepted as satisfactory completion of the EMT 100 requirement
2 Students should take 4 units of Fire Technology Work Experience (FT 498) each semester for 4 semesters, earning a total of 16 units of work experience through FT 498.

FIRE TECHNOLOGY (FT)

FT 110 Fire Apparatus ....................................................... 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: FT 130; FT 300; or employment as a firefighter

This course covers various aspects of fire apparatus. Topics include design, typing, specifications, construction, performance capabilities, and maintenance. This course includes principles and techniques for maintaining and operating fire service pumping and other mobile apparatus. The course includes fire service equipment and apparatus troubleshooting; principles and techniques of preventive maintenance; construction and operation of fire service pumps and pump accessories; basic highway operating techniques for fire apparatus; fire apparatus specifications and testing procedures. Also included are warning devices and the utilization of apparatus in fire service emergencies. 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
Hours: 54 hours LEC
Prerequisite: Company Officer is the preferred prerequisite, however, the minimum qualifications of Firefighter II in accordance with the State of California Office of the Fire Marshal may be accepted at the discretion of the instructor as this course meets Company Officer 2A instruction.
Advisory: FT 300 or employment as a firefighter

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 170 Fire Investigation ...................................................... 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: FT 300 or employment as a firefighter

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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: FT 300 or employment as a firefighter

This course focuses on the identification and management of rescue situations, such as proper utilization and awareness of equipment, tools, and techniques to handle various rescue situations. Topics include vehicle extrication, water rescue, vertical rescue, building collapse, radiation hazards, hazardous materials rescue, fire situations including rapid intervention awareness, and other emergency situations.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Hours:</th>
<th>Prerequisite:</th>
<th>Advisory:</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 190</td>
<td>Fire Tactics and Strategy</td>
<td>3 Units</td>
<td>54 hours LEC</td>
<td>FT 300 with a grade of “C” or better</td>
<td>FT 301, 302, 303, and 304; or employment as a firefighter.</td>
</tr>
<tr>
<td>FT 210</td>
<td>Firefighter Academy for the Internship Program</td>
<td>7.5 Units</td>
<td>90 hours LEC; 135 hours LAB</td>
<td>FT 300 with a grade of “C” or better; Current EMT Certification in the State of California; BLS Provider or BLS for the Healthcare Provider from American Heart Association; or current American Red Cross CPR for Professional Rescuer; CPR must stay current for the entire internship. The student must meet other Academy requirements including but not limited to: drug screening, background check, purchasing firefighting personal protective equipment, college GPA of 2.5, physical, physical ability test, respirator fit testing, and a valid driver’s license; current Candidate Physical Ability Test (CPAT) card. The students applying for FT 210 must pass a fire interview board to be accepted into the course.</td>
<td>Corequisite: FT 498</td>
</tr>
<tr>
<td>FT 295</td>
<td>Independent Studies in Fire Technology</td>
<td>1 - 3 Units</td>
<td>54 - 162 hours LAB</td>
<td>FT 300 with a grade of “C” or better; Current EMT Certification; BLS Provider or BLS for the Healthcare Provider from American Heart Association; or current American Red Cross CPR for Professional Rescuer.</td>
<td>FT 300 with a grade of “C” or better</td>
</tr>
<tr>
<td>FT 299</td>
<td>Experimental Offering in Fire Technology</td>
<td>.5-4 Units</td>
<td>18 hours LEC; 54 hours LAB</td>
<td>FT 300 with a grade of “C” or better</td>
<td>FT 300 with a grade of “C” or better</td>
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<tr>
<td>FT 300</td>
<td>Fire Protection Organization</td>
<td>3 Units</td>
<td>54 hours LEC</td>
<td>None.</td>
<td>None.</td>
</tr>
<tr>
<td>FT 301</td>
<td>Fire Protection Technology</td>
<td>3 Units</td>
<td>54 hours LEC</td>
<td>FT 300 with a grade of “C” or better</td>
<td>FT 300 with a grade of “C” or better</td>
</tr>
<tr>
<td>FT 302</td>
<td>Fire Protection Equipment and Systems</td>
<td>3 Units</td>
<td>54 hours LEC</td>
<td>FT 300 with a grade of “C” or better</td>
<td>FT 300 with a grade of “C” or better</td>
</tr>
<tr>
<td>FT 303</td>
<td>Building Construction for Fire Protection</td>
<td>3 Units</td>
<td>54 hours LEC</td>
<td>FT 300 with a grade of “C” or better</td>
<td>FT 300 with a grade of “C” or better</td>
</tr>
</tbody>
</table>

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 304  Fire Behavior and Combustion  3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: FT 300 with a grade of “C” or better  
Course Transferable to CSU  
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. This course meets the National Fire Academy, Fire and Emergency Services Higher Education (FESHE) curriculum model for Fire Behavior and Combustion.

FT 305  Firefighter Safety and Survival  3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: FT 300  
Course Transferable to CSU  
The course introduces the principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral changes throughout the emergency services profession. Emphasis is placed on occupational health and safety of firefighters as well as their personal and organizational accountability. Topics include safety, risk management, medical and fitness standards, industry standards relating to vehicle operation and road scene safety as well as firefighter fatality case studies and analysis. The course emphasizes best safety practices before, during, and after the emergency incident. This course meets the National Fire Academy, Fire and Emergency Services Higher Education (FESHE) curriculum model for Principles of Fire and Emergency Services Safety and Survival.

FT 320  Hazardous Materials  3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: FT 300, 301, 302, 303, and 304  
Course Transferable to CSU  
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  
Hours: 54 - 162 hours LAB  
Prerequisite: None.  
Course Transferable to CSU  
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  
Hours: 60 - 300 hours LAB  
Prerequisite: None.  
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  
General Education: AA/AS Area III(b)  
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
Field Data Mapping and Geographic Information Systems (GIS)
Sustainability
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, urban and regional planning, global trade, social problems (e.g., poverty, ethnic conflict), and many more.

The CRC Geography program offers courses that satisfy lower division General Education requirements in both the physical and social sciences. In addition, the program offers three associate's degrees: an A.A.-T degree in Geography, an A.S. degree in Geography and an A.S. degree in Environmental Studies and Sustainability. All of these degrees provide students with a solid foundation in these disciplines and prepare students to complete upper-division coursework leading to the baccalaureate degree. Students may also earn two certificates: one in Geographic Information Systems (GIS) and/or one in Sustainability. Students planning to transfer to a four-year school with a major in Geography or Environmental Studies should consult the lower division requirements at the university they plan to attend.

Career Opportunities
Natural Resource Management
Environmental Scientist/Analyst
Urban and Regional Planning
Education (K-12 through University)
Climatologist
Transportation Specialist
International Business
Land Surveyor
Remote Sensing Specialist
GIS Analyst/Program Director
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, Mt. Lassen, The Eastern Sierra Nevada 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

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 Point Reyes, Yosemite, the Eastern Sierra, and other locations. 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.
A.S. in General Science

Please see page 373 for more information

A.A.-T. in Geography

CODE #1985

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 in space, how people use and perceive space, and how people create and sustain the places that make up Earth’s surface. 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 human and physical geographers have skills in cartography and Geographic Information Systems (GIS).

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 global warming, desertification, deforestation, loss of biodiversity, groundwater pollution, flooding, and more.

The Associate in Arts in Geography for Transfer Degree (AA-T) is designed to provide a seamless transfer pathway for students interested in pursuing a Geography degree in the California State University (CSU) system. The required and elective coursework surveys a broad spectrum of physical geography, human geography, geospatial technologies (e.g., GIS, the Global Positioning System, remote sensing), and related disciplines. The degree is comprised of lower division coursework typically required by CSU institutions. Students must complete a total of 60 transferable semester units with a minimum 2.0 GPA, to include either the California State University General Education Breadth pattern or the Intersegmental General Education Transfer Curriculum; 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.

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.

DEGREE REQUIREMENTS ............................................. 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

A.A.-T. in Geography continued

Elective List A:
A minimum of 6 units from the following:
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 Systems Applications (3)
GEOG 391 Field Studies in Geography: Mountain Landscapes (1 - 4)
GEOG 392 Field Studies in Geography: Coastal Landscapes (1 - 4)
GEOG 393 Field Studies in Geography: Arid Landscapes (1 - 4)
GEOG 394 Field Studies in Geography: Volcanic Landscapes (1 - 4)

Elective List B:
A minimum of 6 units from the following:
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)
or PSYC 330 Introductory Statistics for the Behavioral Sciences (3)
or ECON 310 Economic Statistics (3)

Total Units: ................................................................................................. 19

* Students may also substitute courses from Elective List A not already counted toward the degree.

Associate in Arts for Transfer Degree

The Associate in Arts in Geography for Transfer (AA-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

A.S. in Geography

CODE #1536

DEGREE REQUIREMENTS ............................................. UNITS
GEOG 300 Physical Geography: Exploring Earth’s Environmental Systems .................. 3
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) ................................... 3
PSYC 330 Introductory Statistics for the Behavioral Sciences (3) ................................. 3 - 4
or STAT 300 Introduction to Probability and Statistics (4)
or ECON 310 Economic Statistics (3)
A minimum of 6 units from the following:
ANTH 310 Cultural Anthropology (3)
BIOL 350 Environmental Biology (3)
or BIOL 310 General Biology (4)
or BIOL 307 Biology of Organisms (4)
ECON 304 Principles of Microeconomics (3)
or ECON 302 Principles of Macroeconomics (3)
GEOG 302 Environmental Studies & Sustainability (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)

– Continued on next page –
GEOG 391  Field Studies in Geography: Mountain Landscapes (1 - 4)
GEOG 392  Field Studies in Geography: Coastal Landscapes (1 - 4)
GEOG 393  Field Studies in Geography: Arid Landscapes (1 - 4)
GEOG 394  Field Studies in Geography: Volcanic Landscapes (1 - 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 332  American Humanities (3)
or HUM 324  Global Islam: Culture and Civilization (3)
or HUM 320  Asian Humanities (3)
PHIL 352  Introduction to World Religions (3)
POLS 310  Introduction to International Relations (3)
SOC 300  Introductory Sociology (3)

Total Units: 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 (http://www.assist.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.

**Associate Degree**

The Geography Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

**A.S. in Environmental Studies & Sustainability**

**CODE #1635**

The Environmental Studies & Sustainability Associate of Science degree is an interdisciplinary and multidisciplinary program 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.

This 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 provide broad-based environmental 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 (http://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.

**A.S. in Environmental Studies & Sustainability continued**

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; Park Ranger; 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

**DEGREE REQUIREMENTS**  

**UNITS**

<table>
<thead>
<tr>
<th>CORE COURSES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 302</td>
<td>Environmental Studies &amp; Sustainability ............... 3</td>
</tr>
<tr>
<td>BIOL 350</td>
<td>Environmental Biology (3) ........................................ 3</td>
</tr>
<tr>
<td>or BIOL 352</td>
<td>Conservation Biology (3) ............................. 3</td>
</tr>
<tr>
<td>ECON 306</td>
<td>Environmental Economics ............................... 3</td>
</tr>
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<table>
<thead>
<tr>
<th>Field/Applied Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 390</td>
<td>Natural History Field Study (0.5 - 4)</td>
</tr>
<tr>
<td>GEOG 391</td>
<td>Field Studies in Geography: Mountain Landscapes (1 - 4)</td>
</tr>
<tr>
<td>GEOG 392</td>
<td>Field Studies in Geography: Coastal Landscapes (1 - 4)</td>
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<tr>
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</tr>
<tr>
<td>GEOG 394</td>
<td>Field Studies in Geography: Volcanic Landscapes (1 - 4)</td>
</tr>
<tr>
<td>GEOG 390</td>
<td>Field Studies in Geology (1 - 4)</td>
</tr>
<tr>
<td>GEOG 331</td>
<td>Exploring Maps and Geographic Technologies (3)</td>
</tr>
<tr>
<td>GEOG 335</td>
<td>Introduction to Geographic Information Systems Applications (3)</td>
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</table>

<table>
<thead>
<tr>
<th>Natural Science/Ecology Courses</th>
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<tr>
<td>BIOL 300</td>
<td>The Foundations of Biology (3)</td>
</tr>
<tr>
<td>BIOL 307</td>
<td>Biology of Organisms (4)</td>
</tr>
<tr>
<td>BIOL 310</td>
<td>General Biology (4)</td>
</tr>
<tr>
<td>BIOL 400</td>
<td>Principles of Biology (5)</td>
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</table>

<table>
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<tr>
<th>Chemistry Courses</th>
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<tbody>
<tr>
<td>CHEM 305</td>
<td>Introduction to Chemistry (5)</td>
</tr>
<tr>
<td>CHEM 321</td>
<td>Environmental Chemistry (3)</td>
</tr>
<tr>
<td>CHEM 322</td>
<td>Environmental Chemistry Laboratory (1)</td>
</tr>
<tr>
<td>CHEM 400</td>
<td>General Chemistry (5)</td>
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<table>
<thead>
<tr>
<th>Earth Science Courses</th>
<th></th>
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<tbody>
<tr>
<td>GEOG 300</td>
<td>Physical Geography: Exploring Earth’s Environmental Systems (3)</td>
</tr>
<tr>
<td>GEOG 301</td>
<td>Physical Geography Laboratory (1)</td>
</tr>
<tr>
<td>GEOG 305</td>
<td>Global Climate Change (3)</td>
</tr>
<tr>
<td>GEOL 300</td>
<td>Physical Geology (3)</td>
</tr>
<tr>
<td>GEOL 301</td>
<td>Physical Geology Laboratory (1)</td>
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<th>Quantitative Courses</th>
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<tbody>
<tr>
<td>ECON 310</td>
<td>Economic Statistics (3)</td>
</tr>
<tr>
<td>PSYC 330</td>
<td>Introductory Statistics for the Behavioral Sciences (3)</td>
</tr>
<tr>
<td>STAT 300</td>
<td>Introduction to Probability and Statistics (4)</td>
</tr>
<tr>
<td>MATH 350</td>
<td>Calculus for the Life and Social Sciences I (3)</td>
</tr>
<tr>
<td>MATH 400</td>
<td>Calculus I (5)</td>
</tr>
<tr>
<td>ECON 304</td>
<td>Principles of Microeconomics ........................... 3</td>
</tr>
<tr>
<td>GEG 310</td>
<td>Human Geography: Exploring Earth’s Cultural Landscapes ..................... 3</td>
</tr>
</tbody>
</table>

Total Units: 31

— Continued on next page —
Suggested Electives:
ANTH 310, ARCH 302, ARCH 303; ECON 302; GEOG 306; GEOL 330; HORT 302, HORT 313; NUTRI 303

Associate in Science Degree
The Environmental Studies & Sustainability Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF PROFICIENCY
Field Data Mapping and Geographic Information Systems (GIS) Certificate
CODE #2020

CERTIFICATE REQUIREMENTS ..................................................UNITS
GEOG 335 Introduction to Geographic Information Systems Applications...............................................3
GEOG 331 Exploring Maps and Geographic Technologies.............3
A minimum of 6 units from the following:
GEOG 300 Physical Geography: Exploring Earth’s Environmental Systems (3)
GEOG 302 Environmental Studies & Sustainability (3)
GEOG 310 Human Geography: Exploring Earth’s Cultural Landscapes (3)
ANTH 300 Biological Anthropology (3)
ANTH 310 Cultural Anthropology (3)
ANTH 323 Introduction to Archaeology (3)
BIOL 350 Environmental Biology (3)
BIOL 352 Conservation Biology (3)
GEOL 300 Physical Geology (3)

Total Units: ................................................................. 12

CERTIFICATE OF ACHIEVEMENT
Professional Applications of Geographic Information Systems (GIS) Certificate
CODE #1432

A geographic information system (GIS) is a database management system that facilitates the collection and the analysis of geographic data from both the physical and cultural environments. This interdisciplinary certificate program is designed to equip students to use this powerful new technology to display, model and analyze spatial data of all types to assist with problem solving and decision making processes.

CERTIFICATE REQUIREMENTS ..................................................UNITS
A minimum of 3 units from the following:
GEOG 310 Human Geography: Exploring Earth’s Cultural Landscapes (3)
GEOG 330 Physical Geography: Exploring Earth’s Environmental Systems (3)
GEOG 353 Introduction to the Global Positioning System (GPS) .1
GEOG 331 Exploring Maps and Geographic Technologies.............3
GEOG 495 Independent Studies in Geography...........................1-3’

Subtotal Units: ...................................................................... 8 - 10

Architecture
A minimum of 6 units from the following:
ADT 310 Architectural Computer-Aided Drawing I (3)
or ARCH 320 Architectural Design and Communication I (3.5)
or ARCH 330 Introduction to Design Professions (2)
or ARCH 325 Architectural Digital Design and Communication I (3)
Architecture Units: .............................................................6
Total Units: ......................................................................... 14 - 16

Biological Sciences
A minimum of 6 units from the following:
BIOL 420 Principles of Zoology (5)
or BIOL 410 Principles of Botany (5)
or BIOL 400 Principles of Biology (5)
or BIOL 350 Environmental Biology (3)
or BIOL 342 The New Plagues: New and Ancient Infectious Diseases Threatening World Health (3)
or BIOL 307 Biology of Organisms (4)
Biological Sciences Units: ......................................................6
Total Units: ......................................................................... 14 - 16

Business/Marketing/Real Estate
A minimum of 6 units from the following:
MKT 314 Advertising (3)
or MKT 330 Internet Marketing (3)
or RE 120 Real Estate Practice (3)
or RE 140 Real Estate Appraisal (3)
or RE 190 Real Property Management (3)
or RE 300 California Real Estate Principles (3)
or MKT 300 Principles of Marketing (3)
or BUS350 Small Business Management/Entrepreneurship (3)
or BUS300 Introduction to Business (3)
Business/Marketing/Real Estate Units: ......................................6
Total Units: ......................................................................... 14 - 16

Computer Science
A minimum of 6 units from the following:
CISP 360 Introduction to Structured Programming (4)
or CISP 350 Database Programming (3)
or CISP 300 Algorithm Design/Problem Solving (3)
or CISA 321 Intermediate Database Management (1)
or CISA 320 Introduction to Database Management (1)
Computer Science Units: ..........................................................6
Total Units: ........................................................................ 14 - 16

Earth Science
A minimum of 6 units from the following:
GEOL 330 Introduction to Oceanography (3)
or GEOL 305 Earth Science (3)
or GEOL 300 Physical Geology (3)
or GEOG322 Geography of California (3)
or GEOG320 World Regional Geography (3)
or GEOG306 Weather and Climate (3)
Earth Science Units: ............................................................. 6
Total Units: ......................................................................... 14 - 16

Public Safety/Fire Technology
A minimum of 6 units from the following:
FT 320 Hazardous Materials (3)
or FT 301 Fire Prevention Technology (3)
or FT 300 Fire Protection Organization (3)
Public Safety/Fire Technology Units: ........................................6
Total Units: ......................................................................... 14 - 16

Social Science
A minimum of 6 units from the following:
SOC 300 Introductory Sociology (3)
or SOC 301 Social Problems (3)
or ANTH 310 Cultural Anthropology (3)
or ANTH 300 Biological Anthropology (3)
Social Science Units: ............................................................. 6
Total Units: ......................................................................... 14 - 16

’ Only one unit required. Independent study unit must be GIS related.
CERTIFICATE OF ACHIEVEMENT
Sustainability Certificate
CODE #2017

This certificate advances student’s understanding of the principles of sustainability and sustainable practices with respect to ecosystems, green buildings, business, agriculture, nutrition, natural resource management and conservation, waste management, energy, transportation systems, urban planning and design, and more. Theoretical and practical aspects of sustainability are explored including social, economic, and environmental dimensions.

CERTIFICATE REQUIREMENTS ........................................... UNITS
GEOG 302 Environmental Studies & Sustainability ......................... 3
A minimum of 9 units from the following:
ARCH 342 Introduction to Green Buildings (3)
BIOL 350 Environmental Biology (3)
BIOL 352 Conservation Biology (3)
ECON 306 Environmental Economics (3)
GEOG 300 Physical Geography: Exploring Earth’s Environmental Systems (3)
GEOG 305 Global Climate Change (3)
HORT 300 Introduction to Horticulture (3)
PLTS 310 Soils, Soil Management, and Plant Nutrition (3)
or HORT 302 Soils, Soil Management, and Plant Nutrition (3)
HORT 313 Sustainable Agriculture (3)
NUTRI 303 Plant-Based Nutrition (3)
NUTRI 331 Plant-Based Food Principles and Preparation (3)

Total Units: ................................................................. 12

GEOGRAPHY (GEOG)

GEOG 300
Physical Geography: Exploring Earth’s Environmental Systems 3 Units
Hours: 54 hours LEC
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.
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
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
Hours: 54 hours LAB
Prerequisite: None.
Corequisite: GEOG 300; GEOG 300 may be taken during a previous semester. Grade of “C” or better required if taken previously.
Course Transferable to CSU; UC
General Education: CSU Area B3; IGETC Area 5A
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D5; CSU Area D7; IGETC Area 4E; IGETC Area 4G
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 — 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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
This introductory course explores the natural and human factors causing the Earth’s climate to change. Students will be provided with the scientific tools to analyze 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.
GEOG 306
Weather and Climate 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: MATH 30, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
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 331
Exploring Maps and Geographic Technologies 3 Units
Hours: 48 hours LEC; 18 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area IV
Maps are the most effective way to communicate spatial information. This course introduces students to the quickly changing world of maps (both hardcopy 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. (C-ID GEOG 150)

GEOG 310
Human Geography: Exploring Earth's Cultural Landscapes 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D5; IGETC Area 4E
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 120)

GEOG 320
World Regional Geography 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D5; IGETC Area 4E
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 120)

GEOG 322
Geography of California 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D5; IGETC Area 4E
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 391
Field Studies in Geography: Mountain Landscapes 1 - 4 Units
Hours: 6 - 24 hours LEC; 36 - 144 hours LAB
Prerequisite: None.
Course Transferable to CSU
This course involves the study of geographic principles and processes in mountain environments. The 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 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 excursions are required.

GEOG 392
Field Studies in Geography: Coastal Landscapes 1 - 4 Units
Hours: 6 - 24 hours LEC; 36 - 144 hours LAB
Prerequisite: None.
Course Transferable to CSU
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. (C-ID GEOG 160)

GEOG 393
Field Studies in Geography: Arid Landscapes 1 - 4 Units
Hours: 6 - 24 hours LEC; 36 - 144 hours LAB
Prerequisite: None.
Course Transferable to CSU
This course involves the study of geographic principles and processes in arid environments. The 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 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 excursions are required.

GEOG 394
Field Studies in Geography: Volcanic Landscapes 1 - 4 Units
Hours: 6 - 24 hours LEC; 36 - 144 hours LAB
Prerequisite: None.
Course Transferable to CSU
This course involves the study of geographic principles and processes in volcanic environments. The 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 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 excursions are required.

GEOG 482
Honors Seminar in Geography 1 Unit
Same As: HONOR 384
Hours: 9 hours LEC; 27 hours LAB
Prerequisite: None.
Course Transferable to CSU
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.

GEOG 495
Independent Studies in Geography 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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.

GEOG 499
Experimental Offering in Geography .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
DEGREE
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.
ASSOCIATE DEGREES

A.S. in General Science

Please see page 373 for more information

A.S.-T. in Geology

CODE #1990

Note to Transfer Students:
The Associate in Science in Geology for Transfer Degree (A.A.-T) is designed to provide a seamless transfer pathway for students interested in pursuing at least one Geology 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.

DEGREE REQUIREMENTS ......................................................... UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>GEOL 300</td>
<td>Physical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 301</td>
<td>Physical Geology Laboratory</td>
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<tr>
<td>GEOL 310</td>
<td>Historical Geology</td>
<td>1</td>
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<tr>
<td>CHEM 400</td>
<td>General Chemistry I</td>
<td>5</td>
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<tr>
<td>CHEM 401</td>
<td>General Chemistry II</td>
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<td>MATH 400</td>
<td>Calculus I</td>
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<tr>
<td>MATH 401</td>
<td>Calculus II</td>
<td>5</td>
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</tbody>
</table>

Total Units: 28

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) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

A.S. in Geology

CODE #0642

This degree is designed to meet common lower division requirements for a major in Geology.

DEGREE REQUIREMENTS ......................................................... UNITS

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<tr>
<th>Course Code</th>
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<th>Units</th>
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<tbody>
<tr>
<td>CHEM 400</td>
<td>General Chemistry I</td>
<td>5</td>
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<tr>
<td>CHEM 401</td>
<td>General Chemistry II</td>
<td>5</td>
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<td>GEOL 300</td>
<td>Physical Geology</td>
<td>3</td>
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<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>
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<tr>
<td>GEOL 311</td>
<td>Historical Geology Laboratory</td>
<td>1</td>
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<tr>
<td>MATH 400</td>
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<tr>
<td>MATH 401</td>
<td>Calculus II</td>
<td>5</td>
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</tbody>
</table>

Total Units: 28

Associate Degree
The Geology Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

GEOLOGY (GEOL)

GEOL 300
Physical Geology 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Concurrent enrollment in GEOL 301.
Course Transferrable to CSU; UC
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
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
Hours: 54 hours LAB
Prerequisite: None.
Corequisite: GEOL 300 (may be taken previously)
Course Transferrable to CSU; UC
General Education: CSU Area B3; IGETC Area 5A
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferrable to CSU; UC (No transfer credit for GEOL 305 or 306, if taken after GEOL 300, 301, 310, or 311)
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
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. (C-ID GEOL 120)

GEOL 306
Earth Science Laboratory 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Corequisite: GEOL 305
Course Transferrable to CSU; UC (No transfer credit for GEOL 305 or 306, if taken after GEOL 300, 301, 310, or 311)
General Education: CSU Area B3; IGETC Area 5A
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)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Hours</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 310</td>
<td>Historical Geology</td>
<td>3</td>
<td>54 LEC</td>
<td>None.</td>
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<tr>
<td></td>
<td>Advisory: GEOL 300 or 305. An introductory geology or earth science course.</td>
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<td>Course Transferrable to CSU; UC</td>
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<td></td>
<td>General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A</td>
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<td>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)</td>
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<tr>
<td>GEOL 311</td>
<td>Historical Geology Laboratory</td>
<td>1</td>
<td>54 LAB</td>
<td>None.</td>
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<tr>
<td></td>
<td>Corequisite: GEOL 310</td>
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<td></td>
<td>Advisory: GEOL 300 and 301</td>
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<td>Course Transferrable to CSU; UC</td>
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<td>General Education: CSU Area B3; IGETC Area 5A</td>
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<td>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)</td>
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<tr>
<td>GEOL 330</td>
<td>Introduction to Oceanography</td>
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<td>54 LEC</td>
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<td>Course Transferrable to CSU; UC</td>
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<tr>
<td></td>
<td>General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A</td>
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<td>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.</td>
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<tr>
<td>GEOL 390</td>
<td>Field Studies in Geology</td>
<td>1 - 4</td>
<td>6 - 24 LEC; 36 - 144 LAB</td>
<td>None.</td>
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<td></td>
<td>Advisory: GEOL 300 or 305</td>
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<td>Course Transferrable to CSU; UC</td>
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<td>This course covers the study of geologic principles and processes of specific areas (mountains, deserts, great valley, coastal region, etc.). A multi-day field trip and camping may be required. For specific details, see the course description(s) listed in the schedule.</td>
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</table>
HEALTH EDUCATION (HEED)

HEED 300
Health Science 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(b); CSU Area E1
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area III(b); CSU Area E1
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Data Quality Manager
Medical Staff Coordinator
Health Information Abstractor
Supervisor, Health Information
ICD/CPT Coder
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. As the aging population continues to increase, employment is expected to grow 13% (faster than average) from 2016 to 2026. (Bureau of Labor Statistics, 2018).
- 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 median annual wage is $39,180 (Bureau of Labor Statistic, 2018).
- 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

ASSOCIATE DEGREE
A.S. in Health Information Technology
CODE #1252

The CRC Health Information Technology A.S. degree program is designed to train health information professionals with the knowledge and skills to process, analyze, disseminate and maintain health care information. A career as a health information professional offers a unique opportunity to combine an interest in health information, business, and computer information science. Employment opportunities are available in long-term care, ambulatory care, and acute care facilities; state and federal health agencies; and private industry.

Highlights:
According to the Bureau of Labor Statistics, employment of medical records and health information technicians is expected to increase by 21 percent from 2010 to 2020, faster than the average for all occupations.

*The HIT A.S. Degree Program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) in cooperation with the Council on Accreditation of the American Health Information Management Association (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:

- A grade of "C" or better in the following courses; AH 110, AH 124, and BIOL 100 or 102.
- Completion of a pre-enrollment form. See the Program website for more information.

Enrollment Process:
Eligible students are selected for the program according to the following steps:

- Only students who meet the enrollment eligibility criteria will be considered for the program.

DEGREE REQUIREMENTS ...................................................UNITS
HIT 100 Introduction to Health Information Technology: Hospital Settings ........................................... 3¹
HIT 102 Introduction to Health Information Technology: Alternative Settings ......................................... 3¹
HIT 120 Basic ICD-CM Coding ............................................. 2
AH 120 Human Disease ...................................................... 3
CISC 302 Computer Familiarization .................................... 2
HIT 122 Advanced ICD Coding ............................................. 4
HIT 130 Health Statistics ...................................................... 2
HIT 140 Computerized Health Information Systems .......... 2
HIT 150 Medical Legal Aspects of Health Information ....... 2
HIT 150 Continuous Quality Improvement ......................... 2
HIT 170 Health Information Technology Directed Practice I ... 4
HIT 160 Supervision for the Allied Health Professional ....... 2
CISA 315 Introduction to Electronic Spreadsheets .......... 2
CISA 320 Introduction to Database Management ............... 1
Total Units: ..................................................................... 35

¹ AH 110 and AH 124 and BIOL 100 or 102 must be completed prior to enrolling in the AH 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, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Health Information Coding Specialist Certificate
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 Health Information Coding Specialist Program, the student must meet the following criteria:

- A grade of “C” or better in the following courses; AH 110, AH 124, and BIOL 100 or 102.
- Completion of a pre-enrollment form. The form is available online on the Health Information Technology website.

CERTIFICATE REQUIREMENTS .............................................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 .......................................................... 3¹
CISA 315 Introduction to Electronic Spreadsheets .......... 2
CISA 320 Introduction to Database Management ............... 1
Total Units: ..................................................................... 27

¹ 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.
HEALTH INFORMATION TECHNOLOGY (HIT)

HIT 100  Introduction to Health Information Technology: Hospital Settings  3 Units
Hours: 45 hours LEC; 27 hours LAB
Prerequisite: None.
This course is an introduction to health records systems in the acute care setting focusing on procedures for completion, maintenance, and preservation of health information. The relationship between health information management and the health care delivery system will also be discussed. Students will become familiar with the concept of accreditation, certification, and licensing of health care facilities with emphasis on the accreditation survey process.

HIT 102  Introduction to Health Information Technology: Alternative Settings  2 Units
Hours: 36 hours LEC
Prerequisite: None.
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  2 Units
Hours: 36 hours LEC
Prerequisite: HIT 100 with a grade of “C” or better
This course explores the legal aspects surrounding the maintenance, use, disclosure, and protection of health information. Policies and procedures that guide the handling of health information to prevent inappropriate use and improper disclosure will be discussed.

HIT 120  Basic ICD-CM Coding  2 Units
Hours: 27 hours LEC; 27 hours LAB
Prerequisite: AH 120 with a grade of “C” or better
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  4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: HIT 120 with a grade of “C” or better
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.

Hours: 27 hours LEC; 27 hours LAB
Prerequisite: AH 120 with a grade of “C” or better
The principles and mechanics of coding procedures according to the Current Procedural Terminology Coding System (CPT) are taught in this course. Coding for reimbursement will be introduced, including topics such as: third-party payers, health care reimbursement systems and the impact of HIPAA on reimbursement.

HIT 130  Health Statistics  2 Units
Hours: 27 hours LEC; 27 hours LAB
Prerequisite: HIT 100 with a grade of “C” or better
This course will introduce the principles of health care statistics including the process of abstracting data from medical records, the preparation of administrative and medical reports, the use of statistics in medical research, the applications of automated systems, and the interpretation of reports and the registration of vital statistics. Automated abstracting and vital statistics systems, as well as the use of spreadsheet packages for data display will be introduced.

HIT 140  Computerized Health Information Systems  2 Units
Hours: 27 hours LEC; 27 hours LAB
Prerequisite: CISC 302 with a grade of "C" or better
This online course will provide practical experience in the use of software programs commonly used in health information, including master patient index, chart tracking, abstracting, encoders and groupers, release of information, birth registration, and incomplete record management systems. Emphasis will also be placed on the use of spreadsheet and database programs in the manipulation and use of health information. Use and maintain applications and processes to support other clinical classification and nomenclature systems (such as ICD-10-CM, SNOMED, and so on).

HIT 150  Continuous Quality Improvement  2 Units
Hours: 36 hours LEC
Prerequisite: None.
This course will provide an overview of Continuous Quality Improvement inherent in the health care industry. Students will explore the history and development of Continuous Quality Improvement (CQI) efforts in health care. Students will also discuss quality and process improvement techniques applicable to health care. The roles and responsibilities of individuals involved in medical staff peer review, utilization review and risk management will be presented to students. The concept of an organized medical staff will be discussed, as well as the role of the medical staff office. The variety of computer applications available for CQI and Medical Staff Organization (MSO) functions will also be presented to students.

HIT 160  Supervision for the Allied Health Professional  2 Units
Hours: 36 hours LEC
Prerequisite: None.
This course studies classic and current management principles in the healthcare setting. Students will be introduced to leadership styles, motivation principles, ethical standards, communication principles, and strategies for dealing with difficult behavior in the workplace.
HIT 170
Health Information Technology Directed Practice I 4 Units
Hours: 36 hours LEC; 108 hours LAB
Prerequisite: HIT 102, 110, 122, 123, 140, and 150 with grades of “C” or better
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 172
Directed Practice: Health Information Coding Specialist 2 Units
Hours: 27 hours LEC; 27 hours LAB
Prerequisite: HIT 122 and 123 with grades of “C” or better
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Health Information Technology.
General Education: AA/AS Area III(b)
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 studying, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.
CERTIFICATES OF ACHIEVEMENT
Health Records IT Implementation Support Specialist
Health Records IT Technical Support Specialist
Health Records IT Trainer

Program Description
The Health Records 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 Records 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 records 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 Records 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 Records IT Trainer Certificate will prepare students to design and deliver training programs, using adult learning principles, to employees in clinical and public health settings on the use of health records IT systems.

Career Opportunities
Health Records 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 Records 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 Records 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 ACHIEVEMENT
Health Records IT Implementation Support Specialist Certificate
CODE #1957

Students who complete this certificate will be prepared to provide on-site user support for the period of time before and during implementation of Health 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.

CERTIFICATE REQUIREMENTS ........................................... UNITS
1st Semester:
CISA 320 Introduction to Database Management ..................... 1
CISC 308 Exploring Computer Environments and the Internet .... 1
CISC 356 Introduction to Local Area Networks ...................... 1.5
CISC 310 Introduction to Computer Information Science .......... 3

2nd Semester:
AH 110 Medical Language for Health-Care Providers ...........  3
HRIT 102 The Culture of Health Care (2) ......................... 2
HRIT 112 Networking and Health Information Exchange for Health Records IT Professionals ............... 2

3rd Semester:
HRIT 132 Configuring Electronic Health Records (EHRs) ....... 2
HRIT 140 Introduction to Health Records Management Information Systems ..................................... 2
HRIT 142 Installation and Maintenance of Health Records IT Systems ........................................ 2
HRIT 160 Professionalism and Customer Service in the Health Care Environment ............................ 1
HRIT 164 Usability and Human Factors in Health Records IT .................. 1

4th Semester:
HRIT 144 Working with Health Records IT Systems ............ 2
HRIT 162 Training and Instructional Design in Health Records IT ...................................................... 1
HRIT 180 Special Topics Course on Vendor-Specific Systems in Health Records IT .......................... 1
COMM 341 Organizational Communication (3) .................. 3
or COMM 361 The Communication Experience (3) ....... 3

Total Units: ........................................................................ 28.5

CERTIFICATE OF ACHIEVEMENT
Health Records IT Technical Support Specialist Certificate
CODE #1958

Students who complete this certificate will be prepared to support, on an ongoing basis, the technology deployed in clinical and public health settings. 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.

CERTIFICATE REQUIREMENTS ........................................... UNITS
1st Semester:
CISA 320 Introduction to Database Management ..................... 1
CISC 308 Exploring Computer Environments and the Internet .... 1
CISC 310 Introduction to Computer Information Science .......... 3
CISC 356 Introduction to Local Area Networks ...................... 1.5

2nd Semester:
AH 110 Medical Language for Health-Care Providers ........... 3
HRIT 112 Networking and Health Information Exchange for Health Records IT Professionals ........... 2

3rd Semester:
HRIT 142 Installation and Maintenance of Health Records IT Systems ........................................ 2
HRIT 160 Professionalism and Customer Service in the Health Care Environment ................................ 1
HRIT 180 Special Topics Course on Vendor-Specific Systems in Health Records IT .......................... 1
CISS 310 Network Security Fundamentals .......................... 3

4th Semester:
HRIT 132 Configuring Electronic Health Records (EHRs) ....... 2
HRIT 144 Working with Health Records IT Systems ............ 2
HRIT 164 Usability and Human Factors in Health Records IT .......... 1
CISN 490 Networking Helpdesk Practicum ....................... 3

Total Units: ........................................................................ 26.5

CERTIFICATE OF ACHIEVEMENT
Health Records IT Trainer Certificate
CODE #1964

Students who complete this certificate will be prepared to design and deliver training programs, using adult learning principles, to employees in clinical and public health care settings.

CERTIFICATE REQUIREMENTS ........................................... UNITS
1st Semester:
CISC 310 Introduction to Computer Information Science .......... 3
AH 110 Medical Language for Health-Care Providers ........... 3
HRIT 160 Professionalism and Customer Service in the Health Care Environment .................................. 1

2nd Semester:
HRIT 100 Introduction to Health Care and Public Health in the U.S. (2) .................................................... 2
HRIT 112 Networking and Health Information Exchange for Health Records IT Professionals (2) ........ 2
HRIT 140 Introduction to Health Records Management Information Systems ........................................ 2

3rd Semester:
HRIT 162 Training and Instructional Design in Health Records IT .............................................................. 1
HRIT 164 Usability and Human Factors in Health Records IT .......... 1
HRIT 180 Special Topics Course on Vendor-Specific Systems in Health Records IT .......................... 1
COMM 301 Introduction to Public Speaking (3) .................. 3

or COMM 331 Group Discussion (3) .................. 3

Total Units: ........................................................................ 19
HEALTH RECORDS INFO
TECHNOLOGY (HRIT)

HRIT 100
Introduction to Health Care and Public Health in the U.S. 2 Units
Hours: 36 hours LEC
Prerequisite: None.
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.

HRIT 102
The Culture of Health Care 2 Units
Hours: 36 hours LEC
Prerequisite: None.
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.

HRIT 104
Medical Terminology for Health Records IT Professionals 2 Units
Hours: 36 hours LEC
Prerequisite: None.
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 HRIT 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.

HRIT 112
Networking and Health Information Exchange for Health Records IT Professionals 2 Units
Hours: 36 hours LEC
Prerequisite: CISC 310 or HCIT 110 with a grade of “C” or better
This course is designed to give IT Professionals an overview of data mobility. Students will learn about hardware infrastructure, Internet protocols, nationwide health records information systems, and other nationwide approaches.

HRIT 132
Configuring Electronic Health Records (EHRs) 2 Units
Hours: 27 hours LEC; 27 hours LAB
Prerequisite: AH 110 or HCIT 104 with a grade of “C” or better
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.

HRIT 140
Introduction to Health Records Management Information Systems 2 Units
Hours: 36 hours LEC
Prerequisite: None.
This course is an introduction to health records IT standards, health-related data structures, software applications, and enterprise architecture in health care and public health organizations.

HRIT 142
Installation and Maintenance of Health Records IT Systems 2 Units
Hours: 27 hours LEC; 27 hours LAB
Prerequisite: CISA 320, CISC 356, and HCIT 112 with grades of “C” or better
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.

HRIT 144
Working with Health Records IT Systems 2 Units
Hours: 27 hours LEC; 27 hours LAB
Prerequisite: HCIT 142 with a grade of “C” or better
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.

HRIT 160
Professionalism and Customer Service in the Health Care Environment 1 Unit
Hours: 18 hours LEC
Prerequisite: None.
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.

HRIT 162
Training and Instructional Design in Health Records IT 1 Unit
Hours: 18 hours LEC
Prerequisite: None.
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 Records IT.

HRIT 164
Usability and Human Factors in Health Records IT 1 Unit
Hours: 18 hours LEC
Prerequisite: None.
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.

HRIT 180
Special Topics Course on Vendor-Specific Systems in Health Records IT 1 Unit
Hours: 18 hours LEC
Prerequisite: None.
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.
HRIT 298
Work Experience in Health Records Information Technology 1 - 4 Units
Hours: 60 - 300 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Health Records Information Technology.
General Education: AA/AS Area III(b)
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.

HRIT 299
Experimental Offering in Health Records Information Technology .5-4 Units
Prerequisite: None
Hours: 18 hours LEC; 54 hours LAB
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.
HISTORY (HIST)

HIST 301
History of Western Civilization (to 1660)  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 300
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D6; IGETC Area 4F
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-economic structures of various peoples discussed during the four thousand six hundred year time period. Finally, the birth, growth, and later fragmentation of Christianity will be covered. (C-ID HIST 170)

HIST 302
History of Western Civilization  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 300
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D6; IGETC Area 4F
This is a survey 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-economic 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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 300, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D6; IGETC Area 4F
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  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: ENGR 300, or equivalent skills demonstrated through the assessment process.  
Course Transferable to CSU; UC  
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D6; IGETC Area 4F  
History 308 is a survey course on world civilization from 1500 to the present age. The course will cover the political, economic, and intellectual developments of various world social and cultural structures. Particular emphasis will be placed upon the increased integration of peoples and cultures as a result of globalization. Additional focus will center upon the influencing effects of modern warfare, military technology, and international politics in shaping world society. Analysis of these revolutionary changes of the past five hundred years will offer a better understanding of world society today. (C-ID HIST 160)

HIST 310  
History of the United States 3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: ENGR 300 with a grade of “C” or better  
Course Transferable to CSU (Previously HIST 312); UC (History 310 & 320 combined: Maximum transfer credit is one course.)  
General Education: AA/AS Area V(a); CSU Area D (effective Fall 2019); CSU Area F1 (effective Fall 2019); CSU Area F2 (effective Fall 2019); IGETC Area 4 (effective Fall 2019)  
This is a survey course on the establishment and development of the United States from its colonial beginnings to the end of Reconstruction in 1877. Particular emphasis will be placed upon the political, economic, social, and cultural developments of the United States during the designated time period. The course will cover the ideological influences that were instrumental in shaping the Constitution and other related government structures. Additionally, the course will address the institution of slavery and how the divisive issue dismembered the nation and further complicated the process of Reconstruction. (C-ID HIST 130 (effective Fall 2019))

HIST 311  
History of the United States 3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: ENGR 300 with a grade of “C” or better  
Course Transferable to CSU (Previously HIST 313); UC (History 311 & 321 combined: Max transfer credit is one course.)  
General Education: AA/AS Area V(a); CSU Area D (effective Fall 2019); CSU Area F1 (effective Fall 2019); CSU Area F2 (effective Fall 2019); IGETC Area 4 (effective Fall 2019)  
This is a survey course on 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, economic, and cultural developments during the designated time period. The course will cover the establishment and evolutionary status of the U.S. as a leading world power. Additionally, the course will address the changes to American society resulting from various revolutionary movements on race, gender, orientation, and labor. Includes coverage of California state and local government. (C-ID HIST 140 (effective Fall 2019))

HIST 312  
History of the United States (to 1865) 3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: ENGR 300  
Course Transferable to CSU; UC (HIST 312 and 320 combined: maximum transfer credit is one course)  
General Education: AA/AS Area V(a); CSU Area D; CSU Area F1; CSU Area F2; IGETC Area 4F  
This is a survey course on the establishment and development of the United States from its colonial beginnings to the end of Reconstruction in 1877. Particular emphasis will be placed upon the political, economic, social, and cultural developments of the United States during the designated time period. The course will cover the ideological influences that were instrumental in shaping the Constitution and other related government structures. Additionally, the course will address the institution of slavery and how the divisive issue dismembered the nation and further complicated the process of Reconstruction. (C-ID HIST 130)

HIST 313  
History of the United States (1865-1945) 3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: ENGR 300  
Course Transferable to CSU; UC (HIST 313 and 321 combined: maximum transfer credit is one course)  
General Education: AA/AS Area V(a); CSU Area D; CSU Area F1; CSU Area F2; IGETC Area 4F  
This is a survey course on the development and growth of the United States from the end of Reconstruction in 1877 to the present day. Particular emphasis will be placed upon the political, economic, social and cultural developments during the designated time period. The course will cover the establishment and evolutionary status of the U.S. as a leading world power. Additionally, the course will address the changes to American society resulting from various revolutionary movements on race, gender, orientation, and labor. Includes coverage of California state and local government. (C-ID HIST 140)

HIST 314  
Recent United States History 3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Advisory: ENGR 300  
Course Transferable to CSU; UC  
General Education: AA/AS Area V(a); CSU Area D; CSU Area F1; CSU Area F3; IGETC Area 4F  
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 time 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.
HIST 320
History of the United States: African-American Emphasis  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGW 300
Course Transferable to CSU; UC (HIST 312 and 320 combined: maximum transfer credit is one course)
General Education: AA/AS Area V(a); CSU Area D; CSU Area F1; CSU Area F2; IGETC Area 4F
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.

HIST 321
History of the United States: African-American Emphasis  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGW 300
Course Transferable to CSU; UC (HIST 313 and 321 combined: maximum transfer credit is one course)
General Education: AA/AS Area V(a); CSU Area D; CSU Area F1; CSU Area F3; IGETC Area 4F
U.S. History from 1865 to the present, including coverage of the state and local government, with an increased emphasis on the role of black women as well as men, spelling out their specific contributions in the growth and development of the nation. It includes coverage of California state and local government.

HIST 331
Women in American History  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGW 300
Course Transferable to CSU; UC
General Education: AA/AS Area V(a); CSU Area D; CSU Area F1; IGETC Area 4F
Survey history of the United States from 1607 to the present, emphasizing the economic and social conditions that gave women more actual respect and some public power. Course includes the roles of women in Native American tribes, the English heritage of the colonists, the contributions of women in creating new homes and farms, and the role of women in times of war. Emphasis on the role of women in the three major social issues of the 19th century: labor, abolition, and women’s rights. Includes present-day issues and the legacy of how women in the past dealt with similar issues.

HIST 344
Survey of California History: A Multicultural Perspective  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGW 300
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area Vt; CSU Area D6; IGETC Area 4F
This is a survey course on the development and growth of California from its origins to the present time. Particular emphasis will be placed upon California’s multicultural heritage and the state’s significant local history. The course will examine, compare, and evaluate the historical experiences of Native Californians, Spanish, Mexican, Asian, African, and European Americans. Field trips to local sites of historical significance may be included.

HIST 360
History of African Civilizations  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGW 300
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D6; IGETC Area 4F
This course is an introductory survey of the history of Africa from earliest times to the present. Major topics will include origins of humanity and society, civilizations of the Nile Valley, the peopling of Sub-Saharan Africa, African societies to 1500 A.D., precolonial Saharan and Sub-Saharan Africa, colonial Africa and the emergence of modern state in Africa.

HIST 364
Asian Civilization  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGW 300
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area I; CSU Area C2; CSU Area D6; IGETC Area 3B; IGETC Area 4F
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGW 300
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area I; CSU Area C2; CSU Area D6; IGETC Area 3B; IGETC Area 4F
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGW 300
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D6; IGETC Area 4F
This course is a general historical survey of North, Central, and South America from the earliest civilizations through to 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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGWR 300
Course Transferable to CSU; UC
General Education: AA/AS Area V(a); CSU Area D6; IGETC Area 4F
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGWR 300
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D6; IGETC Area 4F
History 373 is a survey course on the origins and development of Mexico from c. 2500 BCE to the present. In addition to discussing the early civilizations of Mesoamerica, the course will evaluate the political, economical, social, and cultural evolution of Mexico from the colonial era to the present day. Finally, Mexico's relationship with the United States and other western powers will be addressed.

HIST 380
History of the Middle East 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 101, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area C2; CSU Area D6; IGETC Area 3B; IGETC Area 4
This course surveys the history of the Middle East and North Africa with emphasis on the period from the 6th 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 485
Recent United States History - Honors 3 Units
Same As: HONOR 366
Hours: 54 hours LEC
Prerequisite: ENGWR 101 or ESLW 320 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Enrollment Limitation: Enrollment is limited to students that are eligible for the Cosumnes River College Honors Program.
Course Transferable to CSU; UC
This course is an introduction to the study of American history from 1945 to the present day. It is an honors course that uses an intensive instructional methodology designed to challenge motivated students and cultivate advanced critical thinking skills. Particular emphasis will be placed on the role played by complex interrelationships of political, economic, social, and cultural forces in United States history after World War II, and the role played by multiple ethnic groups as well. This course is not open to students who have completed HIST 314. 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 366 and only one may be taken for credit.

HIST 495
Independent Studies in History 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Program Description
CRC offers the basic grammar and conversation courses in Hmong. 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 Aid  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 Hmong
- Multimedia, interactive language lab with Internet capabilities
- Internationally trained faculty and staff
- Oral Proficiency Certification in Hmong

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

HMONG (HMONG)

HMONG 401
Elementary Hmong  4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: CSU Area C2; IGETC Area 6
This course will provide an introduction to the Hmong language at the elementary 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 expressions including terms for addressing, numbers, time, dates, days, weather, and kinship terms. 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. Students will also acquire knowledge of the geography, culture and people of regions where Hmong is spoken as well as Hmong-speakers’ contributions to North American and world-wide cultures.

HMONG 402
Elementary Hmong II  4 Units
Hours: 72 hours LEC
Prerequisite: HMONG 401 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: CSU Area C2; IGETC Area 6
This is the second course in the Elementary Hmong sequence. It is designed for students who have completed Hmong 401 and provides refinement of skills learned in Hmong 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 Hmong is spoken and of Hmong speakers’ contributions to North American and world cultures.

HMONG 499
Experimental Offering in Hmong  .5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
HONORS PROGRAM

A course of study for academically accomplished students and students with the potential for high academic achievement

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 enhanced General Education study opportunities supporting intellectual growth, scholarly relationships with peers, and faculty-student engagement beyond that generally associated with lower-division undergraduate programs. Honors Program participation supports transfer and scholarship opportunities at select transfer colleges and universities including UCLA, in whose Transfer Alliance Partnership CRC is a member. Honors Program students receive enhanced access to career and academic advising as well as enhanced opportunities for scholarship, including the opportunity to pursue their own original research.

Honors
The Honors Program offers special intensive one-unit seminars, three-unit seminars, and three-unit lecture courses. Honors seminars 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. Honors seminars are often interdisciplinary in nature and address advanced topics outside or beyond the general curriculum. Honors lecture courses rigorously address topics within the general curriculum. Three-unit Honors seminars and Honors lecture courses are created to satisfy specific General Education requirements at CRC, California State University, and the University of California. Field trips to attend events or to do research may be an integral part of the Honors course experience.

The CRC Honors Program is a restricted admissions program; you must successfully apply to the Honors Program in order to participate in it. The Honors Program encourages applications from all interested students and enrols individuals into the program based on evidence of their potential to benefit from Honors coursework. 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 and further information available from Honors program faculty and online at http://www.crc.losrios.edu/honors

NOTE:
Transferable courses can 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

HONORS SCHOLAR DESIGNATION

Honors students who complete 15 units or more in honors-designated courses will earn special recognition as an Honors Scholar, a distinction that may entitle students to enhanced transfer and scholarship opportunities at select transfer colleges and universities. Completion of the certificate with a cumulative grade point average (GPA) of 3.5 or better offers enhanced prospects for transfer to elite four-year institutions and enables students to participate in CRC’s Transfer Alliance Partnership with UCLA. A maximum of 6 units of approved Honors coursework completed at other colleges may be applied towards satisfaction of the 15 unit requirement. Interested students should contact their counselor, the Honors Program Director (Dr. Rick Schubert), or the Vice President of Instruction and Student Learning (Dr. Robert Montanez). Honors students should meet regularly with an Honors faculty advisor to ensure completion of Honors Scholar requirements in a timely fashion. Courses that qualify as part of the program are listed below.

REQUIRED PROGRAM................................................................. UNITS
Select 15 units from the following:

HONOR 340/COMM 480 Honors Seminar: Political Campaign Communication (3)
HONOR 341/COMM 315 Honors Seminar: Persuasion within Social Issues (3)
HONOR 350/FMS 488 Honors Seminar: Intro to Critical Theory (3)
HONOR 352/FMS 489 Honors Seminar: Films of Alfred Hitchcock (3)
HONOR 364 Honors Seminar: Philosophy of the Martial Arts (3)
HONOR 366 Recent United States History (3)
HONOR 367 Introduction to American Government (3)
HONOR 375/ENGWR 480 Honors College Composition (3)
HONOR 378/ENGLT 488 Honors - Literature Adapted into Film (3)
HONOR 385/BIOL 485 Honors Seminar in Genetics (3)
HONOR 391/MATH 483 Honors Seminar in Mathematics – Topics in Number Theory (1)
HONOR 392/MATH 484 Honors Seminar in Mathematics – Topics in Number Theory (1)
HONOR 393/STAT 480 Introduction to Probability and Statistics – Honors (4)

TOTAL UNITS REQUIRED......................................................... 15
HONORS (HONOR)

HONOR 340
Honors Seminar: Political Campaign Communication 3 Units
Same As: COMM 480
Hours: 54 hours LEC
Prerequisite: None.
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 CSU; UC
General Education: AA/AS Area V(b); CSU Area D7; IGETC Area 4G

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 341
Honors Seminar: Persuasion within Social Issues 3 Units
Same As: COMM 482
Hours: 54 hours LEC
Prerequisite: ENGLWR 300, ENGLWR 480, or HONOR 375 with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.

Enrollment Limitation: Enrollment is limited to Honors Program students.

Course Transferable to CSU; UC
General Education: CSU Area A3; IGETC Area 1B

This seminar-style course will introduce students to the 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. The writing assignments will apply theoretical models of critical thinking and communication studies 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. Students explore ethical considerations of persuasive communication, learn about types of reasoning, and identify fallacious arguments as they occur in persuasion. Students will focus on the design and organization of persuasive messages within a speech format for an individual or group presentations for a live audience. This course offers honors students the opportunity to study, critique, discuss and present advanced topics to focus on the impact of persuasive attempts within ethical, social and political issues. Access to a computer with online capabilities may be required and computer access is available on campus. 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. As COMM 315, Persuasion, has a similar basis as this Honors course, this course is not open to a student that has received credit for COMM 315, Persuasion. This course is the same as COMM 482 and only one may be taken for credit.

HONOR 350
Honors Seminar: Introduction to Critical Theory 3 Units
Same As: FMS 488
Hours: 54 hours LEC
Prerequisite: None.

Course Transferable to CSU; UC
General Education: AA/AS Area 1; CSU Area C2; IGETC Area 3B

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
Hours: 54 hours LEC
Prerequisite: None.

Course Transferable to CSU; UC
General Education: AA/AS Area 1

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 364
Honors Seminar: Philosophy of the Martial Arts 3 Units
Hours: 54 hours LEC
Prerequisite: None.

Course Transferable to CSU; UC
General Education: CSU Area C2; IGETC Area 3B

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 both 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 366
Recent United States History - Honors 3 Units
Same As: HIST 485
Hours: 54 hours LEC
Prerequisite: ENGWR 101 or ESLW 320 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process. Enrollment Limitation: Admission to the Honors Program
Course Transferable to CSU; UC
General Education: CSU Area C2; CSU Area D; IGETC Area 3B; IGETC Area 4
This course is an introduction to the study of American history from 1945 to the present day. It is an honors course that uses an intensive instructional methodology designed to challenge motivated students and cultivate advanced critical thinking skills. Particular emphasis will be placed on the role played by complex interrelationships of political, economic, social, and cultural forces in United States history after World War II, and the role played by multiple ethnic groups as well. This course is not open to students who have completed HIST 314. 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 HIST 485 and only one may be taken for credit.

HONOR 367
Introduction to Government: United States – Honors 3 Units
Same As: POLS 481
Hours: 54 hours LEC
Prerequisite: None. Enrollment Limitation: Admission to the Honors Program
Course Transferable to CSU; UC
General Education: AA/AS Area V(a); CSU Area D; CSU Area F2; IGETC Area 4
This course is an introduction to the study of American history from 1945 to the present day. It is an honors course that uses an intensive instructional methodology designed to challenge motivated students and cultivate advanced critical thinking skills. Particular emphasis will be placed on the role played by complex interrelationships of political, economic, social, and cultural forces in United States history after World War II, and the role played by multiple ethnic groups as well. This course is not open to students who have completed HIST 314. 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 HIST 485 and only one may be taken for credit.

HONOR 375
Honors College Composition 3 Units
Same As: ENGWR 480
Hours: 54 hours LEC
Prerequisite: Eligibility for ENGWR 300 or equivalent skills demonstrated through the assessment process. Students must also be eligible for admission to the Honors Program.
Enrollment Limitation: Eligibility for the Honors Program.
Course Transferable to CSU; UC
General Education: AA/AS Area I(b); CSU Area A2; IGETC Area 1A
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. (C-ID ENGL 100)

HONOR 378
Honors - Literature Adapted into Film 3 Units
Same As: ENGLT 488
Hours: 54 hours LEC
Prerequisite: ENGWR 101 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Advisory: ENGRD 110, or equivalent skills demonstrated through the assessment process.
Enrollment Limitation: Admission to the Honors Program
Course Transferable to CSU; UC
General Education: AA/AS Area I(b); AA/AS Area I; CSU Area C2; IGETC Area 3A; IGETC Area 3B
This course analyzes the process, challenges, failures, and successes of adapting literary and stage material into film. It compares faithful and unfaithful adaptations through reading the original texts and viewing the adapted films with an awareness of their historical and cultural contexts. The course examines intention, creative distinctions, as well as limits and strengths of each medium. This course requires at least one research essay proposing and justifying details for an adaptation and including appropriate MLA documentation. This course is the same as ENGLT 488. This course, under either name, may be taken one time for credit.
**HONOR 385**  
Honors Seminar in Genetics  
3 Units  
*Same As: BIOL 485*  
*Hours: 54 hours LEC*  
*Prerequisite: None.*  
*Course Transferable to CSU; UC*  
*General Education: AA/AS Area IV; CSU Area B2; IGETC Area 5B*

This course offers honors students the opportunity to study, critique, and discuss advanced topics in genetics such as genetically modified foods, whole-genome rapid sequencing, gene therapies for human disease, and a variety of reproductive technologies. Furthermore, 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. Students will engage with each other to discuss ethical, legal and social issues during class discussions, and analyze scientific literature in written reports. 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 485. This course, under either name, may be taken a total of one time for credit.

**HONOR 391**  
Honors Seminar in Mathematics - Introduction to Mathematical Proof  
1 Unit  
*Same As: MATH 483*  
*Hours: 18 hours LEC*  
*Prerequisite: MATH 370 with a grade of “C” or better*  
*Course Transferable to CSU; UC*

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*  
*Hours: 18 hours LEC*  
*Prerequisite: MATH 370 with a grade of “C” or better*  
*Course Transferable to CSU; UC*

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 393**  
Introduction to Probability and Statistics - Honors  
4 Units  
*Same As: STAT 480*  
*Hours: 72 hours LEC*  
*Prerequisite: MATH 120 or 125 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.*  
*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 CSU; UC*  
*General Education: AA/AS Area ll(b); CSU Area B4; IGETC Area 2*

This course is an introduction to probability and statistics designed for students in the honors program. 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 statistical capabilities may be required for this class. This honors section uses an intensive instructional methodology designed to challenge motivated students. This course is the same as STAT 480 and only one may be taken for credit.

**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*
DEGREES
A.S.—Horticulture, Sustainable Landscape

CERTIFICATES OF ACHIEVEMENT
Horticulture, Landscape Technology
Horticulture, Nursery Operations
Horticulture, Sustainable Landscape and Irrigation Systems Design

CERTIFICATES OF PROFICIENCY
Horticulture, 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

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

ASSOCIATE DEGREES
A.S. in Horticulture, Sustainable Landscape
CODE #1146

A variety of professional career opportunities are available to those who wish to provide professional landscape installation and/or support services. Landscapers design, install, and maintain private and public outdoor spaces in which people live, work, and play. The Sustainable Landscape A.S. Degree concentrates on those courses that develop the knowledge, skills, and attitudes essential to creating, constructing, and maintaining functional and sustainable landscapes, green spaces, and irrigation systems, as well as for careers in arboriculture, and landscape material, supply, and specialty services. 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, tree care, integrated pest management, licensing and certification, and horticultural business practices.

DEGREE REQUIREMENTS ......................................................... UNITS
HORT 105 Pest Control Licensing or Certification ..................2
HORT 300 Introduction to Horticulture .................................3
HORT 302 or PLTS 310 Solis, Soil Management, and Plant Nutrition (3) ......3
HORT 303 or PLTS 332 Integrated Pest Management (3) .......3

A minimum of 6 units from the following:
HORT 305 Plant Identification-Fall Selections (3)
HORT 306 Plant Identification-Spring Selections (3)
HORT 307 Plant Identification - Sustainable and CA Native Selections (3)
HORT 320 Sustainable Landscape Construction ..................3
HORT 324 Sustainable Landscape Maintenance (3) .............3
HORT 340 Landscape and Irrigation Graphics and Design ........3
HORT 350 Landscape Irrigation ............................................3
HORT 351 Drip and Subsurface Irrigation .............................2
HORT 353 Sustainable Water Management ........................3
HORT 360 Introduction to Tree Care and Urban Forestry ..........3

A minimum of 2 units from the following:
HORT 498 Work Experience in Horticulture (1 - 4)

Total Units: ........................................................................39

1 Horticulture 100 at American River College meets the Hort 303 course requirement.
2 Horticulture 322 at American River College meets the Hort 340 course requirement.

– Continued on next page –
Suggested Electives:
ACCT 101, BUS 310, 330
ECON 302
HORT 498
POLS 301

Associate in Science Degree
The Horticulture, Sustainable Landscape Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

A.S. in General Agriculture
See page 267

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.

CERTIFICATE REQUIREMENTS .............................................. 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
A minimum of 6 units from the following:
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 320 Architectural Design Technology - Building Information Modeling (BIM) I (3)
ADT 322 Architectural Design Technology - Building Information Modeling (BIM) II (3)
BIOL 350 Environmental Biology (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: ..................................................................................................................... 12

CERTIFICATE OF PROFICIENCY
Horticulture, Sustainable Irrigation and Water Management Technology Certificate
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 that are compliant with current California state and local ordinances. The required courses are designed to develop a strong foundational understanding of basic botany and plant growth requirements, and provide advanced education and training in sound principles of soil/water relationship testing and evaluation, soil development and management, proper sprinkler and drip irrigation design, irrigation systems troubleshooting and retrofitting, and irrigation systems management for water conservation. Students will have the opportunity to become QWEL (Qualified Water Efficient Landscaper) certified through this certificate program. QWEL is an EPA WaterSense Partnership program.

CERTIFICATE REQUIREMENTS .............................................. UNITS
HORT 300 Introduction to Horticulture .................................................................................................................. 3
HORT 302 Soils, Soil Management, and Plant Nutrition (3) ................................................................................. 3
or PLTS 310 Soils, Soil Management, and Plant Nutrition (3) ............................................................................. 3
HORT 350 Landscape Irrigation .......................................................................................................................... 3
HORT 351 Drip and Subsurface Irrigation ............................................................................................................. 2
HORT 353 Sustainable Water Management ......................................................................................................... 3
A minimum of 2 units from the following:
HORT 498 Work Experience in Horticulture (1 - 4)
Total Units: ................................................................................................................................................. 16

CERTIFICATE
Horticulture, Sustainable Landscape Design Certificate
CODE #1970

The certificate in Sustainable Landscape 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.

CERTIFICATE REQUIREMENTS .............................................. UNITS
HORT 300 Introduction to Horticulture .................................................................................................................. 3
HORT 302 Soils, Soil Management, and Plant Nutrition (3) ................................................................................. 3
or PLTS 310 Soils, Soil Management, and Plant Nutrition (3) ............................................................................. 3
HORT 303 Integrated Pest Management (3) ........................................................................................................... 3
or PLTS 332 Integrated Pest Management (3) ....................................................................................................... 3
HORT 305 Plant Identification-Fall Selections (3) ................................................................................................. 3
or HORT 306 Plant Identification-Spring Selections (3) ......................................................................................... 3
or HORT 307 Plant Identification - Sustainable and CA Native Selections (3)
HORT 340 Landscape and Irrigation Graphics and Design .................................................................................. 3
HORT 350 Landscape Irrigation .......................................................................................................................... 3
HORT 351 Drip and Subsurface Irrigation ............................................................................................................. 2
A minimum of 2 units from the following:
HORT 498 Work Experience in Horticulture (1 - 4)
Total Units: ................................................................................................................................................. 22

1 Horticulture 100 at American River College meets the HORT 303 course requirement.
2 Horticulture 322 at American River College meets the HORT 340 course requirement.
CERTIFICATE
Horticulture, Sustainable Landscape Certificate
CODE #1146

A variety of professional career opportunities are available to those who wish to provide professional landscape installation and/or support services. Landscapers design, install, and maintain private and public outdoor spaces in which people live, work, and play. The Sustainable Landscape Certificate 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, as well as careers in tree care, and landscape material, supply, and specialty services. 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 maintenance, tree care, and integrated pest management.

CERTIFICATE REQUIREMENTS .................................................................. UNITS
HORT 300 Introduction to Horticulture ............................................... 3
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 305 Plant Identification-Fall Selections (3) ............................. 3
or HORT 306 Plant Identification-Spring Selections (3)
or HORT 307 Plant Identification - Sustainable and CA Native Selections (3)
HORT 320 Sustainable Landscape Construction (3) .................. 3
or HORT 324 Sustainable Landscape Maintenance (3)
or HORT 360 Introduction to Tree Care and Urban Forestry (3)
HORT 350 Landscape Irrigation ............................................... 3
A minimum of 2 units from the following:
HORT 498 Work Experience in Horticulture (1 - 4)
Total Units: .......................................................................................... 20

1 Horticulture 100 at American River College meets the Hort 303 course requirement.

CERTIFICATE OF PROFICIENCY
Plant-Based Nutrition and Sustainable Agriculture Certificate
CODE #1959

The Plant-Based Nutrition and Sustainable Agriculture Certificate Program brings farm-to-fork into the classroom. It provides the science that supports the benefits of whole plant-based foods to the health of the individual as well as the environment. Students will gain knowledge in the function of plant-based foods towards the treatment and prevention of chronic diseases. The program addresses the environmental and social concerns with strategies and principles of sustainable agriculture. Students will master the theories and skills of plant-based food preparation bringing the food to the fork and into everyday food choices.

Contact the CRC Nutrition and Foods, Horticulture, and/or Ag Counselor regarding transferable courses.

CERTIFICATE REQUIREMENTS ....................................................... UNITS
NUTRI 303 Plant-Based Nutrition ....................................................... 3
NUTRI 331 Plant-Based Food Principles and Preparation ............ 3
HORT 313 Sustainable Agriculture ............................................... 3
Total Units: .......................................................................................... 9
## HORTICULTURE (HORT)

### HORT 105
**Pest Control Licensing or Certification**  
2 Units  
**Hours:** 36 hours LEC  
**Prerequisite:** None.  
**Advisory:** HORT 300, HORT 303, PLTS 300, or PLTS 332  
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**  
.5-4 Units  
**Hours:** 18 hours LEC; 54 hours LAB  
**Prerequisite:** None.

### HORT 300
**Introduction to Horticulture**  
3 Units  
**Hours:** 54 hours LEC  
**Prerequisite:** None.

**Course Transferable to CSU; UC**  
**General Education:** AA/AS Area IV

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 302
**Soils, Soil Management, and Plant Nutrition**  
3 Units  
**Same As:** PLTS 310  
**Hours:** 36 hours LEC; 54 hours LAB  
**Prerequisite:** None.  
**Advisory:** HORT 300 and PLTS 300  
**Course Transferable to CSU; UC**  
**General Education:** AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C

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. (C-ID AG - PS 128L)

### HORT 303
**Integrated Pest Management**  
3 Units  
**Same As:** PLTS 332  
**Hours:** 36 hours LEC; 54 hours LAB  
**Prerequisite:** None.  
**Advisory:** HORT 300 and PLTS 300  
**Course Transferable to CSU**

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 305
**Plant Identification-Fall Selections**  
3 Units  
**Hours:** 36 hours LEC; 54 hours LAB  
**Prerequisite:** None.  
**Advisory:** HORT 300  
**Course Transferable to CSU; UC** (HORT 305 and 306 combined: maximum transfer credit is one course)

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. Field trips may be required. (C-ID AG - EH 112L)

### HORT 306
**Plant Identification-Spring Selections**  
3 Units  
**Hours:** 36 hours LEC; 54 hours LAB  
**Prerequisite:** None.  
**Advisory:** HORT 300  
**Course Transferable to CSU; UC** (HORT 305 and 306 combined: maximum transfer credit is one course)

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 spring and/or summer seasons. Field trips may be required. (C-ID AG - EH 108L)

### HORT 307
**Plant Identification - Sustainable and CA Native Selections**  
3 Units  
**Hours:** 36 hours LEC; 54 hours LAB  
**Prerequisite:** None.  
**Advisory:** HORT 300  
**Course Transferable to CSU; UC**

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. Field trips may be required.
HORT 312
Plant Propagation 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: HORT 300
Course Transferable to CSU
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. (C-ID AG - EH 116L)

HORT 313
Sustainable Agriculture 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area IV
This course provides a comprehensive study of sustainable agriculture that addresses many environmental and social concerns while providing innovative and economically viable techniques for growers. It integrates the theoretical aspects of sustainable agriculture, principles and practices with field-based laboratory and participatory learning of sustainable agriculture practices. This course may include field trips.

HORT 320
Sustainable Landscape Construction 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: HORT 300
Course Transferable to CSU
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. Field trips may be required.

HORT 324
Sustainable Landscape Maintenance 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: HORT 300 with a grade of “C” or better
Course Transferable to CSU
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: HORT 300 with a grade of “C” or better
Advisory: HORT 305, 306, or 307
Course Transferable to CSU
This course is the study of technical drafting skills and freehand graphics, including line quality, lettering, and organization of the design space as it relates to landscape and irrigation design. It includes ‘hand drafting techniques’, plant database software, introduction to Computer-Aided Drafting and Design (CADD) for landscape, and the use of a variety of graphics skills and media. Irrigation design for landscapes studies water hydraulics, irrigation equipment, including irrigation heads, pipes, pumps, controllers and valves, and water conservation. The course includes preparing landscape and irrigation plans, plan presentation, and reprographics. Field trips may be required.

HORT 350
Landscape Irrigation 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: HORT 300 and 340; Hort 322 from ARC with a grade of “C” or better satisfies the Hort 340 advisory.
Course Transferable to CSU
This course prepares students to design, install and maintain water efficient landscape irrigation systems. Topics include current California State water use regulations and ordinances, water supply, basic hydraulics, component identification and terminology, system layout, pipe sizing, water application devices, valves, and controllers. Students can earn QWEL (Qualified Water Efficient Landscaper) certification by achieving a passing score on the final exam. (Minimum passing score will be announced in class). Field trips may be required.

HORT 351
Drip and Subsurface Irrigation 2 Units
Hours: 27 hours LEC; 27 hours LAB
Prerequisite: None.
Advisory: HORT 300, 340, and 350
Course Transferable to CSU
This course prepares students to design, install and maintain water efficient, 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 353
Sustainable Water Management 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: HORT 350 with a grade of “C” or better; Hort 105 from ARC with a grade of “C” or better satisfies the Hort 350 prerequisite. Advisory: HORT 300
Course Transferable to CSU
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. Students can earn QWEL (Qualified Water Efficient Landscaper) certification by achieving a passing score on the final exam. (Minimum passing score will be announced in class). Field trips may be required.

HORT 360
Introduction to Tree Care and Urban Forestry 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None. Advisory: HORT 300 with a grade of “C” or better
Course Transferable to CSU
This course is an introductory study and application of the principles and practices of tree care and urban forestry. This course will focus on tree biology, tree identification, plant health care, soils, plant nutrition, planting, worker safety, climbing, pruning, and the safe and effective use of tree-care tools and equipment. This course prepares the student to obtain a Certified Arborist designation through the International Society of Arboriculture. Field trips may be required.

HORT 495
Independent Studies in Horticulture 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Hours: 60 - 300 hours LAB
Prerequisite: None. 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
General Education: AA/AS Area III(b)
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 lifelong 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 0.5 - 1 Unit
Hours: 27 - 54 hours LAB
Prerequisite: None.
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
Hours: 54 hours LEC
Prerequisite: None.
General Education: AA/AS Area III(b)
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 0.25 - 1 Unit
Hours: 4.5 - 18 hours LEC
Prerequisite: None.
General Education: AA/AS Area III(b)
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
Hours: 18 hours LEC
Prerequisite: None.
General Education: AA/AS Area III(b)
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
Hours: 18 hours LEC
Prerequisite: None.
General Education: AA/AS Area III(b)
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 310
College Success 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGRD 110 and ENGWR 101
Course Transferable to CSU; UC
General Education: AA/AS Area III(b); CSU Area E1
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. Career and/or Learning Styles assessments may be required, and a field trip may be required.

HCD 320
Skills for Online Student Success 1 Unit
Hours: 18 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 18 hours LEC
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area III(b)
This course is designed to help students create a job search portfolio for their internship or job search and to assist students in developing successful job search strategies. Through assignments, practice interviews and in-class activities, students will create and finalize necessary documents for a job search portfolio and participate in a series of mock interviews.

HCD 346
Career and Workforce Skills 1 Unit
Hours: 18 hours LEC
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area III(b)
This course provides students with opportunities to develop marketable skills in preparation for employment and assists students in learning about the world of work. Course content includes understanding the application of education to the workforce, developing workplace skills and competencies. 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
Hours: 36 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
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.
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

ASSOCIATE DEGREES
A.A. in Chemical Dependency Studies Degree
CODE #1988

The program in Chemical Dependency Studies centers around the specific skills and abilities necessary to provide comprehensive drug and alcohol counseling. Course work include the twelve counselor core function applications in addiction screening, intake, assessment, orientation, counseling, crisis intervention, consultation, client education, client rights, confidentiality, professional ethics and reports and record keeping.

DEGREE REQUIREMENTS .......................................................... UNITS
HSER 300  Introduction to Human Services ......................... 3
HSER 302  Introduction to Psychology of Human Relations ...... 3
HSER 340  Introduction to Chemical Dependency ................. 3
HSER 341  Physiology and Pharmacology: Alcohol & Other Drugs ........................................ 3
HSER 342  Alcoholism: Intervention, Treatment & Recovery..... 3
HSER 350  Employment Skills in Human Services ............... 3
HSER 360  Techniques of Interviewing and Counseling ........ 3
HSER 362  Practices in Human Services ................................ 3
HSER 364  Techniques of Group Counseling.......................... 4
PSYC 300  General Principles ................................................. 3
HSER 498  Work Experience in Human Services .............. 1 - 4
or PSYC 368  Cross Cultural Psychology (3) ....................... 3
or or SOC 321  Race, Ethnicity and Inequality in the United States (3)
PSYC 340  Abnormal Behavior ............................................. 3

Total Units: ........................................................................ 38 - 41

1 Students must complete a minimum of 255 internship hours for HSER 498.

Associate in Arts Degree
The Chemical Dependency Studies Degree Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
A.A. in Human Services, General
CODE #1152

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.

DEGREE REQUIREMENTS .................................................. 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

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: .......................................................... 29 - 32

1 Students must complete a minimum of 108 internship hours for HSER 498.

Suggested Electives:
BUS 100, 310
CISA 305, 315, 340
COMM 301, 325
HEED 300
PSYC 330
SOC 301, 310

Associate in Arts Degree
The Human Services, General Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Chemical Dependency Studies Certificate
CODE #1988

The program in Chemical Dependency Studies centers around the specific skills and abilities necessary to provide comprehensive drug and alcohol counseling. Course work include the twelve counselor core function applications in addiction screening, intake, assessment, orientation, counseling, crisis intervention, consultation, client education, client rights, confidentiality, professional ethics and reports and record keeping.

CERTIFICATE REQUIREMENTS ......................................... UNITS
HSER 300 Introduction to Human Services ......................... 3
HSER 302 Introduction to Psychology of Human Relations ..3
HSER 340 Introduction to Chemical Dependency ............... 3
HSER 341 Physiology and Pharmacology:
   Alcohol & Other Drugs ............................................. 3
HSER 342 Alcoholism: Intervention, Treatment & Recovery ..3
HSER 350 Employment Skills in Human Services ............... 3
HSER 360 Techniques of Interviewing and Counseling ....... 3
HSER 362 Practices in Human Services ............................. 3
HSER 364 Techniques of Group Counseling ........................ 4
HSER 498 Work Experience in Human Services .............. 1 - 4
PSYC 300 General Principles .......................................... 3
PSYC 340 Abnormal Behavior .......................................... 3
PSYC 368 Cross Cultural Psychology (3) ......................... 3
or SOC 321 Race, Ethnicity and Inequality in the United States (3)

Total Units: .......................................................... 38 - 41

1 Students must complete a minimum of 255 internship hours for HSER 498.

CERTIFICATE OF ACHIEVEMENT
Human Services, General Certificate
CODE #1152

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.

This certificate is designed for persons who are seeking careers as youth group home workers, family welfare and health agency workers, county or state eligibility workers, and other para-professional positions. Completers will have a foundation in human service skills, including group counseling, client interviewing, and employment.

CERTIFICATE REQUIREMENTS ......................................... 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 362 Techniques of Group Counseling ........................ 4
PSYC 300 General Principles .......................................... 3
HSER 498 Work Experience in Human Services .............. 1 - 4

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: .......................................................... 29 - 32

1 Students must complete a minimum of 108 internship hours for HSER 498.
HUMAN SERVICES (HSER)

HSER 300
Introduction to Human Services 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGWR 300 or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area II(b); CSU Area E1
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 54 hours LEC
Prerequisite: HSER 340 with a grade of “C” or better
Course Transferable to CSU
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
Hours: 54 hours LEC
Prerequisite: HSER 341 with a grade of “C” or better
Course Transferable to CSU
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 54 hours LEC
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
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
Hours: 54 hours LEC
Prerequisite: None.
Corequisite: HSER 360 and 498
Course Transferable to CSU
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  
Hours: 54 hours LEC; 54 hours LAB  
Prerequisite: HSER 350 and 360 with grades of “C” or better  
Corequisite: HSER 362  
Course Transferable to CSU  
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  
0.5 - 4 Units  
Hours: 9 - 72 hours LEC  
Prerequisite: None.  
Course Transferable to CSU  
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  
Hours: 54 - 162 hours LAB  
Prerequisite: None.  
Course Transferable to CSU  
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  
Hours: 60 - 300 hours LAB  
Prerequisite: None.  
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  
General Education: AA/AS Area III(b)  
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.

HSER 499  
Experimental Offering in Human Services  
.5 - 4 Units  
Prerequisite: None  
Course Transferable to CSU  
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.A.—Humanities

Program Description
Humanities is the study of culture. Students in the Humanities study the arts, ideas, skills and institutions of cultures around the world. The goal of Humanities is to study the similarities and differences between cultures by interdisciplinary and holistic means. 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 Humanities. This degree offers courses that satisfy lower division General Education requirements, providing students with a solid foundation in Humanities as well as the standard prerequisites for upper division course work leading to the baccalaureate degree.

Career Opportunities
Educator Museum Curator
Government Artist
Public Relations Journalism
Law Winter

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

ASSOCIATE DEGREES
A.A. in American Studies
See page 281 for description

A.A. in Humanities

Humanities is the study of culture. This CRC major is intended for students who wish a general background in the areas of humanities or social science at the community college level. Several options are offered in specific interest areas but all are intended to give the student an interdisciplinary foundation for further study or an overview of the area chosen. Students who also wish to transfer to a four-year college should plan their programs to meet general education and lower division major requirements. All students are encouraged to consult with a counselor.

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.

DEGREE REQUIREMENTS

HUM 300 Classical Humanities ............................................. 3
HUM 310 Modern Humanities ............................................... 3
HUM 320 Asian Humanities .................................................. 3

A minimum of 3 units from the following:
HUM 301 Introduction to the Humanities (3)
HUM 324 Global Islam: Culture and Civilization (3)
HUM 331 Latin American Humanities (3)
HUM 332 American Humanities (3)
HUM 339 African American Humanities (3)
HUM 370 Women and the Creative Imagination (3)

A minimum of 9 units from the following:
ARTH 300 Introduction to Art (3)
ENGCW 400 Creative Writing (3)
ENGLT 310 English Literature I (3)
ENGLT 311 English Literature II (3)
ENGLT 320 American Literature I (3)
ENGLT 321 American Literature II (3)
ENGLT 330 African American Literature (3)
ENGLT 340 World Literature I (3)
ENGLT 341 World Literature II (3)
MUFHL 300 Introduction to Music (3)
MUFHL 310 Survey of Music History and Literature
   (Greek Antiquity to 1750) (3)
MUFHL 311 Survey of Music History and Literature
   (1750 to the present) (3)
PHIL 300 Introduction to Philosophy (3)
PHIL 310 Introduction to Ethics (3)
PHIL 320 Logic and Critical Reasoning (3)
TA 300 Introduction to the Theatre (3)

Total Units: 21

The Humanities Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
### HUMANITIES (HUM)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Hours</th>
<th>Prerequisite</th>
<th>Course Transferable to CSU; UC</th>
<th>General Education: AA/AS Area I, AA/AS Area VI; CSU Area C2; IGETC Area 3B</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>HUM 300</td>
<td>Classical Humanities</td>
<td>3</td>
<td>54</td>
<td>None</td>
<td></td>
<td>General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B</td>
<td>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.</td>
</tr>
<tr>
<td>HUM 301</td>
<td>Introduction to the Humanities</td>
<td>3</td>
<td>54</td>
<td>None</td>
<td></td>
<td>General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B</td>
<td>This course 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.</td>
</tr>
<tr>
<td>HUM 310</td>
<td>Modern Humanities</td>
<td>3</td>
<td>54</td>
<td>None</td>
<td></td>
<td>General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B</td>
<td>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.</td>
</tr>
<tr>
<td>HUM 320</td>
<td>Asian Humanities</td>
<td>3</td>
<td>54</td>
<td>None</td>
<td></td>
<td>General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B</td>
<td>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.</td>
</tr>
<tr>
<td>HUM 324</td>
<td>Global Islam: Culture and Civilization</td>
<td>3</td>
<td>54</td>
<td>None</td>
<td></td>
<td>General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B</td>
<td>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. Students may be required to attend a live performance or museum visit.</td>
</tr>
<tr>
<td>HUM 331</td>
<td>Latin American Humanities</td>
<td>3</td>
<td>54</td>
<td>None</td>
<td></td>
<td>General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B</td>
<td>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.</td>
</tr>
<tr>
<td>HUM 332</td>
<td>American Humanities</td>
<td>3</td>
<td>54</td>
<td>None</td>
<td></td>
<td>General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B</td>
<td>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. Students may be required to attend a live performance or museum exhibition.</td>
</tr>
<tr>
<td>HUM 339</td>
<td>African American Humanities</td>
<td>3</td>
<td>54</td>
<td>None</td>
<td></td>
<td>General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B</td>
<td>This course examines African American experience in the United States through the products of culture created by Black Americans. The course synthesizes the production of music, art, literature, politics and philosophy to understand historic and contemporary influences and experiences of African American identity and expression. Students may be required to attend and analyze at least one live performance of the arts (music, theater, dance) or museum.</td>
</tr>
<tr>
<td>HUM 370</td>
<td>Women and the Creative Imagination</td>
<td>3</td>
<td>54</td>
<td>None</td>
<td></td>
<td>General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B</td>
<td>This course examines the creative powers of women throughout the history of art from antiquity to the present. The course offers an interdisciplinary perspective on the contributions of women artists as evidenced in literature and the visual and performing arts. Using gender as the primary lens of analysis, this course seeks to uncover the broader contexts of female experience by probing the relationship women artists had to the historical periods in which they lived and worked. Students may be required to attend a live performance or museum visit.</td>
</tr>
</tbody>
</table>
HUM 495
Independent Studies in Humanities 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
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  Human Service Careers
Research  Teacher
Law  Administrator
Attorney  Historian
Foreign Service  Archivist
Social Worker  Public Relations Consultant
Employment Counselor  Probation Officer
Counselor

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
• 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

ASSOCIATE DEGREES
A.A. in Interdisciplinary Studies, American Studies
CODE #1158

DEGREE REQUIREMENTS .......................................................... UNITS
A minimum of 15 units from the following:

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<td>or SOC 300</td>
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A minimum of 6 units from the following:

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<td>or HIST 301</td>
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<td>or HUM 310</td>
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<td>or PHIL 338</td>
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<td>or PHIL 300</td>
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Total Units: .......................................................... 21

1 No more than one course from each group (e.g. no more than one History course).
2 No more than one course from each group (e.g. no more than one History course).

Associate Degree
The Interdisciplinary Studies, American Studies Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

A.A. in Interdisciplinary Studies, Ethnic Studies
CODE #1159

This CRC major is intended for students who wish a general background in the areas of humanities or social science at the community college level. Several options are offered in specific interest areas but all are intended to give the student an interdisciplinary foundation for further study or an overview of the area chosen. Students who also wish to transfer to a four-year college should plan their programs to meet general education and lower division major requirements. All students are encouraged to consult with a counselor.

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.
A.A. in Interdisciplinary Studies, Ethnic Studies

CODE #1160

This CRC major is intended for students who wish a general background in the areas of humanities or social science at the community college level. Several options are offered in specific interest areas but all are intended to give the student an interdisciplinary foundation for further study or an overview of the area chosen. Students who also wish to transfer to a four-year college should plan their programs to meet general education and lower division major requirements. All students are encouraged to consult with a counselor.

DEGREE REQUIREMENTS ................................. 1160 UNITs

A minimum of 9 units from the following:

ENGLT 330 African American Literature (3)
HIST 320 History of the United States: African-American Emphasis (3)

or HIST 321 History of the United States: African-American Emphasis (3)

A minimum of 9 units from the following:

BUS 300 Introduction to Business (3)
ENGLT 320 American Literature I (3)
or ENGLT312 American Literature II (3)
HIST 312 History of the United States (to 1865) (3)
or HIST 313 History of the United States (1865-1945) (3)
or HIST 314 Recent United States History (3)
or HIST 320 History of the United States: African-American Emphasis (3)
or HIST 321 History of the United States: African-American Emphasis (3)
or HIST 331 Women in American History (3)
HUM 332 American Humanities (3)
PHIL 350 Philosophy of Religion (3)
POLS 301 Introduction to Government: United States (3)
SOC 301 Social Problems (3)
or SOC 300 Introductory Sociology (3)

Total Units: .................................................. 21

A.A. in Interdisciplinary Studies, Humanities

CODE #1160

This CRC major is intended for students who wish a general background in the areas of humanities or social science at the community college level. Several options are offered in specific interest areas but all are intended to give the student an interdisciplinary foundation for further study or an overview of the area chosen. Students who also wish to transfer to a four-year college should plan their programs to meet general education and lower division major requirements. All students are encouraged to consult with a counselor.

DEGREE REQUIREMENTS ................................. 1160 UNITs

A minimum of 9 units from the following:

ENGLT 330 African American Literature (3)
or ENGLT 340 World Literature I (3)
or ENGLT 341 World Literature II (3)
or HUM 320 Asian Humanities (3)
or HUM 324 Global Islam: Culture and Civilization (3)
MUFHL 300 Introduction to Music (3)
or MUFHL 310 Survey of Music History and Literature (Greek Antiquity to 1750) (3)
or MUFHL 311 Survey of Music History and Literature (1750 to the present) (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: .................................................. 21

A.A. in Interdisciplinary Studies, Women's Studies

CODE #1161

This CRC major is intended for students who wish a general background in the areas of humanities or social science at the community college level. Several options are offered in specific interest areas but all are intended to give the student an interdisciplinary foundation for further study or an overview of the area chosen. Students who also wish to transfer to a four-year college should plan their programs to meet general education and lower division major requirements. All students are encouraged to consult with a counselor.

DEGREE REQUIREMENTS ................................. 1161 UNITs

A minimum of 9 units from the following:

ENGLT 360 Women in Literature (3)
or HIST 331 Women in American History (3)
or PSYC 356 Human Sexuality (3)

A minimum of 12 units from the following:

ANTH 334 Native Peoples of North America (3)
BUS 300 Introduction to Business (3)
ENGLT 310 English Literature I (3)
or ENGLT 311 English Literature II (3)
or ENGLT 321 American Literature I (3)
or ENGLT 331 Women in American History (3)
or ENGLT 330 African American Literature (3)
or ENGLT 340 World Literature I (3)
or ENGLT 341 World Literature II (3)
or ENGLT 360 Women in Literature (3)
or HIST 312 History of the United States (to 1865) (3)
or HIST 313 History of the United States (1865-1945) (3)
or HIST 314 Recent United States History (3)
or HIST 320 History of the United States: African-American Emphasis (3)
or HIST 321 History of the United States: African-American Emphasis (3)
or HIST 331 Women in American History (3)
or HIST 333 Women in American History (3)
or PSYC 356 Human Sexuality (3)
SOC 301 Social Problems (3)
or SOC 300 Introductory Sociology (3)
or HUM 332 African American Literature (3)
or HUM 333 Gender and Sexualities (3)
or MUFHL 300 Introduction to Music (3)
or MUFHL 310 Survey of Music History and Literature (Greek Antiquity to 1750) (3)
or MUFHL 311 Survey of Music History and Literature (1750 to the present) (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: .................................................. 21

1 No more than one course from each group (e.g. no more than one English course).

The Interdisciplinary Studies, Humanities Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
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 0.5 Unit
Hours: 9 hours LEC
Prerequisite: None.
Course Transferable to CSU
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 also introduces the student to MESA and to the skills needed for academic success in mathematics, computer information science, engineering, and science. This 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 311
Academic Skills for a Career in Engineering, Computer Information Science, Mathematics, Physics and Related Disciplines 0.5 Unit
Hours: 9 hours LEC
Prerequisite: None.
Advisory: INDIS 310
Course Transferable to CSU
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. This 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 0.5 Unit
Hours: 9 hours LEC
Prerequisite: None.
Advisory: INDIS 310
Course Transferable to CSU
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. This 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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I(b); CSU Area E1
This course will assist new college students in achieving academic success. Topics covered will include discipline-specific academic language and culture, the value and demands of a college education, problem solving strategies, the use of technology in education, academic integrity, campus resources and services, and life during and after college. The course will introduce students to one or more academic disciplines or areas of study, and discuss the academic and professional expectations and experiences of those disciplines.

INDIS 350
Life and Culture in Study Abroad 1 - 3 Units
Hours: 18 - 54 hours LEC
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
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 geopolitical 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
Journalism
Arts, Media & Entertainment

DEGREE
A.A.-T — Journalism for Transfer
A.A. — Journalism

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

ASSOCIATE DEGREES
A.A.-T in Journalism
CODE #1986

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.

DEGREE REQUIREMENTS ......................................................... UNITS
Core Courses:
JOUR 310 Mass Media and Society (3) ........................................ 3
or RTVF 300 Mass Media and Society (3) ................................. 3
JOUR 300 Newswriting and Reporting ....................................... 3
JOUR 410 College Media Production I ...................................... 3
Elective List A - A minimum of 3 units from the following:
JOUR 351 Public Relations Writing and Media Techniques (3)
JOUR 411 College Media Production II (3)
Elective List B - A minimum of 6 units from the following:
JOUR 320 Race and Gender in the Media (3)
COMM 311 Argumentation and Debate (3)
COMM 363 Introduction to Communication Theory (3)
ECON 302 Principles of Macroeconomics (3)
or ECON 304 Principles of Microeconomics (3)
ENGWR 302 Advanced Composition and Critical Thinking (3)
PHOTO 302 Beginning Digital Photography (3)
POLS 301 Introduction to Government: United States (3)
POLS 302 Introduction to Government: Foreign (3)
STAT 300 Introduction to Probability and Statistics (4)
Total Units: ........................................................................ 18

Associate in Arts in Transfer Degree
The Associate in Arts in Journalism for Transfer (AA-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.
A.A. in Journalism
CODE #1058

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.

DEGREE REQUIREMENTS

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A minimum of 9 units from the following:

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<td>PHOTO 400</td>
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<td>JOUR 301</td>
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Total Units: 24

Suggested Electives:
ECON 302
ENGWR 300
PHOTO 310, 320
POLS 310

Associate in Arts Degree

The Journalism Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

JOURNALISM (JOUR)

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

JOUR 300
Newswriting and Reporting 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: Eligibility for ENGWR 300
Course Transferable to CSU
General Education: AA/AS Area II(b)
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 3 Units
Hours: 54 hours LEC
Prerequisite: JOUR 300 with a grade of “C” or better
Advisory: ENGWR 300
Course Transferable to CSU
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 3 Units
Same As: RTVF 300
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D; IGETC Area 4J
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)

JOUR 320
Race and Gender in the Media 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D3; IGETC Area 4C
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  
Hours: 36 hours LEC  
Prerequisite: None.  
Advisory: BUSTEC 302  
Course Transferable to CSU  
General Education: AA/AS Area Ill(b)  
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  
Hours: 27 hours LEC; 27 hours LAB  
Prerequisite: None.  
Advisory: JOUR 330; CISC 302 or 310; and CISA 305  
Course Transferable to CSU  
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  
Hours: 27 hours LEC; 27 hours LAB  
Prerequisite: CISA 330 or JOUR 335 with a grade of “C” or better  
Course Transferable to CSU  
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  
Hours: 54 hours LEC  
Prerequisite: ENGWR 300, ENGWR 480, HONOR 375, or JOUR 300 with a grade of “C” or better  
Course Transferable to CSU  
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  
Hours: 54 hours LEC  
Prerequisite: None.  
Course Transferable to CSU  
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  
Hours: 18 hours LEC  
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  
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 404  
Editing and Production 3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Corequisite: JOUR 405, 420, or 421  
Course Transferable to CSU  
This course includes instruction and practice in editing and designing newspapers, magazines, technical reports, and online publications. Topics include copy editing, headline writing, photo editing, page makeup and design, and production methods. Editorial writing, press ethics, and press law are also discussed.

JOUR 410  
College Media Production I 3 Units  
Hours: 36 hours LEC; 54 hours LAB  
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  
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
Hours: 36 hours LEC; 54 hours LAB
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
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: JOUR 300 and 411 with grades of “C” or better
Course Transferable to CSU
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: JOUR 412 with a grade of “C” or better
Course Transferable to CSU
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 0.5 - 3 Units
Hours: 27 - 162 hours LAB
Prerequisite: ENGW 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
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 0.5 - 3 Units
Hours: 27 - 162 hours LAB
Prerequisite: JOUR 420 with a grade of “C” or better
Corequisite: JOUR 411
Course Transferable to CSU
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 0.5 - 3 Units
Hours: 27 - 162 hours LAB
Prerequisite: JOUR 421 with a grade of “C” or better
Corequisite: JOUR 412
Course Transferable to CSU
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 0.5 - 3 Units
Hours: 27 - 162 hours LAB
Prerequisite: JOUR 422 with a grade of “C” or better
Corequisite: JOUR 413
Course Transferable to CSU
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
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
General Education: AA/AS Area III(b)
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

Health & Human Services

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 10 intercollegiate sport teams for student participation:

For Men: Baseball, Basketball, Soccer, Tennis
For Women: Basketball, Soccer, Softball, Tennis, Swimming, 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.

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 (FITNS), Dance, Aquatics, Personal Activities (PACT), Team Sports (TMAC), Intercollegiate Athletics, and Kinesiology (KINES) 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, and Sports Psychology.

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 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.

For information about the student learning outcomes for this program, see www.crc.losrios.edu/~pslo
A.A.-T. in Kinesiology

The Associate in Arts in Kinesiology for Transfer Degree (AA-T) is designed to meet common lower-division requirements for a major in Kinesiology at California State University (CSU) campuses by completion of 60 transferable semester units with a minimum 2.0 GPA, to include either the California State University General Education Breadth pattern or the Intersegmental General Education Transfer Curriculum; students must 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.

DEGREE REQUIREMENTS ..................................................UNITS
KINES 300 Introduction to Kinesiology .................................3
BIOL 430 Anatomy and Physiology ..................................5
BIOL 431 Anatomy and Physiology ..................................5
A minimum of 7 units from the following:
STAT 300 Introduction to Probability and Statistics (4) or PSYC 330 Introductory Statistics for the Behavioral Sciences (3)
CHEM 305 Introduction to Chemistry (5)
PHYS 350 General Physics (4)
A minimum of 3 units from the following:¹
FITNS 440 Swimming I (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)
TMACT 302 Soccer - Outdoor (1)
TMACT 320 Basketball (1)
TMACT 330 Volleyball (1)
Total Units: ........................................................................ 23

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 (TMACT 302, 320, 330).

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.

ASSOCIATE DEGREES
A.A. in Physical Education
CODE #1499

DEGREE REQUIREMENTS ..................................................UNITS
KINES 300 Introduction to Kinesiology .................................3
BIOL 430 Anatomy and Physiology ..................................5
BIOL 431 Anatomy and Physiology ..................................5
CHEM 305 Introduction to Chemistry (5) ..............................5

Elective:
A minimum of 6 units from the following:
BIOL 310 General Biology (4)
STAT 300 Introduction to Probability and Statistics (4)
HEED 301 Health Science (3)
NUTRI 300 Nutrition (3)
PHYS 350 General Physics (4)
KINES 301 Personal Wellness (3)
or HEED 350 Personal Wellness (3)

A minimum of 1 unit from the following:
One unit selected from: Adapted Aquatics, Adapted Physical Education, Aerobics, Basketball, Body Fitness, Dance, Golf, Lifeguard Training, Mountaineering, Softball, Swimming, Team Sports, Tennis, Volleyball, Water Polo, Weight-Training
Total Units: ........................................................................ 25

Associate in Arts Degree
The Physical Education Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
ADAPT 300
Adapted Physical Education 1 - 2 Units
Hours: 9 - 18 hours LEC; 27 - 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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
Hours: 9 hours LEC; 27 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 333
Adapted Shallow Water Aerobics 1 Unit
Hours: 9 hours LEC; 27 hours LAB
Prerequisite: None.
Advisory: Although swimming skills are not needed, it is suggested that students are comfortable in an aquatic environment.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
This class is designed for individuals who are physically challenged and uses the resistance of the water for low impact weight bearing exercise. It will be tailored to each student's individual abilities. The class will include exercises in shallow water; working on cardiovascular endurance and fitness, muscular strength and endurance as well as increase overall flexibility. Students must have a doctor's recommendation on file. No swimming skills are needed or required as students will be in shallow water and use equipment to help with flotation.

ADAPT 334
Adapted Deep Water Aerobics 1 Unit
Hours: 9 hours LEC; 27 hours LAB
Prerequisite: None.
Advisory: Although swimming skills are not necessary, it is strongly suggested that students enrolled in this course are comfortable in an aquatic environment, especially in deep water.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
This course is designed to allow students with disabilities or challenges, the opportunity to improve their overall fitness through a no-impact, non-weight bearing class in the water. In this class, cardiovascular exercises and endurance will be stressed. Additionally, due to the resistance of the water, students will improve their overall strength and flexibility.

ADAPT 336
Motor Development for the Physically Challenged 1 - 2 Units
Hours: 9 - 18 hours LEC; 27 - 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 339
Walk and Wheel 2 Units
Hours: 18 hours LEC; 54 hours LAB
Prerequisite: None.
Enrollment Limitation: A statement from a health care professional verifying the disability, contraindications, and recommended activities.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
This course is designed for students who are disabled and/or physically challenged and want to participate in a general physical education activity course. Individualized walking or wheeling programs are designed to enhance cardiovascular and cardio-respiratory endurance. The course also includes specific exercises for muscular strength, muscular endurance, and flexibility. Small group games and activities are included to promote fitness and fun.

ADAPT 495
Independent Studies in Adapted Physical Education 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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.

ADAPT 499
Experimental Offering in Adapted Physical Education .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
# DANCE (DANCE)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Hours</th>
<th>Prerequisites</th>
<th>General Education:</th>
<th>Course Transferable to CSU; UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 310</td>
<td>Jazz Dance I</td>
<td>1</td>
<td>54</td>
<td>Prerequisite: None.</td>
<td>AA/AS Area III(a); CSU Area E2</td>
<td></td>
</tr>
<tr>
<td>DANCE 312</td>
<td>Jazz Dance II</td>
<td>1</td>
<td>54</td>
<td>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.</td>
<td>AA/AS Area III(a); CSU Area E2</td>
<td></td>
</tr>
<tr>
<td>DANCE 313</td>
<td>Jazz Dance III</td>
<td>1</td>
<td>54</td>
<td>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.</td>
<td>AA/AS Area III(a); CSU Area E2</td>
<td></td>
</tr>
<tr>
<td>DANCE 314</td>
<td>Jazz Dance IV</td>
<td>1</td>
<td>54</td>
<td>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.</td>
<td>AA/AS Area III(a); CSU Area E2</td>
<td></td>
</tr>
<tr>
<td>DANCE 320</td>
<td>Ballet I</td>
<td>1</td>
<td>54</td>
<td>Prerequisite: None.</td>
<td>AA/AS Area III(a); CSU Area E2</td>
<td></td>
</tr>
<tr>
<td>DANCE 321</td>
<td>Ballet II</td>
<td>1</td>
<td>54</td>
<td>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.</td>
<td>AA/AS Area III(a); CSU Area E2</td>
<td></td>
</tr>
<tr>
<td>DANCE 330</td>
<td>Modern Dance I</td>
<td>1</td>
<td>54</td>
<td>Prerequisite: None.</td>
<td>AA/AS Area III(a); CSU Area E2</td>
<td></td>
</tr>
<tr>
<td>DANCE 332</td>
<td>Modern Dance II</td>
<td>1</td>
<td>54</td>
<td>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.</td>
<td>AA/AS Area III(a); CSU Area E2</td>
<td></td>
</tr>
</tbody>
</table>

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.

This beginning/intermediate dance class continues with 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.

This beginning/intermediate modern 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.

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.

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 recommended for students who have successfully completed Ballet I and are at a high beginner or intermediate level.

This course covers the fundamentals 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 for students with little or no previous dance training.

This course is a continuation of beginning ballet technique with the 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.

This beginning/intermediate modern dance class continues with the fundamental modern dance skills learned in the previous level. This course is for students with previous dance training.

This beginning/intermediate modern dance class continues with the fundamental modern dance skills learned in the previous level. This course is recommended for students who have successfully completed Modern Dance I or have previous dance training.
DANCE 333
Modern Dance III 1 Unit
Hours: 54 hours LAB
Prerequisite: DANCE 332 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.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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
temporary 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
Hours: 54 hours LAB
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.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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
Hours: 54 hours LAB
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.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 352
Urban Hip Hop II 1 Unit
Hours: 54 hours LAB
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.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 2 Units
Hours: 18 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E
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 2 Units
Hours: 18 hours LEC; 54 hours LAB
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.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E
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 2 Units
Hours: 18 hours LEC; 54 hours LAB
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.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E
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 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area III(a); CSU Area E
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 .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

FITNESS (FITNS)

FITNS 306
Aerobics: Cardio-Kickboxing 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E
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 310
Aquatic Fitness I 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
Although no swimming skills are needed or required, it is suggested that students are comfortable in an aquatic environment since the class will be taught in shallow and deep water.

FITNS 314
Aquatic Fitness III- Deep Water Jogging 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
No swimming skills are needed as flotation devices such as aqua joggers will be provided for deep water workouts.

FITNS 314
Aquatic Fitness III- Deep Water Jogging 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
Although no swimming skills are needed or required, it is strongly suggested that students enrolled in this class are comfortable in an aquatic environment, especially deep water.

FITNS 314
Aquatic Fitness III- Deep Water Jogging 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
This jogging/running course uses the resistance of deep water to build and/or improve muscular strength and endurance, cardiovascular fitness and increases flexibility while wearing a flotation belt to maintain a vertical position in the water. It is a fitness class for those individuals who want to improve their current fitness level with non-weight bearing exercise in the water.
FITNS 320
Body Fitness 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
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 324
Mat Pilates 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
This beginning course is a unique methodology that offers improvement in core strength, posture and flexibility. Mat Pilates is designed to work with the deepest muscles with a sequence of fundamental exercises to achieve improved balance and position control while strengthening and toning the entire body.

FITNS 326
Mat Pilates II 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Advisory: FITNS 324
Course Transferable to CSU; UC
General Education: AA/AS Area III(a) (effective Summer 2019)
This intermediate course is designed to improve core strength and overall body awareness using the unique methodology of Mat Pilates. Mat Pilates II will include a sequence of fundamental exercises with the addition of intermediate level exercises. The addition of equipment (i.e., fitness balls, resistance bands, etc.) will be introduced.

FITNS 327
Mat Pilates III 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Advisory: FITNS 324 and 326
Course Transferable to CSU; UC
General Education: CSU Area E2
This course will use Mat Pilates training for muscle groups through controlled exercises taught at an advanced level. The advanced course is designed to improve in strength, posture, flexibility, and coordination. This course will include resistance methods of training and use of equipment (i.e., fitness balls, resistance bands, etc.) to help build strength and improve mobility.

FITNS 328
Thighs, Abs, and Gluteals (TAG) 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
This course is designed to be a workout specific to the thighs, abdominal and gluteal muscles included as part of the Cross Training family of Power Sculpting and Fitness Ball. This class will include workouts using a variety of calisthenics/exercises designed to enhance muscular strength and endurance, including core strength.

FITNS 331
Boot Camp Fitness 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 339
Multi Sport Training for Fitness 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
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 348
High-Intensity Interval Training 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC

General Education: AA/AS Area III(a); CSU Area E2

This course is designed to be a physically intense and total body workout included as part of the Cross Training family of Boot Camp Fitness. This class will include workouts using running, obstacle courses, and performing a variety of calisthenics designed to enhance muscular strength and endurance used through high intensity intervals.

FITNS 352
Power Sculpting 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units)

General Education: AA/AS Area III(a); CSU Area E2

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
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC

General Education: AA/AS Area III(a); CSU Area E2

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
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC (Any or all PE activity courses combined: 4 units maximum)

General Education: AA/AS Area III(a); CSU Area E2

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
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC (Any or all PE Activity courses combined: maximum credit 4 units)

General Education: AA/AS Area III(a); CSU Area E2

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 384
Weight Training II 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Advisory: FITNS 381
Course Transferable to CSU; UC

General Education: AA/AS Area III(a) (effective Summer 2019); CSU Area E2

This physical education course is designed to stress the proper guidelines, principles and techniques of weight lifting and the development of muscular strength and endurance at an intermediate level. The students will design and implement their own weight training program.

FITNS 386
Weight Training III 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Advisory: FITNS 384 with a grade of “C” or better
Course Transferable to CSU; UC

General Education: AA/AS Area III(a) (effective Summer 2019); CSU Area E2

This physical education course is designed to stress the proper guidelines, principles and techniques of weight training and the development of muscular strength, endurance and power at an advanced level. More emphasis will be placed on free weights as the student progresses. The students will design and implement their own weight training program.

FITNS 390
Basic Yoga 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC

General Education: AA/AS Area III(a); CSU Area E2

This course in Yoga emphasizes breathing, stretching, and relaxing techniques. Yoga positions and philosophies are examined.
FITNS 393
Yoga II 1 Unit
Hours: 54 hours LAB
Prerequisite: FITNS 390 with a grade of "C" or better
Course Transferable to CSU
General Education: AA/AS Area III(a) (effective Summer 2019)
Yoga is an East Indian method of mind/body exercise designed to stretch, strengthen, and enhance muscle tone through the practice of asanas (poses) and pranayama (breathing exercises). Yoga practice plus meditation helps decrease stress and increase energy levels while improving focus, concentration, and self-realization. The variety of health benefits a yoga practice offers are: for inner harmony, balance, and overall well-being, for spiritual connection and growth; or for stretching and strengthening a variety of muscle groups involved in a yoga practice. This course is designed to assist any and all of those goals through support and guidance in a safe and nurturing learning environment. Students will be required to purchase a yoga mat.

FITNS 394
Yoga III 1 Unit
Hours: 54 hours LAB
Prerequisite: FITNS 390 or 393 with a grade of "C" or better
Course Transferable to CSU
General Education: AA/AS Area III(a) (effective Summer 2019)
This is an advanced yoga course that allows students to continue to explore and develop their yoga practice, and to learn a deeper focus for stress reduction and relaxation. This class is designed to advance the practice of the individual through stretching, strengthening, and enhancing muscle tone. This will be done through the practice of advance asanas (poses) and pranayama (breathing exercises). Yoga practice plus meditation helps decrease stress and increase energy levels while improving focus, concentration, and self-realization. Students will be required to purchase a yoga mat.

FITNS 406
Walking and Jogging 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 I 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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
Hours: 54 hours LAB
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.
Course Transferable to CSU; UC (Any or all PE activity courses combined: maximum credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
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.

FITNS 443
Swimming IV 1 Unit
Hours: 54 hours LAB
Prerequisite: FITNS 442 with a grade of "C" or better; Students must demonstrate the ability to swim in deep water and possess, at minimum, intermediate swimming skills using correct stroke mechanics and technique.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
This swim class is for advanced intermediate swimmers who want to learn or improve proper training technique specific to the four competitive strokes. Students will also develop or refine underwater efficiency related to increasing speed during entry into the water, turning and breakouts for all of the competitive strokes (free, back, breast and fly). Advanced training protocols, drills and workouts will be used.

FITNS 444
Swimming V 1 Unit
Hours: 54 hours LAB
Prerequisite: FITNS 443 with a grade of "C" or better; Students must demonstrate the ability to swim in deep water and possess, at minimum, intermediate swimming skills using correct stroke mechanics and technique.
Course Transferable to CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
This swimming class emphasizes improvement in aerobic fitness. This is a self-paced overload method of training using a workout approach. Stroke efficiency, aerobic fitness, and personal improvement will be emphasized.
FITNS 495
Independent Studies in Fitness 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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.

FITNS 499
Experimental Offering in Fitness .5-4 Units
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area III(a); CSU Area E
See UC Limitations & Counselor
Hours: 54 hours LEC; 54 hours LAB

KINESIOLOGY (KINES)

KINES 300
Introduction to Kinesiology 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(b); CSU Area E1
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area III(b); CSU Area E1
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 308
Women in Sport 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
This course examines the relationship between women and sport, primarily in the United States, from multiple perspectives. Consideration is given to the cultural, economic, educational, legal, physiological and social influences on women in sport. Situating the ever-evolving roles that women assume in sport within a historical context, emphasis is placed on using the past to advise the present and effect change in the future. The course covers four broad areas: women’s sport in historical context; the benefits and risks of participating in sport and physical activity; women, sport and social location; and women in the sport industry.

KINES 416
Psychology of Sport 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 101 with a grade of “C” or better
Course Transferable to CSU
General Education: AA/AS Area V(b); AA/AS Area III(b); CSU Area D
This course will explore current and historical concepts, theories, and techniques of sport and fitness psychology and the role these concepts play in the achievement of optimal performance in sports and in life.

KINES 460
Sport in Society 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b)
This course is an introduction to the examination of sport in contemporary society. The course analyzes sport as a social institution and examines sports interaction with politics, economics, education, religion, gender, race, media, and ethics.

KINES 495
Independent Studies in Physical Education Theory 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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

Hours: 60 - 300 hours LAB

Prerequisite: None.

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

General Education: AA/AS Area III(a)

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 Theory** .5-4 Units

Prerequisite: None

Course Transferable to CSU

See UC Limitations & Counselor

Hours: 18 hours LEC; 54 hours LAB

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**PERSONAL ACTIVITIES (PACT)**

**PACT 310**

**Badminton I** 1 Unit

Hours: 54 hours LAB

Prerequisite: None.

Course Transferable to CSU; UC (Any and all PE Activity courses combined: maximum transfer credit 4 units)

General Education: AA/AS Area III(a); CSU Area E2

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 311**

**Badminton II** 1 Unit

Hours: 54 hours LAB

Prerequisite: None.

Course Transferable to CSU; UC

General Education: AA/AS Area III(a); CSU Area E2

This course provides instruction in intermediate skills, techniques, and rules of badminton. It emphasizes skill and technique development beyond that of a beginning player, as well as intermediate strategies for singles and doubles.

**PACT 390**

**Tennis I** 1 Unit

Hours: 54 hours LAB

Prerequisite: None.

Course Transferable to CSU; UC (All PE Activity courses combined: maximum transfer credit 4 units)

General Education: AA/AS Area III(a); CSU Area E2

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.

**PACT 391**

**Tennis II** 1 Unit

Hours: 54 hours LAB

Prerequisite: None.

Advisory: PACT 390 with a grade of “C” or better; Tennis II students should have some playing experience and basic tennis knowledge and skills.

Course Transferable to CSU; UC

This course reviews basic fundamentals, techniques, rules, and social courtesies of tennis. Intermediate players are encouraged to take this course.

**PACT 393**

**Tennis III** 1 Unit

Hours: 54 hours LAB

Prerequisite: None.

Advisory: PACT 391 with a grade of “C” or better; Tennis III students are recommended to have significant experience, preferably at the high school varsity level.

Course Transferable to CSU; UC

Tennis III focuses on improving and refining the competitive physical and mental skills and techniques of the sport. Particular attention will be given to the strategic development of the overall player while refining racket strokes that set up and finish points. Hitting patterns, serving placement, and tactical movement will also be introduced and developed.

**PACT 395**

**Independent Studies in Personal Activity** 1 - 3 Units

Hours: 54 - 162 hours LAB

Prerequisite: None.

Course Transferable to CSU; UC

General Education: AA/AS Area III(a); CSU Area E2

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 399**

**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
Hours: 175 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 0.5 - 3 Units
Hours: 27 - 162 hours LAB
Prerequisite: None.
Enrollment Limitation: It is advised that students taking this course have played 2 years of high school varsity baseball.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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, plyometric jump training, 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 303
Pre-Season Conditioning for Baseball 0.5 - 3 Units
Hours: 27 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC (Any and all PE Activity courses: combined maximum transfer credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
This course is designed to optimize sports performance and reduce risk of injury for the pre-season intercollegiate athlete in the sport of baseball. Course content includes sport-specific skill development, sport-specific strength training, cardiovascular conditioning, agility work, plyometric training, speed training, and flexibility exercises. This course designed to prepare students for participation in intercollegiate competition and may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

SPORT 311
Basketball, Intercollegiate-Men, Fall 1.5 Units
Hours: 85 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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
Hours: 90 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 0.5 - 3 Units
Hours: 27 - 162 hours LAB
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.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 314
Pre-Season Conditioning for Basketball 0.5 - 3 Units
Hours: 27 - 162 hours LAB
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.
Course Transferable to CSU; UC (Any and all PE Activity courses: combined maximum transfer credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
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
Hours: 85 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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-Men, Spring 1.5 Units
Hours: 90 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 318
Post-Season Conditioning for Basketball 0.5 - 3 Units
Hours: 27 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
This course is designed to increase sport performance and overall understanding of women's intercollegiate basketball concepts and strategic philosophies. Course content will include: collegiate level basketball-specific skill development, collegiate level offensive and defensive concepts, team specific basketball fundamentals, team specific drills for individual improvement and sport specific agility work, plyometrics and speed training.

SPORT 350
Soccer, Intercollegiate-Men 3 Units
Hours: 175 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
This course covers off-season training and conditioning skills and techniques specific for intercollegiate soccer. Topics include skill development, strength training, cardiovascular conditioning, and speed training. Students will need to provide themselves with appropriate soccer attire, soccer cleats, and shin guards. This course may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

SPORT 352
Off-Season Conditioning for Women's Soccer 0.5 - 3 Units
Hours: 27 - 162 hours LAB
Prerequisite: None.
Enrollment Limitation: The student must demonstrate intercollegiate athletic soccer skills as determined by a try-out conducted by the coaching staff to remain in the course.
Course Transferable to CSU; UC (All PE Activity courses: combined maximum transfer credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
This course is designed to increase sport performance and overall understanding of intercollegiate soccer concepts and strategic philosophies. Course content will include: collegiate level soccer-specific skill development, collegiate level offensive and defensive concepts, team specific soccer fundamentals, team specific drills for individual improvement and sport specific agility work, plyometrics and speed training. This course is designed to prepare students for intercollegiate soccer competition and may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

SPORT 355
Soccer, Intercollegiate-Women 3 Units
Hours: 175 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 357
Pre-Season Conditioning For Women's Soccer 0.5 - 3 Units
Hours: 27 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC (All PE Activity courses: combined maximum transfer credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
This course is designed to increase sport performance and overall understanding of intercollegiate soccer concepts and strategic philosophies. Course content will include: collegiate level soccer-specific skill development, collegiate level offensive and defensive concepts, team specific soccer fundamentals, team specific drills for individual improvement and sport specific agility work, plyometrics and speed training. This course is designed to prepare students for intercollegiate soccer competition and may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

SPORT 358
Pre-Season Conditioning For Men's Soccer 0.5 - 3 Units
Hours: 27 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC (All PE activity courses combined: maximum credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
This course is designed to increase sport performance and overall understanding of intercollegiate soccer concepts and strategic philosophies. Course content will include: collegiate level soccer-specific skill development, collegiate level offensive and defensive concepts, team specific soccer fundamentals, team specific drills for individual improvement and sport specific agility work, plyometrics and speed training. This course may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.
SPORT 365
Softball, Intercollegiate-Women 3 Units
Hours: 175 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 366
Off Season Conditioning for Softball 0.5 - 3 Units
Hours: 54 - 162 hours LAB
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. It is advised that athletes taking this course have participated at the varsity level in high school or competed on a summer travel ball team.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
This course covers fundamentals, rules, and strategy tactics with an emphasis on a fitness component for the sport of softball. It also offers a dry-land 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 368
Pre-Season Conditioning for Softball 0.5 Units
Hours: 27 hours LAB
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. It is advised that athletes taking this course have participated at the varsity level in high school or competed on a summer travel ball team.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
This course is a preparation for the competitive swimming and dive intercollegiate season. It also offers a dry-land training component for peak performance. This course is designed to prepare students for intercollegiate swim and dive competition. This course is designed to prepare students for intercollegiate competition and may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility. The participant must adhere to CCCAA eligibility requirements.

SPORT 375
Swimming and Diving, Intercollegiate-Women 3 Units
Hours: 175 hours LAB
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.
Course Transferable to CSU; UC (All PE Activity courses: combined maximum transfer credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
This is an advanced swimming and diving activity course that provides competition with other community college teams. Fundamentals, rules, team strategy, and aquatic skills appropriate to intercollegiate athletic competition are expected of competitors. This course is designed to prepare students for intercollegiate competition and may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

SPORT 376
Off Season Swim & Dive 0.5 - 3 Units
Hours: 27 - 162 hours LAB
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.
Course Transferable to CSU; UC (All PE Activity courses: combined maximum transfer credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
This course combines basic skills and stroke technique with an emphasis on a fitness component for the sport of swim and dive. It also offers a dry-land training component for peak performance. This course is designed to prepare students for intercollegiate swim and dive competition. This course is designed to prepare students for intercollegiate competition and may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility. The participant must adhere to CCCAA eligibility requirements.

SPORT 377
Pre-Season Conditioning Swim & Dive 0.5 - 3 Units
Hours: 27 - 162 hours LAB
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.
Course Transferable to CSU; UC (All PE Activity courses: combined maximum transfer credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
This course is a preparation for the competitive swimming and dive intercollegiate season. It also offers a dry-land and weight training components for peak performance. This course is designed to prepare students for intercollegiate competition and may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility. The participant must adhere to CCCAA eligibility requirements.

SPORT 380
Tennis, Intercollegiate-Men 3 Units
Hours: 175 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC (All PE Activity courses: combined maximum transfer credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
This course covers fundamentals, rules, and individual and/or team strategy appropriate to intercollegiate athletic competition in tennis. It may be repeated a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

SPORT 385
Tennis, Intercollegiate-Women 3 Units
Hours: 175 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC (All PE Activity courses: combined maximum transfer credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
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 386
Off Season Conditioning for Tennis 0.5 - 3 Units
Hours: 27 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 403
Pre-Season Conditioning for Volleyball 0.5 - 3 Units
Hours: 27 - 162 hours LAB
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. It is advised that athletes taking this course have participated at the varsity level in high school or competed on a club volleyball team.
Course Transferable to CSU; UC (All PE Activity courses: combined maximum transfer credit, 4 units)
General Education: AA/AS Area III(a); CSU Area E2
This course involves a combination of skill development and tactical strategies with an emphasis on a fitness component for the sport of volleyball. The course will also offer a mental training component for peak performance. This course is designed to prepare students for intercollegiate volleyball competition and may be taken a maximum of four times to meet California Community College Athletic Association requirements for eligibility.

SPORT 405
Volleyball, Intercollegiate-Women 3 Units
Hours: 175 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 0.5 - 3 Units
Hours: 27 - 162 hours LAB
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.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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, plyometric jump training, 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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB

TEAM ACTIVITIES (TMACT)

TMACT 300
Soccer, Indoor 1 Unit
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
The purpose of this course is to provide the student with an intermediate 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
Hours: 54 hours LAB
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.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
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 defense, 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
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(a); CSU Area E2
The purpose of this course is to provide the student with an intermediate 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
*Hours: 54 hours LAB*
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.
**Course Transferable to CSU; UC**
*General Education: AA/AS Area III(a); CSU Area E2*
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
*Hours: 54 hours LAB*
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.
**Course Transferable to CSU; UC**
*General Education: AA/AS Area III(a); CSU Area E2*
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
*Hours: 54 hours LAB*
Prerequisite: None.
**Course Transferable to CSU; UC**
*General Education: AA/AS Area III(a); CSU Area E2*
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 321
**Basketball II** 1 Unit
*Hours: 54 hours LAB*
Prerequisite: None.
Advisory: TMACT 320
**Course Transferable to CSU; UC**
*General Education: AA/AS Area III(a); CSU Area E2*
This is a physical education course that covers a complete review of the intermediate fundamentals, tactics, rules, and systems of play. The student will develop a better understanding of how to play competitive basketball in a team setting.

### TMACT 322
**Basketball III** 1 Unit
*Hours: 54 hours LAB*
Prerequisite: None.
Advisory: TMACT 321; Advanced level basketball students must demonstrate a post-intermediate level of basketball skill and comprehension to be considered for enrollment in this advanced basketball course.
**Course Transferable to CSU; UC**
*General Education: AA/AS Area III(a); CSU Area E2*
This is a competitive physical education basketball course. This course will cover the basic as well as advanced fundamentals and skills of basketball, in addition to basic strategies, rules, and systems of competitive play. This course is designed to enhance the students comprehension and ability.

### TMACT 323
**Basketball IV** 1 Unit
*Hours: 54 hours LAB*
Prerequisite: None.
Advisory: TMACT 321; Advanced level basketball students must demonstrate a post-intermediate level of basketball skill and comprehension to be considered for enrollment in this advanced basketball course.
**Course Transferable to CSU; UC**
*General Education: AA/AS Area III(a); CSU Area E2*
This is an advanced basketball course. Instruction, demonstration, and participation will provide the student with knowledge of tournament, and bracketed style play for basketball at an advanced level. This course will focus on 2 on 2, 3 on 3, and 5 on 5 tournament style competition.

### TMACT 330
**Volleyball** 1 Unit
*Hours: 54 hours LAB*
Prerequisite: None.
**Course Transferable to CSU; UC**
*General Education: AA/AS Area III(a); CSU Area E2*
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 331
**Volleyball II** 1 Unit
*Hours: 54 hours LAB*
Prerequisite: None.
Advisory: TMACT 330; Intermediate volleyball students should have some playing experience and basic volleyball knowledge and skills.
**Course Transferable to CSU; UC**
*General Education: AA/AS Area III(a); CSU Area E2*
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  
Hours: 54 hours LAB  
Prerequisite: None.  
Advisory: TMACT 331; advanced volleyball students are recommended to have significant experience, preferably at the high school varsity level.  
Course Transferable to CSU; UC  
General Education: AA/AS Area III(a); CSU Area E2  
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 335  
Volleyball IV 1 Unit  
Hours: 54 hours LAB  
Prerequisite: None.  
Advisory: TMACT 331; Advanced volleyball students are recommended to have significant experience, preferably at the high school varsity level.  
Course Transferable to CSU; UC  
General Education: AA/AS Area III(a) (effective Summer 2019); CSU Area E2  
This course is designed to teach advanced skills, principles and techniques necessary and fundamental to understanding and playing at an expert level. Emphasis is placed on the 6-2 and 5-1 team offensive/defensive systems and strategies. Includes participation in organized round robin competition preceded by a brief period of appropriate warm-up, skill development, and activities.

TMACT 495  
Independent Studies in Team Activity 1 - 3 Units  
Hours: 54 - 162 hours LAB  
Prerequisite: None.  
Course Transferable to CSU; UC  
General Education: AA/AS Area III(a); CSU Area E2  
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, Arts and Humanities
A.A. — Liberal Arts, Communication and Writing
A.A. — Liberal Arts, Math and Science
A.A. — Liberal Arts, Social and Behavioral Sciences

Program Description
The Associate Degree in Liberal Arts 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 can 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 may 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 courses (i.e. 300 or higher numbered courses) and area of emphasis. If you plan to transfer to a UC campus or a private college or university, please see a counselor to determine if this degree is the most appropriate choice.

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 your courses for 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.

A.A. in Liberal Arts - Arts and Humanities
The Associate Degree in Liberal Arts - Arts and Humanities is designed for students who wish a broad knowledge of the arts and humanities. 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.

DEGREE REQUIREMENTS

ART 300 Drawing and Composition I (3)
ART 302 Drawing and Composition II (3)
ART 304 Figure Drawing I (3)
ART 305 Figure Drawing II (3)
ART 312 Portrait Drawing (3)
ART 320 Design: Fundamentals (3)
ART 323 Design: Color Theory (3)
ART 324 Collage and Assemblage (3)
ART 327 Painting I (3)
ART 328 Painting II (3)
ART 361 Printmaking: Survey (3)
ART 370 Three Dimensional Design (3)
ART 372 Sculpture (3)
ART 430 Art and Children (3)
ARTH 300 Introduction to Art (3)
ARTH 303 Introduction to Forensic Anthropology (3)
ARTH 309 Art Survey: Renaissance to 19th Century (3)
ARTH 311 Art Survey: Modern Art (3)
ARTH 312 Women in Art (3)
ARTH 324 Art of the Americas (3)
ARTH 325 Native American Art History (3)
ARTH 328 Survey of African Art (3)
ARTH 332 Asian Art (3)
ARTH 333 Introduction to Islamic Art (3)
DEAF 310 American Sign Language I (4)
DEAF 314 American Sign Language III (4)
DEAF 316 American Sign Language IV (4)
ENGCS 410 Fiction Writing Workshop (3)
ENGCS 480 Honors Seminar: Creative Writing and Culture (3)
ENGLT 303 Introduction to the Short Story (3)
ENGLT 310 English Literature I (3)
ENGLT 311 English Literature II (3)
ENGLT 320 American Literature I (3)
ENGLT 321 American Literature II (3)
ENGLT 330 African American Literature (3)
ENGLT 336 Race and Ethnicity in Contemporary American Literature (3)
ENGLT 340 World Literature I (3)
ENGLT 341 World Literature II (3)
ENGLT 343 Contemporary Third World Literature (3)
ENGLT 345 Mythologies of the World (3)
ENGLT 360 Women in Literature (3)
ENGLT 370 Children and Literature (3)
ENGLT 402 Introduction to Shakespeare and Film (3)
ENGWR 301 College Composition and Literature (3)
FMS 300 Introduction to Film Studies (3)
FMS 305 Film History (3)
FMS 320 Film Genre (3)
FMS 488 Honors Seminar: Introduction to Critical Theory (3)

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

For more information about the student learning outcomes for this program, see www.crc.losrios.edu/pslo
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Units</th>
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<td>GEOL 101</td>
<td>Geology of the Grand Canyon</td>
<td>4</td>
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<td>HIST 101</td>
<td>Western Civilization</td>
<td>3</td>
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<td>HIST 102</td>
<td>Modern World History</td>
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<td>HUM 101</td>
<td>Humanities Survey</td>
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<tr>
<td>MATH 102</td>
<td>Calculus II</td>
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**Associate in Arts Degree**

The Liberal Arts - Arts and Humanities Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

**A.A. in Liberal Arts - Communication and Writing**

The Associate Degree in Liberal Arts - Communication and Writing is designed for students who wish a broad knowledge of communication studies and writing. 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.

**DEGREE REQUIREMENTS**

| COMM 101 | Introduction to Public Speaking | 3 |
| COMM 102 | Public Speaking | 3 |
| COMM 103 | Advanced Public Speaking | 3 |

**Association with Arts Degree**

The Liberal Arts - Communication and Writing Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

**A.S. in Liberal Arts - Math and Science**

The Associate Degree in Liberal Arts - Math and Science is designed for students who wish a broad knowledge of mathematics and the sciences. 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.

**DEGREE REQUIREMENTS**

| BIOL 101 | Principles of Biology | 4 |
| BIOL 102 | Principles of Chemistry | 4 |
| BIOL 103 | Principles of Physics | 4 |
| BIOL 104 | Principles of Chemistry | 4 |
| BIOL 105 | Principles of Physics | 4 |

| – Continued on next page – |

**Associate in Arts Degree**

The Liberal Arts - Arts and Humanities Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

**A.A. in Liberal Arts - Communication and Writing**

The Associate Degree in Liberal Arts - Communication and Writing is designed for students who wish a broad knowledge of communication studies and writing. 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.

**DEGREE REQUIREMENTS**

| COMM 101 | Introduction to Public Speaking | 3 |
| COMM 102 | Public Speaking | 3 |
| COMM 103 | Advanced Public Speaking | 3 |

**Association with Arts Degree**

The Liberal Arts - Communication and Writing Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

**A.S. in Liberal Arts - Math and Science**

The Associate Degree in Liberal Arts - Math and Science is designed for students who wish a broad knowledge of mathematics and the sciences. 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.

**DEGREE REQUIREMENTS**

| BIOL 101 | Principles of Biology | 4 |
| BIOL 102 | Principles of Chemistry | 4 |
| BIOL 103 | Principles of Physics | 4 |
| BIOL 104 | Principles of Chemistry | 4 |
| BIOL 105 | Principles of Physics | 4 |

| – Continued on next page – |
The Liberal Arts - Math and Science Associate in Science (A.S.)

DEGREE REQUIREMENTS

UNITS

A minimum of 18 units from the following:

- ECON 310  Economic Statistics (3)
- or
- PSYC 330  Introductory Statistics for the Behavioral Sciences (3)

PHYS 370  Introductory Physics - Mechanics and Thermodynamics (5)

PHYS 360  General Physics (4)

MATH 310  Mathematical Discovery (3)

CHEM 350  General Physics (4)

A minimum of 18 units from the following:

- CHEM 300  Beginning Chemistry (4)
- CHEM 305  Introduction to Chemistry (5)
- CHEM 306  Introduction to Organic and Biological Chemistry (5)
- CHEM 309  Integrated General, Organic, and Biological Chemistry (5)
- CHEM 321  Environmental Chemistry (3)
- CHEM 322  Environmental Chemistry Laboratory (1)
- CHEM 400  General Chemistry I (5)
- CHEM 401  General Chemistry II (5)
- CHEM 420  Organic Chemistry I (5)
- CHEM 421  Organic Chemistry II (5)
- GEOG 300  Physical Geophysics: Exploring Earth's Environmental Systems (3)
- GEOG 301  Physical Geography Laboratory (1)
- GEOG 305  Global Climate Change (3)
- GEOG 306  Weather and Climate (3)
- GEOL 300  Physical Geology (3)
- GEOL 301  Physical Geology Laboratory (1)
- GEOL 305  Earth Science (5)
- GEOL 306  Earth Science Laboratory (1)
- GEOL 310  Historical Geology (3)
- GEOL 311  Historical Geology Laboratory (1)
- GEOL 330  Introduction to Oceanography (3)
- MATH 300  Introduction to Mathematical Ideas (3)
- MATH 310  Mathematical Discovery (3)
- MATH 335  Trigonometry with College Algebra (5)
- MATH 341  Calculus for Business and Economics (4)
- MATH 343  Modern Business Mathematics (4)
- MATH 350  Calculus for the Life and Social Sciences I (3)
- MATH 351  Calculus for the Life and Social Sciences II (3)
- MATH 355  Calculus for Biology and Medicine I (4)
- MATH 356  Calculus for Biology and Medicine II (4)
- MATH 380  Precalculus (5)
- MATH 400  Calculus I (5)
- MATH 401  Calculus II (5)
- MATH 402  Calculus III (5)
- PHYS 310  Conceptual Physics (3)
- PHYS 350  General Physics (4)
- PHYS 360  General Physics (4)
- PHYS 370  Introductory Physics - Mechanics and Thermodynamics (5)
- PHYS 380  Introductory Physics - Electricity and Magnetism, Light and Modern Physics (5)
- PHYS 411  Mechanics of Solids and Fluids (4)
- PHYS 421  Electricity and Magnetism (4)
- PHYS 431  Heat, Waves, Light and Modern Physics (4)
- PSYC 312  Biological Psychology (4)
- STAT 300  Introduction to Probability and Statistics (4)
- or
- PSYC 330  Introductory Statistics for the Behavioral Sciences (3)
- or
- ECON 310  Economic Statistics (3)

A.A. in Liberal Arts - Social and Behavioral Sciences

The Associate Degree in Liberal Arts - Social and Behavioral Sciences is designed for students who wish a broad knowledge of social and behavioral sciences. 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 to a CSU after completing this Liberal Arts - Social and Behavioral Sciences degree, please consider an Associate in Arts for Transfer degree such as the Anthropology, Communication Studies, Early Childhood Education, Geography, History, Psychology or Sociology AA-T rather than this degree. See a counselor for assistance with selecting the most appropriate transfer courses (i.e., 300 or higher numbered courses). If you plan to transfer to a UC campus or a private college or university, please see a counselor to determine if this degree is the most appropriate choice.

DEGREE REQUIREMENTS

A minimum of 18 units from the following:

- AGS 321  Agriculture Economics (3)
- ANTH 310  Cultural Anthropology (3)
- ANTH 316  Global Forces in Culture Change (3)
- ANTH 323  Introduction to Archaeology (3)
- ANTH 324  World Prehistory (3)
- ANTH 331  The Anthropology of Religion (3)
- ANTH 332  Native Peoples of California (3)
- ANTH 333  Native Peoples of North America (3)
- ANTH 334  Native Peoples of the Americas (3)
- ANTH 341  Introduction to Linguistics (3)
- ANTH 374  Birth to Death: The Anthropology of Primate Culture and Behavior (3)
- BUS 330  Managing Diversity in the Workplace (3)
- BUS 345  Law and Society (3)
- COMM 325  Intercultural Communication (3)
- COMM 341  Organizational Communication (3)
- COMM 363  Introduction to Communication Theory (3)
- COMM 480  Honors Seminar: Political Campaign Communication (3)
- ECE 312  Child Development (3)
- ECE 314  The Child, the Family and the Community (3)
- ECON 302  Principles of Macroeconomics (3)
- ECON 304  Principles of Microeconomics (3)
- ECON 306  Environmental Economics (3)
- ETHNS 300  Introduction to Ethnic Studies (3)
- ETHNS 320  The African American Experience (3)
- ETHNS 330  The Asian American Experience in America (3)
- ETHNS 340  Chicano/Mexican Americans in the U.S. (3)
- ETHNS 344  The Latino Experience in America (3)
- GEOG 310  Human Geography: Exploring Earth's Cultural Landscapes (3)
- GEOG 322  Geography of California (3)
- GEOG 481  Honors Seminars: Nature & Culture (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 312  History of the United States (to 1865) (3)
- HIST 313  History of the United States (1865–1945) (3)
- HIST 314  Recent United States History (3)
- HIST 320  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)

Continued on next page
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)
HONOR 340 Honors Seminar: Political Campaign
    Communication (3)
HONOR 370 Honors Seminars in Social Science (1)
HUM 484 Honors Seminar: Nature & Culture (3)
JOUR 310 Mass Media and Society (3)
JOUR 320 Race and Gender in the Media (3)
PHIL 360 Social/Political Philosophy (3)
POLS 301 Introduction to Government: United States (3)
POLS 302 Comparative Politics (3)
POLS 304 Introduction to Government: California (3)
POLS 310 Introduction to International Relations (3)
POLS 311 International Political Economy (3)
POLS 312 Politics of the Middle East (3)
POLS 313 Latin America (3)
POLS 314 Modern Europe and the Unification Process (3)
POLS 315 Pacific Rim (3)
POLS 317 Global Studies: Africa (3)
POLS 318 Global Studies: Central Asia (3)
POLS 319 Global Studies: Southeast Asia (3)
POLS 320 Introduction to Political Theory (3)
PSYC 300 General Principles (3)
PSYC 312 Biological Psychology (4)
PSYC 320 Social Psychology (3)
PSYC 335 Research Methods in Psychology (3)
PSYC 340 Abnormal Behavior (3)
PSYC 356 Human Sexuality (3)
PSYC 368 Cross Cultural Psychology (3)
PSYC 371 Life Span Developmental Psychology (3)
RTVF 300 Mass Media and Society (3)
SILA 330 Introduction to Deaf Culture (3)
SOC 300 Introductory Sociology (3)
SOC 301 Social Problems (3)
SOC 302 Introduction to Social Research Methods (3)
SOC 305 Critical Thinking in the Social Sciences (3)
SOC 321 Race, Ethnicity and Inequality in the United States (3)
SOC 341 Sex and Gender in the U.S. (3)
SOCSC 480 Honors Seminars in Social Science (1)
TA 306 Diversity in American Drama (1960 to Present) (3)

Associate in Arts Degree

The Liberal Arts - Social and Behavioral Sciences Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
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.

Library Research and Information Literacy 1 Unit

LIBR 318

Library Research and Information Literacy 1 Unit

Hours: 18 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC (Library 318 and 325 combined: maximum transfer credit is one course)

General Education: AA/AS Area III(b)

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.

Critical Thinking and Information Literacy 3 Units

LIBR 324

Critical Thinking and Information Literacy 3 Units

Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGRD 113, ENGWR 101, ESLR 320, or ESLW 320; Proficient computer skills are critical for successful completion of this course.
Course Transferable to CSU

General Education: AA/AS Area III(b)

This course teaches critical thinking to allow students to thoughtfully navigate an information-rich environment. Students will learn information literacy skills to critically seek, access, evaluate, and use information in a variety of contexts. These are skills that are invaluable for the college classroom, the workplace, and for lifelong information consumers.

Independent Studies in Library 1 - 3 Units

LIBR 495

Independent Studies in Library 1 - 3 Units

Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU

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 Library .5-4 Units

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
Management in Business

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 ............................................ Department Manager
First-line Supervisor ..................................... Office Manager
Plant Manager ............................................. Project Manager
Entrepreneur .............................................. Shift Supervisor
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

ASSOCIATE DEGREE
A.A. in Management

CODE #1169

DEGREE REQUIREMENTS .................................................. UNITS
BUS 300 Introduction to Business ...................... 3
BUS 340 Business Law ......................................... 3
ACCT 301 Financial Accounting ........................ 4
ECON 302 Principles of Macroeconomics ......... 3
MKT 300 Principles of Marketing ...................... 3
MGMT 362 Techniques of Management ............. 3
MGMT 372 Human Relations and Organizational Behavior .... 3

A minimum of 6 units from the following:
BUS 310 Business Communications (3)
BUS 330 Managing Diversity in the Workplace (3)
BUS 350 Small Business Management/Entrepreneurship (3)
MGMT 308 Personnel and Human Resources Management (3)
MGMT 495 Independent Studies in Management (1 - 3)
MGMT 498 Work Experience in Management (1 - 4)

A minimum of 3 units from the following:
CISC 310 Introduction to Computer Information Science (3)
CISA 305 Beginning Word Processing (2)
CISA 308 Exploring Word Processing and Presentation Software (1)
CISA 315 Introduction to Electronic Spreadsheets (2)
CISA 320 Introduction to Database Management (1)

Total Units: .................................................. 31

Associate Degree
The Management Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Management in Business Certificate

CODE #1175

This Certificate of Achievement provides an overview of business fundamentals for students interested in most business occupations. Topics include management techniques, human resources, and organizational behavior. Students wanting to earn the A.A. degree in Business, General can do so by taking additional courses beyond the 18 units required for this certificate. Please seek advice from your counselor to verify the correct courses to take towards the A.A degree.

CERTIFICATE REQUIREMENTS ........................................ UNITS
MGMT 362 Techniques of Management ............. 3
MGMT 372 Human Relations and Organizational Behavior .... 3
BUS 300 Introduction to Business ...................... 3
MKT 300 Principles of Marketing ...................... 3
BUS 340 Business Law ......................................... 3

A minimum of 3 units from the following:
MGMT 308 Personnel and Human Resources Management (3)
BUS 310 Business Communications (3)
BUS 330 Managing Diversity in the Workplace (3)
BUS 350 Small Business Management/Entrepreneurship (3)
ACCT 301 Financial Accounting (4)
CISC 310 Introduction to Computer Information Science (3)

Total Units: .................................................. 18
**MANAGEMENT (MGMT)**

**MGMT 295**
Independent Studies in Management 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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 362**
Techniques of Management 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
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
General Education: AA/AS Area III(b)
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
DEGREE
A.A.—Marketing

CERTIFICATE OF ACHIEVEMENT
Marketing

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

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
- Opportunities for Work Experience in local industry and business
- Training in a career where one third of the presidents of Fortune 500 corporations have marketing backgrounds
- Coursework in international marketing
- A lab with tutorial assistance

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

ASSOCIATE DEGREE
A.A. in Marketing
CODE #1177

DEGREE REQUIREMENTS .................................................UNITS
BUS 300 Introduction to Business ....................................3
BUS 340 Business Law ..................................................3
ACCT 301 Financial Accounting .....................................4
ECON 302 Principles of Macroeconomics ..........................3
MKT 300 Principles of Marketing ......................................3
MKT 310 Selling Professionally .......................................3
MKT 314 Advertising ....................................................3

A minimum of 6 units from the following:
MKT 330 Internet Marketing (3)
MKT 312 Retailing (3)
BUS 310 Business Communications (3)
BUS 330 Managing Diversity in the Workplace (3)
BUS 350 Small Business Management/Entrepreneurship (3)
MKT 495 Independent Studies in Marketing (1 - 3)
MKT 498 Work Experience in Marketing (1 - 4)

A minimum of 3 units from the following:
CISC 310 Introduction to Computer Information Science (3)
CISC 305 Beginning Word Processing (2)
CISC 308 Exploring Word Processing and Presentation Software (1)
CISC 315 Introduction to Electronic Spreadsheets (2)
CISC 320 Introduction to Database Management (1)

Total Units: ......................................................... 31

Associate Degree
The Marketing Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Marketing Certificate
CODE #2018

This Certificate of Achievement in Marketing provides an opportunity for students to acquire knowledge and training for business marketing and prepares them for careers in sales, advertising, customer service, and business development. Students wanting to earn the A.A. degree in Marketing can do so by taking additional courses beyond the 18 units required for this certificate. Please seek advice from your counselor to verify the correct courses to take towards the A.A. degree.

CERTIFICATE REQUIREMENTS .........................................UNITS
MKT 300 Principles of Marketing ......................................3
MKT 310 Selling Professionally .......................................3
MKT 314 Advertising ....................................................3
BUS 300 Introduction to Business ....................................3
BUS 340 Business Law ..................................................3

A minimum of 3 units from the following:
BUS 310 Business Communications (3)
BUS 330 Managing Diversity in the Workplace (3)
BUS 350 Small Business Management/Entrepreneurship (3)
MKT 495 Independent Studies in Marketing (1 - 3)
MKT 498 Work Experience in Marketing (1 - 4)

Total Units: ......................................................... 18
MKT 120
Survey of International Business 3 Units
Hours: 54 hours LEC
Prerequisite: None.
This course is a comprehensive overview of international business designed to provide both beginners and experienced business people with a global perspective on international trade including foreign investments, impact of financial markets, and the operation of multi-national corporations.

MKT 295
Independent Studies in Marketing 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
This course introduces students to the use of social media and other Internet technologies, with an emphasis on the theory and practice of marketing in an electronic environment. Topics will include strategies to help students build customer relations through technological strategies. 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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
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
General Education: AA/AS Area III(b)
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
- Assessor
- Biometrician
- Casualty Rater
- Computer Programmer
- Econometrician
- Epidemiologist
- Investment Analyst
- Mathematician
- Statistician
- Surveyor
- Teacher

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 tutorial support for students
- A Mathematics, Engineering and Science Achievement (MESA) program
- A Supplemental Instruction (SI) program embedding student instructional assistants in select courses to augment student learning

**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)

**ASSOCIATE DEGREES**

**A.S.-T. in Mathematics**

**CODE #1971**

The 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 (AS-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.

**DEGREE REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</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>
</tbody>
</table>

Total Units: 22

**Associate in Science in Math for Transfer Degree**

The Associate in Science in Mathematics for Transfer (AS-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

**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.
A.S. in 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 institutions. It is highly recommended that students meet with a counselor because major and general education requirements vary for each college/university.

DEGREE REQUIREMENTS ......................................................... UNITS
MATH 400  Calculus I ................................................................. 5
MATH 401  Calculus II ................................................................. 5
MATH 402  Calculus III ................................................................. 5
MATH 420  Differential Equations ...................................................... 4
MATH 410  Introduction to Linear Algebra ........................................ 3
A minimum of 4 units from the following:
CISP 360  Introduction to Structured Programming (4)................ 4
or CISP 370  Beginning Visual Basic (4)
or CISP 400  Object Oriented Programming with C++ (4)
or CISP 401  Object Oriented Programming with Java (4)
or STAT 300  Introduction to Probability and Statistics (4)
Total Units: .............................................................................. 26

Associate Degree
The Mathematics Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

See page 322 for CRC Math Tree

MATH 20
Arithmetic .......................... 5 Units
Hours: 90 hours LEC
Prerequisite: None.
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
Hours: 90 hours LEC
Prerequisite: MATH 20 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
This pre-algebra mathematics course emphasizes: fundamental operations on integers, fractions, and decimals; formulas involving geometric figures; measurement; and solving basic equations. 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; the rectangular coordinate system; and elementary calculator use.

MATH 70
Arithmetic Skills Lab ....... 0.25 - 2 Units
Hours: 13.5 - 108 hours LAB
Prerequisite: None.
Corequisite: MATH 20
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 321 for AP Math Credit
MATH 71
Pre-Algebra Skills Lab 0.25 - 2 Units
Hours: 13.5 - 108 hours LAB
Prerequisite: None.
Corequisite: MATH 30
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 0.25 - 2 Units
Hours: 13.5 - 108 hours LAB
Prerequisite: None.
Corequisite: MATH 100, 101, or 102
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 0.25 - 2 Units
Hours: 13.5 - 108 hours LAB
Prerequisite: None.
Corequisite: MATH 120, 125, or 144
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 0.25 - 2 Units
Hours: 13.5 - 108 hours LAB
Prerequisite: None.
Corequisite: MATH 110 or STAT 300
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 0.25 - 2 Units
Hours: 13.5 - 108 hours LAB
Prerequisite: None.
This laboratory course provides the student with assistance in all non-transferable 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 0.25 - 2 Units
Hours: 13.5 - 108 hours LAB
Prerequisite: None.
Corequisite: MATH 335 or 370
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 0.25 - 2 Units
Hours: 13.5 - 108 hours LAB
Prerequisite: None.
Corequisite: MATH 350, 351, 400, or 401
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 multi-variable 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 0.25 - 2 Units
Hours: 13.5 - 108 hours LAB
Prerequisite: None.
Corequisite: MATH 402, 410, or 420
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 0.25 - 2 Units
Hours: 13.5 - 108 hours LAB
Prerequisite: None.
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 0.25 - 6 Units
Hours: 13.5 - 324 hours LAB
Prerequisite: None.
This course is designed for students concurrently enrolled in MATH 20, 30, 100, 101, 102, 110, 125, or 144; placement can be made through student request, instructor recommendation, or an assessment process. This laboratory course provides assistance in study 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 0.25 - 6 Units
Hours: 13.5 - 324 hours LAB
Prerequisite: None.
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 manipulations, graphing, statistics, problem solving, etc.

MATH 83
Self Study Mathematics Modules 0.25 - 1 Unit
Hours: 13.5 - 54 hours LAB
Prerequisite: None.
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
Hours: 18 hours LEC
Prerequisite: None.
This course is designed to assist students in learning mathematics through the development of successful math study skills, specifically at the basic skills level (arithmetic, prealgebra, and beginning algebra). This course addresses topics such as learning styles, tools and techniques for reading a math textbook, using math homework as a learning tool, taking notes in a math class, preparing and taking exams/ quizzes in a math class, and techniques for overcoming math anxiety. It is strongly advised that students be concurrently enrolled in a math course, as an opportunity to apply the learned material in real time. For further guidance and/or recommendations, students are advised to speak with someone in the math department.
MATH 100
Elementary Algebra 5 Units
Hours: 90 hours LEC
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
Hours: 36 hours LEC
Prerequisite: MATH 30 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
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
Hours: 54 hours LEC
Prerequisite: MATH 101 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
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
Hours: 90 hours LEC
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)
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
Hours: 90 hours LEC
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)
This course extends the concepts of elementary algebra with problem solving skills and applications emphasized throughout. Topics which are briefly reviewed and subsequently extended include: solving equations (quadratic, radical, rational, and systems of linear equations), graphing linear equations, simplifying expressions (polynomial, rational, radical, and those involving integer exponents), and factoring polynomials. New topics include: solving more complex equations and inequalities (exponential, logarithmic, linear and quadratic inequalities, and systems of non-linear equations), graphing more complex equations (quadratics, circles, and various functions using transformations), functions and their properties, exponential and logarithmic functions and their properties.

MATH 125
Intermediate Algebra with Applications 4 Units
Hours: 72 hours LEC
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)
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, exponential, logarithmic and radical expressions and equations. This course will feature discovery activities, applications to real data sets and problems which are current and relevant.

MATH 144
Math for Contemporary Careers 3 Units
Hours: 54 hours LEC
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)
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
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 300
Introduction to Mathematical Ideas 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: MATH 120 or 125 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area l(b); CSU Area B4; IGETC Area 2

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
Hours: 54 hours LEC
Prerequisite: MATH 110 or Geometry; AND MATH 120 or 125 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU
General Education: AA/AS Area l(b); CSU Area B4

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 335
Trigonometry with College Algebra 5 Units
Hours: 90 hours LEC
Prerequisite: MATH 110 or Geometry; AND MATH 120; both with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU
General Education: AA/AS Area l(b); CSU Area B4

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
Hours: 72 hours LEC
Prerequisite: MATH 120 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC (MATH 341, 350 and 400 combined: maximum transfer credit of one course)
General Education: AA/AS Area l(b); CSU Area B4; IGETC Area 2

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, physical or life science majors. (C-ID MATH 140)

MATH 343
Modern Business Mathematics 4 Units
Hours: 72 hours LEC
Prerequisite: MATH 120 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU
General Education: AA/AS Area l(b); CSU Area B4

This course is designed around applications of mathematics in an economic and business context. The major topics included are functions, 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 350
Calculus for the Life and Social Sciences I 3 Units
Hours: 54 hours LEC
Prerequisite: MATH 335 with a grade of “C” or better; or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU
General Education: AA/AS Area l(b); CSU Area B4; IGETC Area 2

This course is designed around applications of mathematics in an economic and business context. The major topics included are functions, 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 351
Calculus for the Life and Social Sciences II 3 Units
Hours: 54 hours LEC
Prerequisite: MATH 120 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC (MATH 350, 351, 400, 401 and 402 combined: maximum transfer credit of one course)

This course is designed around applications of mathematics in an economic and business context. The major topics included are functions, 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 355
Calculus for Business and Economics 4 Units
Hours: 72 hours LEC
Prerequisite: MATH 120 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC (MATH 341, 350 and 400 combined: maximum transfer credit of one course)

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, physical or life science majors. (C-ID MATH 140)
MATH 355
Calculus for Biology and Medicine I 4 Units
Hours: 72 hours LEC
Prerequisite: MATH 335 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: CSU Area B4; IGETC Area 2
This course is an introduction to differential calculus and elementary differential equations via applications in biology and medicine. It covers limits, derivatives of polynomials, trigonometric and exponential functions, graphing, and applications of the derivative to biology and medicine. Topics include the Fundamental Theorem of Calculus and techniques of integration, including integral tables and numerical methods.

MATH 356
Calculus for Biology and Medicine II 4 Units
Hours: 72 hours LEC
Prerequisite: MATH 355 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: CSU Area B4; IGETC Area 2
This course covers matrix algebra with eigenvalues and eigenvectors, systems of linear equations, functions of several variables, partial derivatives, systems of differential equations, and applications to biology and medicine.

MATH 370
Pre-Calculus Mathematics 5 Units
Hours: 90 hours LEC
Prerequisite: MATH 335 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area Ilib; CSU Area B4; IGETC Area 2
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, logarithmic, and trigonometric 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
Hours: 90 hours LEC
Prerequisite: MATH 370 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area Ilib; CSU Area B4; IGETC Area 2
This course explores the basic concepts of analytic geometry, limits, derivatives, and integrals. Topics covered will 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
Hours: 90 hours LEC
Prerequisite: MATH 400 with a grade of “C” or better
Course Transferable to CSU; UC (MATH 350, 351, 400, 401 and 402 combined: maximum transfer credit of one series*)
General Education: AA/AS Area Ilib; CSU Area B4; IGETC Area 2
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
Hours: 90 hours LEC
Prerequisite: MATH 401 with a grade of “C” or better
Course Transferable to CSU; UC (MATH 350, 351, 400, 401 and 402 combined: maximum transfer credit of one series*)
General Education: AA/AS Area Ilib; CSU Area B4; IGETC Area 2
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. (C-ID MATH 230)

MATH 410
Introduction to Linear Algebra 3 Units
Hours: 54 hours LEC
Prerequisite: MATH 401 with a grade of “C” or better
Advisory: MATH 402
Course Transferable to CSU; UC
General Education: AA/AS Area Ilib; CSU Area B4; IGETC Area 2
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. (C-ID MATH 250)

MATH 420
Differential Equations 4 Units
Hours: 72 hours LEC
Prerequisite: MATH 401 with a grade of “C” or better
Advisory: MATH 402 (may be taken concurrently)
Course Transferable to CSU; UC
General Education: AA/AS Area Ilib; CSU Area B4
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. (C-ID MATH 240)
MATH 483
Honors Seminar in Mathematics - Introduction to Mathematical Proof 1 Unit

Same As: HONOR 391
Hours: 18 hours LEC
Prerequisite: MATH 370 with a grade of “C” or better

Course Transferable to CSU; UC

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 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 392
Hours: 18 hours LEC
Prerequisite: MATH 370 with a grade of “C” or better

Course Transferable to CSU; UC

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 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

Hours: 54 - 162 hours LAB
Prerequisite: None.

Course Transferable to CSU

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 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 100
Pre-Statistics 4 Units

Hours: 54 hours LEC; 54 hours LAB
Prerequisite: MATH 30 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.

This course prepares students for transfer-level Statistics. Topics include computational mathematics needed for statistics: ratios, rates, and proportional reasoning; arithmetic with fractions, decimals and percents; evaluating expressions, solving equations and inequalities, and analyzing formulas to understand statistical measures; introduction to statistical terminology and use of statistical symbols; introduction to probability, venn diagrams, set theory and two-way statistical tables; graphical and numerical descriptive statistics for quantitative and categorical data; use of linear and exponential functions to model bivariate data. Note: This course is not intended as preparation for the PreCalculus/Trigonometry courses required for students as part of their pathway to science, computer information science, engineering, or mathematics.

STAT 300
Introduction to Probability and Statistics 4 Units

Hours: 54 hours LEC; 54 hours LAB
Prerequisite: MATH 120, MATH 125, or STAT 100 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.

Course Transferable to CSU; UC

General Education: AA/AS Area ll(b); CSU Area B4; IGETC Area 2

This course is an introduction to probability and statistics. Topics include elementary principles and applications of descriptive statistics, 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. (C-ID MATH 110)

STAT 480
Introduction to Probability and Statistics - Honors 4 Units

Same As: HONOR 393
Hours: 72 hours LEC
Prerequisite: MATH 120 or 125 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.

Course Transferable to CSU; UC

General Education: AA/AS Area ll(b); CSU Area B4; CSU Area 2

This course is an introduction to probability and statistics designed for students in the honors program. 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 statistical capabilities may be required for this class. This honors section uses an intensive instructional methodology designed to challenge motivated students. This course is the same as HONOR 393 and only one may be taken for credit.
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>
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<tr>
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<td>Math 350</td>
<td>3 units</td>
<td>Math 351 or Math 400</td>
</tr>
<tr>
<td>4</td>
<td>Math 400</td>
<td>5 units</td>
<td>Math 401</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculus BC: 3</td>
<td>Math 350 or 341</td>
<td>3 units</td>
<td>Math 351 or Math 400</td>
</tr>
<tr>
<td>Calculus BC: 4 or 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Math 341</td>
<td>3 units</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Math 350 &amp; 351</td>
<td>6 units</td>
<td>Math 402</td>
</tr>
<tr>
<td></td>
<td>Math 400 &amp; 401</td>
<td>10 units</td>
<td></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’Hopital’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.
Transfer Students unsure of major should take MATH 120

Transferable math courses for other majors. See counselor for correct math requirements.

***MATH 100 – Elementary Algebra (5 units)
(degree-applicable as an elective, only; non-transferable)

MATH 335 (5 units)
Trigonometry with College Algebra (CSU)

MATH 400 (5 units)
Calculus I (Engineering Calc.) (CSU / UC)

MATH 335 (4 units)
Calculus for the Life & Social Sciences I (CSU / UC)

MATH 406 (4 units)
Calculus for the Life & Social Sciences II (CSU / UC)

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)

MATH 410 (3 units)
Intro to Linear Algebra (CSU / UC)

* Transfer Students unsure of major should take MATH 120
** Transferable math courses for other majors. 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 competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Upon completion of the Certificate in Medical Assisting, students may take the CMA certification exam administered by American Association of Medical Assistants. (AAMA)
The Cosumnes River College Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs
1361 Park Street
Clearwater, FL 33756
727/210-2350

Career Opportunities
Administrative Medical Assistant
Clinical Medical Assistant
Insurance Billing Specialist

Highlights
• Employment is projected to grow much faster than average (29%), ranking medical assistants among the fastest growing occupations over the 2016–26 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/pso

ASSOCIATE DEGREE
A.S. in 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
  • ENGW 101 - or eligibility for ENGWR 300 as determined by assessment testing
  • MEDA 100 - or eligibility for MEDA 100 as determined by assessment testing

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.

DEGREE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDA 124</td>
<td>Administrative Medical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>MEDA 105</td>
<td>General Medical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>COMM 325</td>
<td>Intercultural Communication (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ANTH 313</td>
<td>Introduction to Cultural Anthropology: Medical Focus (3)</td>
<td>3</td>
</tr>
<tr>
<td>AH 120</td>
<td>Human Disease</td>
<td>3</td>
</tr>
<tr>
<td>PSY 300</td>
<td>General Principles (3)</td>
<td>3</td>
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<tr>
<td>AH 124</td>
<td>Pharmacology for the Health Care Professional</td>
<td>2</td>
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<tr>
<td>FCS 324</td>
<td>Human Development: A Life Span (3)</td>
<td>3</td>
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<tr>
<td>or PSY 371</td>
<td>Life Span Developmental Psychology (3)</td>
<td>3</td>
</tr>
<tr>
<td>MEDA 230</td>
<td>Clinical Procedures</td>
<td>5</td>
</tr>
<tr>
<td>MEDA 140</td>
<td>Medical Assisting Practicum</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units:</strong></td>
<td></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>

1 may be taken either fall or spring semester
2 may be taken either fall or spring semester
3 This is the capstone course and should be taken last.

Suggested Electives:
SPAN 101, MATH 144; NUTRI 300

Associate in Science Degree
The Medical Assisting Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
CERTIFICATE OF ACHIEVEMENT
Medical Assisting, Administrative Certificate
CODE #1184

This curriculum is designed to prepare the individual with front office skills for employment as an Administrative Medical Assistant in a physician’s office, hospital, clinic, laboratory, pharmaceutical company, or health insurance company.

CERTIFICATE REQUIREMENTS ........................................... UNITS
AH 110 Medical Language for Health-Care Providers ........... 3  
BIOL 100 Introduction to Concepts of Human Anatomy and Physiology (3) ............ 3 - 4  
or BIOL 102 Essentials of Human Anatomy and Physiology (4)  
BUS 100 English for the Professional .................................. 3  
CISC 302 Computer Familiarization .................................... 2  
MEDA 100 Introduction to Medical Assisting ........................... 1.5  
MEDA 110 Medical Insurance Procedures ............................ 1.5  
MEDA 124 Administrative Medical Assisting .......................... 3  
AH 120 Human Disease .................................................. 3  

Total Units: ......................................................................... 20 - 21

1 BIOL 430/431 combo is also acceptable

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
  • BUS 100 - English for the Professional
  • MEDA 100 - Introduction to Medical Assisting (within the last 5 years)

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, rubeola, varicella, TdAP, and possibly influenza. Placement in a clinical location will be contingent upon the results of this screening.

CERTIFICATE REQUIREMENTS ........................................... UNITS
MEDA 100 Introduction to Medical Assisting .......................... 1.5
MEDA 230 Clinical Procedures ............................................. 5
MEDA 140 Medical Assisting Practicum .................................. 3  

Total Units: ......................................................................... 28

1 Course 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.
**MEDICAL ASSISTING (MEDA)**

**MEDA 100**  
Introduction to Medical Assisting  
1.5 Units  
Hours: 27 hours LEC  
Prerequisite: None.  
Advisory: ENGRD 110 or ESLR 310 with a grade of "C" or better  
This course provides an introduction to the field of Medical Assisting. Students will learn the 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 desired qualities and characteristics of a successful medical assistant. Additionally, the CRC Medical Assisting Program entrance requirements will be discussed.

**MEDA 105**  
General Medical Assisting  
3 Units  
Hours: 54 hours LEC  
Prerequisite: None.  
Enrollment Limitation: Student must be accepted in to the current cohort of the CRC Medical Assisting program to be eligible for enrollment in this course.  
This course will cover the topics outlined in the American Association of Medical Assistants (AAMA) General category of knowledge of an entry-level medical assistant, as required for certification. Areas covered will include gross Anatomy, applied Medical Terminology, and Law and Ethics as they pertain to Medical Assisting.

**MEDA 110**  
Medical Insurance Procedures  
1.5 Units  
Hours: 27 hours LEC  
Prerequisite: None.  
Corequisite: AH 110  
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  
Hours: 36 hours LEC; 54 hours LAB  
Prerequisite: None.  
Enrollment Limitation: Acceptance in to the CRC Medical Assisting Program  
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  
Hours: 180 hours LAB  
Prerequisite: COMM 325, MEDA 230, PSYC 300, and PSYC 371 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 and rubeola.  
Enrollment Limitation: Students must have on file with the Program Director the following documents prior to clinical placement:  
*CPR for the Healthcare Provider through the American Heart Association; *Two negative PPDs - one within two years and another no more than 6 months prior to clinic placement, or negative chest x-ray within 2 years; *MMR and Varicella immunity status; *TDaP vaccination within three years; *May be required to provide documentation of influenza vaccination; *Liability insurance; *Background and drug screening clearance. This course consists of supervised experience in a healthcare 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 Healthcare Provider CPR from American Heart Association, as well as 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 145**  
Medical Assisting Certification Review  
2 Units  
Hours: 36 hours LEC  
Prerequisite: None.  
Enrollment Limitation: Students must meet the Certifying Agencies examination eligibility requirements to enroll in this course.  
*Graduate from a CAAHEP or ABHES accredited MA program; OR  
*Currently employed as an MA by a licensed MD/DO in the United States; OR *At least two years employment within the previous five years as an MA, either in private sector or military enlisted; OR *Current MA instructor at an accredited institution in the United States. This course is designed to prepare students for the Medical Assisting certification examinations offered by the three Certifying Agencies approved by the California Medical Board - the American Association of Medical Assistants (AAMA), the American Medical Technologists (AMT), or the California Certifying Board of Medical Assistants (CCBMA). This course is available to students who meet the current exam eligibility requirements for at least one of the Certifying Agencies. Students will be required to provide documentation of eligibility.

**MEDA 230**  
Clinical Procedures  
5 Units  
Hours: 36 hours LEC; 162 hours LAB  
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.  
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Medical Assisting.
General Education: AA/AS Area III(b)
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
DEGREE
A.A. — Music, General
AA-T – Music for Transfer

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

ASSOCIATE DEGREES
A.A.-T. in Music
CODE # 1994

Program Description:
Completion of this degree provides a foundation in music. Program offerings include course work in music theory and aural skills, applied instrumental and vocal instruction, and ensemble performance.

The Associate in Arts in Music for Transfer Degree (AA-T) is designed to provide a seamless transfer pathway for students interested in pursuing at least one Music degree option in the California State University (CSU) system. The degree is comprised of lower division coursework typically required by CSU institutions. Students must complete the core curriculum and electives to meet a total of 60 transferable units, which includes the CSU General Education Breadth or the Intersegmental General Education Transfer Curriculum (IGETC) pattern. 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.

DEGREE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUFHL 400</td>
<td>Music Theory and Musicianship I</td>
<td>4</td>
</tr>
<tr>
<td>MUFHL 404</td>
<td>Music Theory II</td>
<td>3</td>
</tr>
<tr>
<td>MUFHL 405</td>
<td>Musicianship II</td>
<td>1</td>
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<tr>
<td>MUFHL 412</td>
<td>Music Theory III</td>
<td>3</td>
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<tr>
<td>MUFHL 413</td>
<td>Musicianship III</td>
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<tr>
<td>MUFHL 414</td>
<td>Music Theory IV</td>
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<tr>
<td>MUFHL 415</td>
<td>Musicianship IV</td>
<td>1</td>
</tr>
</tbody>
</table>

A minimum of 4 units from the following:

• Students must complete four semesters of applied music.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUIVI 410</td>
<td>Applied Music (1)</td>
<td></td>
</tr>
</tbody>
</table>

A minimum of 4 units from the following:

All music majors must successfully complete four semesters of a large performing ensemble. Students seeking both the AA-T and AA degree in music should take MUP 330: Concert Band, MUP 310: Orchestra, MUP 357: College Chorus, or MUP 360: Chamber Singers. Please see the Music Counselor or Music Department Chair for more information.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUP 335</td>
<td>Concert Band (1)</td>
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</tr>
<tr>
<td>MUP 358</td>
<td>College Chorus Chorale (1)</td>
<td></td>
</tr>
<tr>
<td>MUP 362</td>
<td>Chamber Singers Chorale (1)</td>
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</tr>
</tbody>
</table>

Total Units: 24

Associate in Arts for Transfer Degree
The Associate in Arts in Music for Transfer (AA-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.
**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.

**A.A. in Music, General**

**CODE #1196**

**Enrollment Eligibility**

To be eligible for enrollment in the program, the student must meet the following criteria:

- Music literacy at the college level.
- Performance skills at the college level.

**Enrollment Process**

Eligible students are selected for the program according to the following steps:

- Enroll in applied music or equivalent courses. Enroll in performing ensemble.
- Pass music literacy test (given on first class session of MUFHL 400) or pass MUFHL 321, Basic Musicianship with a grade of C or better.

**DEGREE REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUFHL 310</td>
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<tr>
<td>MUFHL 311</td>
<td>8</td>
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<tr>
<td>MUFHL 400</td>
<td>8</td>
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<tr>
<td>MUFHL 404</td>
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<td>MUFHL 412</td>
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<td>MUFHL 414</td>
<td>8</td>
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<td>MUIVI 341</td>
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<td>MUIVI 350</td>
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<td>MUIVI 372</td>
<td>8</td>
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<tr>
<td>MUIVI 410</td>
<td>8</td>
</tr>
<tr>
<td>MUFHL 495</td>
<td>8</td>
</tr>
</tbody>
</table>

**A minimum of 8 units from the following:**

- MUP 310 Orchestra (2)
- MUP 320 Jazz Band (2)
- MUP 330 Concert Band (2)

**Subtotal Units:** 34

**Instrumental Majors**

**A minimum of 8 units from the following:**

- MUP 310 Orchestra (2)
- MUP 320 Jazz Band (2)
- MUP 330 Concert Band (2)

**Subtotal Units:** 8

**Keyboard Majors**

**A minimum of 8 units from the following:**

- MUP 320 Jazz Band (2)
- MUP 330 Concert Band (2)
- MUP 350 Concert Choir I (2)
- MUP 357 College Chorus (2)
- MUP 310 Orchestra (2)
- MUP 360 Chamber Singers (2)

**Voice Majors**

**A minimum of 8 units from the following:**

- MUP 357 College Chorus (2)
- MUP 360 Chamber Singers (2)

**Subtotal Units:** 42

**CERTIFICATE**

**Entrepreneurial Arts: Independent Music Instructor Certificate**

**CODE #2027**

This certificate provides real world tools for the aspiring music teacher to earn a living as a thriving and successful independent music instructor.

**DEGREE REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSM 370 Music for Children</td>
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</tr>
<tr>
<td>MUIVI 321 Voice Class IV (2)</td>
<td>3</td>
</tr>
<tr>
<td>MUIVI 351 Piano IV (2)</td>
<td>2</td>
</tr>
<tr>
<td>MUIVI 371 Intermediate Guitar (2)</td>
<td>2</td>
</tr>
<tr>
<td>MUP 310 Orchestra (2)</td>
<td>2</td>
</tr>
<tr>
<td>MUP 321 Advanced Jazz Band (1 -2)</td>
<td>2</td>
</tr>
<tr>
<td>MUP 330 Concert Band (2)</td>
<td>2</td>
</tr>
<tr>
<td>MUP 357 College Chorus (2)</td>
<td>2</td>
</tr>
<tr>
<td>MUFHL 300 Introduction to Music</td>
<td>3</td>
</tr>
<tr>
<td>BUS 215 Entrepreneurial Opportunity and Business Planning</td>
<td>3</td>
</tr>
</tbody>
</table>

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

- MUFHL 400 Music Theory and Musicianship I (4)
- MUFHL 404 Music Theory II (3)
- MUFHL 412 Music Theory III (3)
- MUFHL 414 Music Theory IV (3)
- MUSM 498 Work Experience in Music Specializations (3)

**Subtotal Units:** 17 - 21

1. NOTE: All music majors are required to enroll in at least one music performance course each semester they are enrolled.
2. NOTE: All music majors are required to enroll in at least one music performance class each semester they are enrolled.
3. NOTE: All music majors are required to enroll in at least one music performance course each semester they are enrolled.
MUSIC FUNDAMENTALS, HISTORY & LITERATURE (MUFHL)

MUFHL 300
Introduction to Music 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC (MUFHL 300 and 321 combined: maximum credit of one transfer course)
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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. Concert attendance is required. Designed for the student with no previous musical study and for those who are particularly interested in the humanities or the arts. (C-ID MUS 100)

MUFHL 308
Introduction to Music: Rock & Roll 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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 (Greek Antiquity to 1750) 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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 (1750 to the present) 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC (MUFHL 300 and 321 combined: maximum credit of one transfer course)
General Education: CSU Area C1; IGETC Area 3A
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. (C-ID MUS 110)

MUFHL 330
World Music 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C1; IGETC Area 3A
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 and Musicianship I 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: None.
Corequisite: MUIVI 340
Course Transferable to CSU; UC
General Education: CSU Area C1; IGETC Area 3A
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. (C-ID MUS 125; C-ID MUS 120)
### MUFHL 401
**Music Theory and Musicianship II**  
4 Units  
*Hours: 54 hours LEC; 54 hours LAB*  
**Prerequisite:** MUFHL 400 with a grade of “C” or better  
**Corequisite:** MUIVI 341;  
**Course Transferable to CSU; UC**  
With an emphasis on the study of scales, intervals, triads, diatonic harmonies, part writing, rhythms, sight singing, ear training, dictation, history and performance, this course includes analysis and composition. This course is required for music majors. Students may wish to challenge the prerequisite on the basis of equivalent experience.

### MUFHL 402
**Music Theory I**  
3 Units  
*Hours: 54 hours LEC*  
**Prerequisite:** None.  
**Corequisite:** MUFHL 403  
**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; UC**  
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. Students will understand the relationship and use of music theory in relationship to cultural and historical periods including its relationship in different musical styles and cultures. 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. (C-ID MUS 120)

### MUFHL 403
**Musicianship I**  
1 Unit  
*Hours: 54 hours LAB*  
**Prerequisite:** None.  
**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 Musicianship I (MUFHL 403).  
**Course Transferable to CSU; UC**  
This course applies and develops the rhythmic, melodic, and harmonic materials of Music Theory I through ear training, sight singing, analysis, and dictation. (C-ID MUS 125)

### MUFHL 404
**Music Theory II**  
3 Units  
*Hours: 54 hours LEC*  
**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; UC**  
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. (C-ID MUS 130)

### MUFHL 405
**Musicianship II**  
1 Unit  
*Hours: 54 hours LAB*  
**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 Musicianship II (MUFHL 405).  
**Course Transferable to CSU; UC**  
This course applies and develops the rhythmic, melodic, and harmonic materials of Music Theory II through ear training, sight singing, analysis, and dictation. (C-ID MUS 135)

### MUFHL 410
**Music Theory and Musicianship III**  
4 Units  
*Hours: 54 hours LEC; 54 hours LAB*  
**Prerequisite:** MUFHL 401 with a grade of “C” or better  
**Corequisite:** MUIVI 350 or 351  
**Course Transferable to CSU; UC**  
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
**Music Theory and Musicianship IV**  
4 Units  
*Hours: 54 hours LEC; 54 hours LAB*  
**Prerequisite:** MUFHL 410 with a grade of “C” or better  
**Advisory:** Concurrent enrollment in MUIVI 351  
**Course Transferable to CSU; UC**  
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 mediant; modulation to foreign keys; and ninth, eleventh and thirteenth chords. Analysis and composition skills will be taught. Musicianship 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
**Music Theory III**  
3 Units  
*Hours: 54 hours LEC*  
**Prerequisite:** MUFHL 404 with a grade of “C” or better  
**Course Transferable to CSU; UC**  
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. (C-ID MUS 140)
MUFHL 413
Musicianship III 1 Unit
Hours: 54 hours LAB
Prerequisite: MUFHL 404 and 405 with grades of “C” or better
Advisory: MUFHL 412; Skills developed concurrently in Music Theory III (MUFHL 412) and in piano study are advised for success in Musicianship III (MUFHL 413).
Course Transferable to CSU; UC
This course applies and develops the rhythmic, melodic, and harmonic materials of Music Theory III through ear training, sight singing, analysis, and dictation. (C-ID MUS 145)

MUFHL 414
Music Theory IV 3 Units
Hours: 54 hours LEC
Prerequisite: MUFHL 412 with a grade of “C” or better
Course Transferable to CSU; UC
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 mediant, 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. (C-ID MUS 150)

MUFHL 415
Musicianship IV 1 Unit
Hours: 54 hours LAB
Prerequisite: MUFHL 412 with a grade of “C” or better
Advisory: MUFHL 414; Skills developed concurrently in Music Theory IV (MUFHL 414) together with continued piano study are advised for success in Musicianship IV. (Piano study may be obtained by enrollment in a CRC piano class, or by individual instruction.)
Course Transferable to CSU; UC
This course applies and develops the rhythmic, melodic, and harmonic materials of Music Theory IV through ear training, sight singing, analysis, and dictation. (C-ID MUS 155)

MUFHL 416
Studies in Contemporary Composition Techniques, Performance, and Literature 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
This course focuses on the creation, performance, and literature of 20th and 21st Century concert music. Students will both create original works and analyze existing compositions as we research trends in art and music. This class will focus primarily on music as it developed and evolved from the European classical tradition and took new shape in the Americas. Topics may include: European classical music heritage, American classical and art music, jazz, film music, European avant garde, world music, and minimalism.

MUFHL 420
Beginning Jazz Theory 2 Units
Hours: 27 hours LEC; 27 hours LAB
Prerequisite: MUFHL 401 with a grade of “C” or better
Advisory: MUIVI 341
Course Transferable to CSU; UC
This course introduces the elements of jazz theory including harmonic, melodic and formal analysis in the jazz idiom.

MUFHL 421
Advanced Jazz Theory 2 Units
Hours: 27 hours LEC; 27 hours LAB
Prerequisite: MUFHL 420 with a grade of “C” or better
Advisory: MUIVI 341
Course Transferable to CSU; UC
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.

MUFHL 495
Independent Studies in Music Fundamentals/History and Literature 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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.

MUFHL 499
Experimental Offering in Music Fundamentals/History and Literature .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB

Music Instrumental/Voice Instruction (MUIVI)

MUIVI 310
Voice Class I 2 Units
Hours: 36 hours LEC; 18 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: CSU Area C1
Students will experience basic training in the correct use of the singing voice, vocal techniques, and repertoire. This course is strongly recommended for vocal majors, but open to all students desiring to begin the study of voice.

MUIVI 311
Voice Class II 2 Units
Hours: 36 hours LEC; 18 hours LAB
Prerequisite: MUIVI 310 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: CSU Area C1
Students will experience basic training in the correct use of the singing voice, vocal techniques, and repertoire. This course is strongly recommended for vocal majors, but open to all students desiring to begin the study of voice.
## MUIVI 320
### Voice Class III
**Hours:** 36 hours LEC; 18 hours LAB  
**Prerequisite:** MUIVI 311 with a grade of “C” or better;  
**Course Transferable to CSU; UC**  
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 strongly recommended for vocal majors. Students may wish to challenge the prerequisite on the basis equivalent experience.

## MUIVI 321
### Voice Class IV
**Hours:** 36 hours LEC; 18 hours LAB  
**Prerequisite:** MUIVI 320 with a grade of “C” or better  
**Course Transferable to CSU; UC**  
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 in and recital is essential. The course is strongly recommended for vocal majors. Students may wish to challenge the prerequisite on the basis of equivalent experience.

## MUIVI 340
### Beginning Piano
**Hours:** 36 hours LEC; 18 hours LAB  
**Prerequisite:** None.  
**Course Transferable to CSU; UC**  
**General Education:** CSU Area C1  
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 341
### Piano II
**Hours:** 36 hours LEC; 18 hours LAB  
**Prerequisite:** MUIVI 340 with a grade of “C” or better; or have beginning training in playing piano, determined by the professor per an evaluation for the level of proficiency.  
**Course Transferable to CSU; UC**  
**General Education:** CSU Area C1  
This is the second in a series of four consecutive group piano classes - successful completion of MUIVI 340 with a “C” or better or a comparable experience is required for enrollment. Students will learn ensemble and solo works, acquire basic rhythmic skills, and will develop fundamental keyboard and music theory skills beyond the major and minor five-note patterns. This course is designed for both music majors planning to transfer as well as for students who are studying primarily for personal enjoyment. Specific skills students will develop include sight reading, improvising, primary root position triads, and hand-over-hand major and minor arpeggios, intervals, fingering, notation, time signatures, dynamics, basic harmonization, major key signatures, and various methods of tone production.

## MUIVI 350
### Intermediate Piano
**Hours:** 36 hours LEC; 18 hours LAB  
**Prerequisite:** MUIVI 341 with a grade of “C” or better  
**Course Transferable to CSU; UC**  
**General Education:** CSU Area C1  
This is the third in a series of four consecutive group piano classes - successful completion of MUIVI 341 with a “C” or better or a comparable experience is required for enrollment. Students will learn ensemble and solo works, develop more complex rhythmic skills, and will develop fundamental keyboard and music theory skills beyond the major and minor five-note patterns. This course is designed for both music majors planning to transfer as well as for students who are studying primarily for personal enjoyment. Specific skills students will develop include sight reading, improvising, primary root position triads, hand-over-hand major and minor arpeggios, intervals, fingering, notation, time signatures, dynamics, basic harmonization, major key signatures, and various methods of tone production.

## MUIVI 351
### Piano IV
**Hours:** 36 hours LEC; 18 hours LAB  
**Prerequisite:** MUIVI 350 with a grade of “C” or better; or have an intermediate training in piano, determined by the professor per an evaluation for the level of proficiency.  
**Course Transferable to CSU; UC**  
**General Education:** CSU Area C1  
This is the fourth in a series of four consecutive group piano classes - successful completion of MUIVI 350 with a “C” or better or a comparable experience is required for enrollment. Students will learn ensemble and solo works, develop more complex rhythmic skills, and will develop fundamental keyboard and music theory skills comparable to advanced level repertoire. This course is designed for both music majors planning to transfer as well as for students who are studying primarily for personal enjoyment. Specific skills students will develop include sight reading, improvising, primary root position triads, hand-over-hand major and minor arpeggios, intervals, fingering, notation, time signatures, dynamics, basic harmonization, major key signatures, and various methods of tone production.

## MUIVI 370
### Beginning Guitar
**Hours:** 36 hours LEC; 18 hours LAB  
**Prerequisite:** None.  
**Course Transferable to CSU; UC**  
**General Education:** CSU Area C1  
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
**Hours:** 36 hours LEC; 18 hours LAB  
**Prerequisite:** MUIVI 370 with a grade of “C” or better  
**Course Transferable to CSU; UC**  
**General Education:** CSU Area C1  
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 2 Units
Hours: 27 hours LEC; 27 hours LAB
Prerequisite: None.
Advisor: Ability to play a melodic instrument or ability to sing; ability to read music.
Course Transferable to CSU; UC
This course is the study of instrumental and vocal application of jazz improvisation.

MUIVI 386
Jazz Styles and Improvisation 2 Units
Hours: 27 hours LEC; 27 hours LAB
Prerequisite: MUIVI 385 with a grade of “C” or better
Course Transferable to CSU; UC
This course is the study of advanced instrumental and vocal applications of jazz improvisation.

MUIVI 410
Applied Music 1 Unit
Hours: 18 hours LEC
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 CSU; UC
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. (C-ID MUS 160)

MUIVI 495
Independent Studies in Music Instrumental/Voice Instruction 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC (Credit for variable topics courses is given only after a review of the scope and content of the course by the enrolling UC campus.)
General Education: CSU Area C1
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 .5-4 Units
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
Hours: 18 hours LEC; 54 hours LAB
Prerequisite: Students should be able to read music and perform on an orchestral instrument (violin, viola, cello, bass, piccolo, flute, clarinet, double reed, trumpet, French horn, trombone, or percussion) that is composed for string orchestra and symphony orchestra, which will be determined by the instructor based upon an audition process.
Enrollment Limitation: Audition required.
Course Transferable to CSU; UC
General Education: CSU Area C1
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. (C-ID MUS 180)

MUP 312
Orchestra 1 Unit
Hours: 9 hours LEC; 27 hours LAB
Prerequisite: None.
Enrollment Limitation: Audition required.
Course Transferable to CSU; UC
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. (C-ID MUS 180)
**MUP 320**  
**Jazz Band** 2 Units  
*Hours: 18 hours LEC; 54 hours LAB*  
*Prerequisite: None.*  
*Course Transferable to CSU; UC*  
*General Education: CSU Area C1*  
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  
*Hours: 54 - 108 hours LAB*  
*Prerequisite: MUP 320 with a grade of "C" or better*  
*Course Transferable to CSU; UC*  
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  
*Hours: 18 hours LEC; 54 hours LAB*  
*Prerequisite: Student should be able to 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). for music that is composed for a concert band, which will be determined by the instructor based upon an audition process.*  
*Course Transferable to CSU; UC*  
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. Public performance 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.  

**MUP 335**  
**Concert Band** 1 Unit  
*Hours: 9 hours LEC; 27 hours LAB*  
*Prerequisite: None.*  
*Course Transferable to CSU; UC*  
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. Public performance 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.  

**MUP 350**  
**Concert Choir I** 2 Units  
*Hours: 18 hours LEC; 54 hours LAB*  
*Prerequisite: None.*  
*Course Transferable to CSU; UC*  
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  
*Hours: 18 hours LEC; 54 hours LAB*  
*Prerequisite: None.*  
*Course Transferable to CSU; UC*  
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 choral 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  
*Hours: 18 hours LEC; 54 hours LAB*  
*Prerequisite: None.*  
*Course Transferable to CSU; UC*  
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 choral 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, Sacramento, or to other universities with a similar transfer requirement.  

**MUP 358**  
**College Chorus Chorale** 1 Unit  
*Hours: 9 hours LEC; 27 hours LAB*  
*Prerequisite: None.*  
*Course Transferable to CSU; UC*  
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 choral 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, Sacramento, or to other universities with a similar transfer requirement.  

**MUP 359**  
**College Chorus Chorale** 1 Unit  
*Hours: 9 hours LEC; 27 hours LAB*  
*Prerequisite: None.*  
*Course Transferable to CSU; UC*  
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 choral 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, Sacramento, or to other universities with a similar transfer requirement.
MUP 360
Chamber Singers 2 Units
Hours: 18 hours LEC; 72 hours LAB
Prerequisite: None.
Advisory: MUP 350 or 357; Students are strongly advised to document previous choral experience.
Enrollment Limitation: Audition required.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1
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 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. (C-ID MUS 180)

MUP 362
Chamber Singers Chorale 1 Unit
Hours: 9 hours LEC; 27 hours LAB
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; UC
General Education: AA/AS Area I
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. (C-ID MUS 180)

MUP 422
Special Ensemble Participation 0.5 - 2 Units
Hours: 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
This course is open to all students who sing, or play a musical instrument. Instrumentation of groups will vary, including jazz combo, piano quintet, guitar ensemble, and related music as well as choral groups.

MUP 424
Commercial Music Ensemble 2 Units
Hours: 18 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: Ability to play at least one instrument or vocalize in a popular style.
Enrollment Limitation: audition/demonstrated instrumental or vocal skill
Course Transferable to CSU
This course involves the rehearsal and performance of contemporary pop and commercial styles, including rock, jazz, rhythm and blues, soul, folk, urban styles, country, and world beat.

MUP 495
Independent Studies in Music Performance 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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.

MUP 499
Experimental Offering in Music Performance .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB

MUSIC SPECIALIZATIONS (MUSM)

MUSM 110
The Business of Music 3 Units
Hours: 54 hours LEC
Prerequisite: None.
This course gives an overview of the processes of the music industry. This includes record contracts as well as the duties and responsibilities of record producers, agents, managers, and performing artists.

MUSM 334
Introduction to Musical Instrument Digital Interface (MIDI) 2 Units
Hours: 9 hours LEC; 81 hours LAB
Prerequisite: None.
Advisory: MUFHL 310 or MUIVI 310
Course Transferable to CSU
General Education: AA/AS Area I
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 346
Audio and Music Production I 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU
This course covers introductory concepts and skill development in audio and music production. Students will work with consumer grade software applications designed to produce music digitally that are either free or come bundled with their laptops. Students will learn how to control this software with consumer grade hardware, such as control surfaces and digital audio interfaces. Students will develop skills in songwriting, music composition, and learn how to prepare written music for a recorded performance. (C-ID CMUS 100X)
MUSM 347
Audio and Music Production II 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
This course covers intermediate and advanced concepts and skill development in digital audio/music production. In Audio and Music Production II, students will build on knowledge acquired in Digital Music I, through their continual practice and work with key, industry-standard professional software environments, such as digital audio workstation and music notation software. Students will continue to hone their skills in songwriting and music composition for other media such as film, gaming, and video. Students will complete original creative musical projects, promote their own work on web sites they create for themselves, place their music on social media platforms, and monetize their creativity on the internet.

MUSM 370
Music for Children 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area I; CSU Area C1
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.

MUSM 495
Independent Studies in Music Specializations 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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 498
Work Experience in Music Specializations 1 - 4 Units
Hours: 60 - 300 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in the field of music.
Course Transferable to CSU
General Education: AA/AS Area III(b) (effective Summer 2019)
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.

MUSM 499
Experimental Offering in Music Specializations in Music 0.5-4 Units
Prerequisite: None
Course Transferable to CSU
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.S.–Nutrition and Foods
A.S.–T– Nutrition and Dietetics

CERTIFICATE OF ACHIEVEMENT
Nutrition and Foods, Community Nutrition

CERTIFICATE OF PROFICIENCY
Plant Based Nutrition and Sustainable Agriculture

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 nutrition 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

ASSOCIATE DEGREES
A.S. in 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 transferable courses.

DEGREE REQUIREMENTS ................................................. UNITS
First Year (Fall):
CHEM 305  Introduction to Chemistry (5) .............. 51
or CHEM 400  General Chemistry I (5)
NUTRI 300  Nutrition ................................... 3
CAM 301  Food Theory and Preparation (4) .......... 4
BIOL 102  Essentials of Human Anatomy and Physiology (4) ........... 4 - 52
or BIOL 430  Anatomy and Physiology (5)
First Year (Spring):
NUTRI 310  Cultural Foods of the World (3) ........... 3
BIOL 310  General Biology ................................. 4
Second Year (Fall):
PSYC 300  General Principles............................. 3
NUTRI 322  Nutrition Issues Throughout Life ........ 3
NUTRI 370  Food Service Management (3) .......... 3
Second Year (Spring):
NUTRI 340  Nutrition and Metabolism ................3
NUTRI 350  Community Nutrition ......................... 3
Total Units: .............................................. 38 - 39

Chem 305, 400 are transferable to CSUS Didactic Program
BIOL 430 - transferable to CSUS Didactic Program

Suggested Electives:
BIOL 440, General Microbiology
ECON 310, Economic Statistics
STAT 300, Introduction to Probability and Statistics

Associate in Science Degree
The Nutrition and Foods Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

1* Chem 305, 400 are transferable to CSUS Didactic Program
2 BIOL 430 - transferable to CSUS Didactic Program
CERTIFICATE OF ACHIEVEMENT
Nutrition and Foods, Community Nutrition Certificate
CODE #1553

This certificate advances student’s understanding of the interaction between nutrition and health. The focus is on community wellness through dietary choices, as they relate to nutrition needs of individuals throughout the lifecycle, cultural influences, community programs targeted at addressing nutrition-related issues and basic food preparation techniques. After completing the classes for this certificate, students may apply credits toward CRC’s Nutrition and Foods associate’s degree program. Students earning this certificate are not qualified to practice medical nutrition therapy.

The Nutrition department offers courses both on-campus and online to accommodate varying students’ needs.

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 transferable courses

CERTIFICATE REQUIREMENTS ............................................. UNITS
NUTRI 300 Nutrition .........................................................3
BIOL 440 General Microbiology ..........................................4
CHEM 400 General Chemistry I .........................................5
PSYC 300 General Principles ..............................................3
List A:
A minimum of 8 units from the following:
CHEM 420 Organic Chemistry I (5)
and BIOL 431 Anatomy and Physiology (5)
or PSYC 330 Introductory Statistics for the Behavioral Sciences (3)
or ECON 310 Economic Statistics (3)
List B:
CHEM 401 General Chemistry II .......................................5

Total Units: ..................................................................... 28

1 If BIOL 430 is selected, BIOL 431 must also be selected as the second course taken.

Associate in Science for Transfer Degree
The Associate in Science in Nutrition and Dietetics for Transfer (AS-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

NUTRITION AND FOODS (NUTRI)

NUTRI 300 Nutrition

3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(b); CSU Area E1

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 nutrients, 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. (C-ID NUTRI 119)
NUTRI 303
Plant-Based Nutrition 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area III(b)
This course studies the science of plant-based nutrition and its application to health promotion, chronic disease reduction and the sustainability of the environment. It examines the sources and functions of micro- and macronutrients in plant foods and how the body digests, absorbs, transports and stores them. Emphasis is placed on the health implications associated with the standard American dietary intake, phytonutrient intake, whole foods/plant foods consumption, the impact of processing, and consequences of under and overconsumption. The course will also include topics on how plant-based nutrition significantly reduces the ecological footprint, how food choice can influence public policy, weight loss, 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 plant-based nutritional health.

NUTRI 310
Cultural Foods of the World 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: LIBR 318
Course Transferable to CSU; UC
General Education: AA/AS Area V(b) (effective Summer 2019); AA/AS Area VI
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 3 Units
Hours: 54 hours LEC
Prerequisite: NUTRI 300 with a grade of “C” or better
Advisory: LIBR 318
Course Transferable to CSU
General Education: AA/AS Area III(b)
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.

NUTRI 331
Plant-Based Food Principles and Preparation 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: ENGW 51 and MATH 20 with grades of “C” or better
Course Transferable to CSU
General Education: AA/AS Area III(b)
This course provides a comprehensive study of plant-based food ingredients and the basic principles and techniques involved in plant-based food preparation. Students will examine the factors that influence taste and the changes that occur in foods during preparation. In the laboratory, basic cooking skills and theoretical applications will be emphasized. Additionally, importance is placed on the reasons for recipe procedures and the prevention and correction of cooking failures.

NUTRI 340
Nutrition and Metabolism 3 Units
Hours: 54 hours LEC
Prerequisite: NUTRI 300 with a grade of “C” or better
Advisory: BIOL 102, BIOL 310, CHEM 307, and LIBR 318
Course Transferable to CSU
This course examines the chemical structure and metabolism of carbohydrate, lipids, and proteins. Emphasis is placed on the biological roles of vitamins and minerals, metabolic pathways and its relation to overall health. In addition, this course will help the student integrate the understanding of metabolic knowledge to contemporary and controversial issues in nutrition.

NUTRI 350
Community Nutrition 3 Units
Hours: 54 hours LEC
Prerequisite: NUTRI 300 with a grade of “C” or better
Advisory: NUTRI 340
Course Transferable to CSU
This course studies the theory, concepts, and philosophy affecting nutrition education and services in the community. Students will be introduced to programs, policies, and institutions that influence nutrition services at local, state and national levels throughout the lifespan, with special emphasis on infants and children as well as the elderly. Students will learn about epidemiology and its application in nutrition research and explore examples of how a variety of teaching methods can improve the nutritional status in a community and with various population groups.

NUTRI 370
Food Service Management 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
The course will study the organization, planning, and control of production for a quantity food service operation. This course also examines the process and importance of food service functions such as leadership, human resource management and employee inservice training, menu planning and pricing, scheduling of staff and production, portion and temperature control, recipe standardization and scaling, basic tenants of food and equipment safety and sanitation, and elements of culinary layout and design.

NUTRI 495
Independent Studies in Nutrition and Foods 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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.

Highlights
• Hands-on experience in community and acute pharmacies
• Preparation for the Pharmacy Technician Certification Exam &/or Pharmacy Technician Certification (CPHT)
• Program is accredited by the American Society of Health-System Pharmacists (ASHP)

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

ASSOCIATE DEGREE
A.S. in Pharmacy Technology

Enrollment Eligibility
To be eligible for enrollment in the program, the student must meet the following criteria:
• The American Society of Health System Pharmacists requires that all students in the program must have a high school diploma or G.E.D.
• Students may enter PHARM 300 and AH 120 without formal acceptance into the Pharmacy Technology Program, however in order to qualify for official acceptance into the Pharmacy Technology Program, and proceed forward to complete the hands-on laboratory training (PHARM 350, 360, 380) and externship training (PHARM 410, 420), students must complete the following prerequisite courses with a grade of C or higher: AH 120 (corequisites BIOL 102 & AH 110), PHARM 300, PHARM 315 and PHARM 320.
• The American Society of Health System Pharmacists requires that all students must be successful in passing a Background Check prior to official acceptance into the Pharmacy Technology Training Program.

Enrollment Process
Eligible students are selected for the program according to the following steps:
• Students should complete all the prerequisite courses with a C grade or better to meet the minimum requirement for acceptance to the Pharmacy Technology Program.
• Qualified students should submit an Application Form electronically and a hard copy to the Pharmacy Technology Program Director after gaining instructor permission for enrollment in the Pharm 315 & 320 classes. Students will be formally notified by a Letter of Acceptance to the Pharmacy Technology Program. Applications will be made available in the Careers and Technology area office.

DEGREE REQUIREMENTS

<table>
<thead>
<tr>
<th>DEGREE REQUIREMENTS</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHARM 300 Introduction to Pharmacy Practice</td>
<td>31</td>
</tr>
<tr>
<td>PHARM 315 Pharmaceutical Calculations</td>
<td>3</td>
</tr>
<tr>
<td>PHARM 320 Pharmacology of Therapeutic Agents</td>
<td>5</td>
</tr>
<tr>
<td>PHARM 350 Pharmaceutical Information Management</td>
<td>3</td>
</tr>
<tr>
<td>PHARM 360 Retail Operation of Pharmaceutical Practice</td>
<td>3</td>
</tr>
<tr>
<td>PHARM 380 Preparation of Pharmaceutical Products</td>
<td>3</td>
</tr>
<tr>
<td>PHARM 400 Pharmacy Technician Profession</td>
<td>1</td>
</tr>
<tr>
<td>PHARM 410 Acute Care Practicum</td>
<td>4</td>
</tr>
<tr>
<td>PHARM 420 Retail Practicum</td>
<td>2</td>
</tr>
<tr>
<td>COMM 301 Introduction to Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Total Units:</td>
<td>30</td>
</tr>
</tbody>
</table>

1 Course can be taken prior to admission into the Pharmacy Technology Program.
2 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, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
PHARMACY TECHNOLOGY (PHARM)

PHARM 300
Introduction to Pharmacy Practice 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
This course introduces the concepts of direct pharmaceutical patient care and the technicians' 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
Hours: 45 hours LEC; 27 hours LAB
Prerequisite: MATH 100 and PHARM 300 with grades of “C” or better
Corequisite: PHARM 320
Course Transferable to CSU
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
Hours: 81 hours LEC; 27 hours LAB
Prerequisite: AH 120 and PHARM 300 with grades of “C” or better
Corequisite: PHARM 315
Advisory: LIBR 318
Course Transferable to CSU
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
Hours: 45 hours LEC; 27 hours LAB
Prerequisite: PHARM 300 with a grade of “C” or better
Advisory: LIBR 318
Course Transferable to CSU
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 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
Hours: 45 hours LEC; 27 hours LAB
Prerequisite: PHARM 300 with a grade of “C” or better
Course Transferable to CSU
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
Hours: 27 hours LEC; 81 hours LAB
Prerequisite: PHARM 300 with a grade of “C” or better
Course Transferable to CSU
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
Hours: 18 hours LEC
Prerequisite: PHARM 315 and 320 with grades of “C” or better
Course Transferable to CSU
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

Hours: 240 hours LAB

Prerequisite: PHARM 350, 380, and 400 with grades of "C" or better

Course Transferable to CSU

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 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

Hours: 120 hours LAB

Prerequisite: PHARM 350, 360, and 400 with grades of "C" or better

Course Transferable to CSU

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
All Human Service Careers

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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area II(b); CSU Area A3; CSU Area C2; IGETC Area 3B
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 Asian Philosophy 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
The application of theories developed by traditional and contemporary moral philosophy to the ethical problems, dilemmas, and issues of today. (C-ID PHIL 120)

PHIL 320
Logic and Critical Reasoning 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area II(b); CSU Area A3
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.
PHIL 325
Symbolic Logic 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(b); CSU Area A2
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.

PHIL 330
History of Classical Philosophy 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
This course is a survey of the origin and development of Western
Philosophy from the period of the ancient Greeks and Romans,
and continuing through the Middle Ages. This course is especially
recommended for all philosophy, history and humanities majors.

PHIL 331
History of Modern Philosophy 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
This course is a survey of the development of Western Philosophy from
the period of the Renaissance through the period of modern Europe
and America. This course is especially recommended for all Philosophy,
History and Humanities majors.

PHIL 338
Contemporary Philosophy 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
A comprehensive study of the basic ideas of pragmatists, twentieth
century metaphysicians, philosophers of language, and existentialists.
Special attention will be given to relevance of their ideas to modern life.

PHIL 350
Philosophy of Religion 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
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,
averism, agnosticism, mysticism, the problem of evil, immortality, the
challenge of science, and religion’s influence on ethics and politics.

PHIL 352
Introduction to World Religions 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C2; IGETC Area 3B
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.

PHIL 356
Introduction to the Bible 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
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 monothelism, 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.

PHIL 360
Social/Political Philosophy 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B
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.

PHIL 495
Independent Studies in Philosophy 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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.

PHIL 499
Experimental Offering in Philosophy .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
DEGREE
A.A. —Photography
A.A. — Art-Photography (see page 104)

CERTIFICATES OF ACHIEVEMENT
Portraiture and Wedding Photography
Commercial and Studio Photography
Photography
Fine Art Photography

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
• 25 Black & White Enlargers
• State of the Art Digital Media Lab
• Flexible and Innovative Studio Bays with Current Image Capture Technology.
• Field Trips to a variety of photographic businesses in Sacramento and the Bay Area.
• Field study courses in Yosemite, the Eastern Sierras, and Monterey.
• Innovative and engaging eight-week course offerings
• 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.
ASSOCIATE DEGREES

A.A. in Photography
CODE #1059

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.

HIGHLIGHTS
*modern lab and studio facilities
*twenty four black & white enlargers
*digital media lab
*digital scanners and printers
*field trips to a variety of photographic businesses in Sacramento and the Bay Area
* field study course in Yosemite
* special seminars and internships

DEGREE REQUIREMENTS .............................................. UNITS
PHOTO 302 Beginning Digital Photography (3) ................... 3
PHOTO 312 Intermediate Digital Photography (3) ............ 3
PHOTO 320 Color Photography (3) ................................ 3
PHOTO 340 Careers in Photography ................................ 3
PHOTO 400 Digital Imaging .......................................... 3
PHOTO 410 Advanced Digital Imaging ............................ 3
PHOTO 420 History of Photography (3) ......................... 3

A minimum of 3 units from the following:
PHOTO 272 Lightroom (1.5)
PHOTO 273 Video Capture with DSLRs (1.5)
PHOTO 275 Digital Applications for Alternative Processes (1.5)
PHOTO 277 Creating a Digital Portfolio (1.5)
PHOTO 271 Color Management (1.5)
PHOTO 260 The Eastern Sierra Landscape, Yosemite Valley (2)
PHOTO 350 Photojournalism (3)
PHOTO 278 Flash Photography (1.5)
COMM 301 Introduction to Public Speaking (3) ............... 3
or COMM 361 The Communication Experience (3) ....... 3
RTVF 302 Introduction to Digital Design & Storytelling (3) .... 3
or RTVF 304 Introduction to Multimedia (3) .................. 3

Total Units: ..................................................................... 33

Suggested Electives:
ACCT 101, 301; ART 300, 301, 320; ARTH 300; CHEM 305; MKT 310;
PHOTO 260, 301, 350, 364, 370, 372, 390, 392; RTVF 302, 304

Associate in Arts Degree
The Photography Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

A.A. in 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 requirements.

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.

DEGREE REQUIREMENTS .............................................. UNITS
ART 300 Drawing and Composition I ................................. 3
PHOTO 301 Beginning Photography (3) ......................... 3
PHOTO 420 History of Photography (3) ......................... 3
PHOTO 310 Intermediate Photography (3) ...................... 3
ARTH 300 Introduction to Art (3) ................................. 3
ART 304 Figure Drawing I (3) ......................................... 3
or ART 361 Printmaking: Survey (3)
PHOTO 320 Color Photography (3) ................................. 3
PHOTO 360 Large Format Photography (3) .................... 3
PHOTO 365 Alternative Process Photography (3) .......... 3
or PHOTO 364 Advanced Black and White Photography (3)

Total Units: ..................................................................... 27

Associate in Arts Degree
The Art-Photo Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE ACHIEVEMENT

Commercial and Studio Photography Certificate
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.

CERTIFICATE REQUIREMENTS ...................................... UNITS
PHOTO 302 Beginning Digital Photography (3) ............. 3
PHOTO 312 Intermediate Digital Photography (3) ....... 3
PHOTO 320 Color Photography (3) ............................... 3
PHOTO 340 Careers in Photography (3) ....................... 3
or PHOTO 400 Digital Imaging (3)
PHOTO 360 Large Format Photography (3) ................. 3
PHOTO 390 Studio Lighting Techniques ....................... 3 - 4
PHOTO 392 Commercial and Advertising Photography .... 3 - 4
PHOTO 410 Advanced Digital Imaging (3) .................... 3
PHOTO 420 History of Photography (3) ....................... 3

A minimum of 3 units from the following:
PHOTO 260 The Eastern Sierra Landscape, Yosemite Valley (2)
PHOTO 271 Color Management (1.5)
PHOTO 272 Lightroom (1.5)
PHOTO 273 Video Capture with DSLRs (1.5)
PHOTO 277 Creating a Digital Portfolio (1.5)
PHOTO 350 Photojournalism (3)
PHOTO 278 Flash Photography (1.5)

Total Units: ..................................................................... 30 - 32
CERTIFICATE OF ACHIEVEMENT
Fine Art Photography Certificate
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.

CERTIFICATE REQUIREMENTS ...................................... UNITS
PHOTO 301 Beginning Photography (3) .................... 3
PHOTO 310 Intermediate Photography (3) ............... 3
or PHOTO 364 Advanced Black and White Photography (3)
PHOTO 320 Color Photography................................ 3
PHOTO 360 Large Format Photography (3) .............. 3
PHOTO 365 Alternative Process Photography (3) ........ 3
or PHOTO 366 Advanced Alternative Process Photography (3)
PHOTO 400 Digital Imaging (3) ............................... 3
PHOTO 420 History of Photography (3) .................... 3

A minimum of 3 units from the following:
PHOTO 260 The Eastern Sierra Landscape, Yosemite Valley (2)
PHOTO 272 Lightroom (1.5)
PHOTO 273 Video Capture with DSLRs (1.5)
PHOTO 275 Digital Applications for Alternative Processes (1.5)
PHOTO 277 Creating a Digital Portfolio (1.5)
PHOTO 350 Photojournalism (3)
PHOTO 278 Flash Photography (1.5)

Total Units: ................................................................. 24

CERTIFICATE OF ACHIEVEMENT
Portraiture and Wedding Photography Certificate
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.

CERTIFICATE REQUIREMENTS ...................................... UNITS
PHOTO 302 Beginning Digital Photography (3) ........... 3
PHOTO 312 Intermediate Digital Photography (3) ....... 3
PHOTO 320 Color Photography................................ 3
PHOTO 340 Careers in Photography (3) ................... 3
or PHOTO 400 Digital Imaging (3)
PHOTO 350 Photojournalism (3) ............................... 3
or PHOTO 410 Advanced Digital Imaging (3)
PHOTO 370 Portraiture and Wedding Photography ....... 3 - 4
PHOTO 372 Advanced Portrait Photography ............... 3 - 4
PHOTO 420 History of Photography (3) .................... 3

A minimum of 3 units from the following:
PHOTO 260 The Eastern Sierra Landscape, Yosemite Valley (2)
PHOTO 272 Lightroom (1.5)
PHOTO 273 Video Capture with DSLRs (1.5)
PHOTO 275 Digital Applications for Alternative Processes (1.5)
PHOTO 277 Creating a Digital Portfolio (1.5)
PHOTO 350 Photojournalism (3)
PHOTO 278 Flash Photography (1.5)

Total Units: ................................................................. 27 - 29

PHOTOGRAPHY (PHOTO)

PHOTO 260
The Eastern Sierra Landscape, Yosemite Valley 2 Units
Hours: 18 hours LEC; 54 hours LAB
Prerequisite: None.
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. This course includes meetings on campus and a field trip to Yosemite.

PHOTO 271
Color Management 1.5 Units
Hours: 18 hours LEC; 27 hours LAB
Prerequisite: PHOTO 302 or 400 with a grade of “C” or better
Advisory: PHOTO 320
This course covers the fundamental principles of color management. Topics of instruction include: calibration, profile generation, color management in Photoshop, and optimizing and preparing images for output to labs. Students will work with digital cameras. The class includes: lectures, lab time, field trips, exams, a journal, and a final project.

PHOTO 272
Lightroom 1.5 Units
Hours: 18 hours LEC; 27 hours LAB
Prerequisite: PHOTO 302 or 400 with a grade of “C” or better
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:

PHOTO 273
Video Capture with DSLRs 1.5 Units
Hours: 18 hours LEC; 27 hours LAB
Prerequisite: PHOTO 302 or 400 with a grade of “C” or better
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.

PHOTO 275
Digital Applications for Alternative Processes 1.5 Units
Hours: 18 hours LEC; 27 hours LAB
Prerequisite: PHOTO 302 or 400 with a grade of “C” or better
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.
PHOTO 277
Creating a Digital Portfolio 1.5 Units
Hours: 18 hours LEC; 27 hours LAB
Prerequisite: PHOTO 301 or 302 with a grade of “C” or better
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.

PHOTO 278
Flash Photography 1.5 Units
Hours: 18 hours LEC; 27 hours LAB
Prerequisite: PHOTO 301 or 302 with a grade of “C” or better
This course covers flash photography using digital cameras. Topics of instruction include: on camera flash, flash with cord, off camera flash and multiple strobe effects. The class includes: lectures, lab time, field trips, a journal, and a final project.

PHOTO 295
Independent Studies in Photography 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
An independent studies course 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 301
Beginning Photography 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1
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.

PHOTO 302
Beginning Digital Photography 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I
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.

PHOTO 310
Intermediate Photography 3 Units
Same As: ARTPH 310
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: ARTPH 301 or PHOTO 301 with a grade of “C” or better
Course Transferable to CSU
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.

PHOTO 312
Intermediate Digital Photography 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: PHOTO 302 with a grade of “C” or better
Course Transferable to CSU; UC
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: PHOTO 302 with a grade of “C” or better
Course Transferable to CSU; UC
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: ARTPH 322 or PHOTO 320 with a grade of “C” or better
Course Transferable to CSU
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: PHOTO 310 or 312 with a grade of “C” or better
Course Transferable to CSU
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, speakers, a required field trip, and lab time. Students will provide their own camera and related materials. (C-ID JOUR 160)

PHOTO 360
Large Format Photography 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: ARTPH 310 or PHOTO 310 with a grade of “C” or better
Course Transferable to CSU
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 course 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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: PHOTO 310 with a grade of “C” or better
Course Transferable to CSU
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 course includes lectures, visual presentations, lab time, exams, and a portfolio.

PHOTO 365
Alternative Process Photography 3 Units
Same As: ARTPH 340
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: ARTPH 301 or PHOTO 301 with a grade of “C” or better
Course Transferable to CSU (Same as ARTPH 340); UC (Same as: ARTPH 340)
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 course includes lectures, visual presentations, lab time, exams, and a portfolio. This course is the same as ARTPH 340.

PHOTO 366
Advanced Alternative Process Photography 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: ARTPH 340 or PHOTO 365 with a grade of “C” or better
Course Transferable to CSU
This course is an advanced study of historical and alternative processes in photography and is designed to expand on the technical and creative concepts acquired in Beginning Alternative Process Photography. Topics of instruction include a deeper investigation of pin hole photography, handmade cameras, historical photographic processes, creating digital negatives and contact printing. Students will also hang a class exhibition. The course includes research, lectures, visual presentations, lab time, exams, and a portfolio. This course is the same as ARTPH 341.

PHOTO 370
Portraiture and Wedding Photography 3 - 4 Units
Hours: 36 hours LEC; 54 - 108 hours LAB
Prerequisite: PHOTO 320 with a grade of “C” or better
Course Transferable to CSU
This course is designed to provide students with an overview of the portraiture and wedding photography business. Topics include: techniques of lighting, use of appropriate cameras and media, professional practices and strategies for beginning business. Students work with digital cameras. The course 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 - 4 Units
Hours: 36 hours LEC; 54 - 108 hours LAB
Prerequisite: PHOTO 320 with a grade of “C” or better
Course Transferable to CSU
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 course includes: lectures, lab time, on-location field trips, exams, and a portfolio geared toward a professional presentation.

PHOTO 390
Studio Lighting Techniques 3 - 4 Units
Hours: 36 hours LEC; 54 - 108 hours LAB
Prerequisite: ARTPH 322 or PHOTO 320 with a grade of “C” or better
Course Transferable to CSU
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 course 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

Hours: 36 hours LEC; 54 - 108 hours LAB
Prerequisite: ARTPH 322 or PHOTO 320 with a grade of “C” or better

Course Transferable to CSU

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

Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.

Course Transferable to CSU

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

Hours: 36 hours LEC; 54 hours LAB
Prerequisite: PHOTO 400 with a grade of “C” or better

Course Transferable to CSU

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

Hours: 54 hours LEC
Prerequisite: None.

Course Transferable to CSU; UC

General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A

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 498
Work Experience in Photography  1 - 4 Units

Hours: 60 - 300 hours LAB
Prerequisite: None.

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

General Education: AA/AS Area III(b)

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

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 — 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 transferrable to the UC and CSU. Labs are offered for astronomy. Both are excellent choices for 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 the lower division requirements for transfer to most universities with a major in Physics.

Science Website: www.crc.losrios.edu/phys-ps-astr

Career Opportunities
After transfer and advanced study:

Physicist    Engineer
Meteorologist    Oceanographer
Geologist    Physical Chemist
Astronomer    Chemist
Architect    Computer Scientist
Pre-Med    Allied Health
Biophysicist    Geophysicist
Astrophysicist

Highlights
• Modern and well-equipped laboratories
• Small class size and ample contact with friendly, knowledgeable instructors
• Evening session calculus-based physics for scientists/engineers sequence completion
• 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

ASSOCIATE DEGREES

A.S. in General Science

Please see page 373 for more information

A.S.-T. in Physics
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.

DEGREE REQUIREMENTS ................................................UNITS

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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<td>Mechanics of Solids and Fluids</td>
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<td>PHYS 421</td>
<td>Electricity and Magnetism</td>
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<td>PHYS 431</td>
<td>Heat, Waves, Light and Modern Physics</td>
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Associate in Science in Physics for Transfer Degree

The Associate in Science in Physics for Transfer (AS-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.
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, because many universities require more lower division courses than those in this degree. Even the CSU’s that accept this transfer degree may likely require more lower division courses to achieve the Bachelor degree. Specifically, courses in general chemistry, differential equations, linear algebra, and computer programming may better prepare the transfer student for certain universities. 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.

A.S. in 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.

DEGREE REQUIREMENTS ........................................... UNITS
CHEM 400 General Chemistry I .......................................................... 5
CHEM 401 General Chemistry II ......................................................... 5
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
PHYS 431 Heat, Waves, Light and Modern Physics ................... 4
Total Units: .................................................................................. 41

Associate Degree
The Physics Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

ASTRONOMY (ASTR)

ASTR 300
Introduction to Astronomy 3 Units
 Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
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
 Hours: 54 hours LAB
Prerequisite: None.
Corequisite: ASTR 300
Course Transferable to CSU; UC
General Education: CSU Area B3; IGETC Area 5C
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
 Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
 Hours: 60 - 300 hours LAB
Prerequisite: None.
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
General Education: AA/AS Area III(b)
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: MATH 100 or 102, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC (1) PHYS 310 and 311 combined: maximum transfer credit of one course; (2) No credit for PHYS 310 or 311 if taken after PHYS 350, 360, 370, 380, 411, 421 or 431)
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
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
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: MATH 335 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC (PHYS 350, 360, 370, 380, 411, 421, 431 combined: maximum transfer credit of one series; deduct credit for duplication of topics)
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
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 105; Part of C-ID PHYS 100S)

PHYS 360
General Physics 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: MATH 350 with a grade of “C” or better
Course Transferable to CSU; UC (PHYS 350, 360, 370, 380, 411, 421, 431 combined: maximum transfer credit of one series; deduct credit for duplication of topics)
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
This course, the second semester of General Physics, is a transferable course required for many life science and other students. Material covered will include classical electricity and magnetism (electrostatics, electric fields and potentials, magnetic fields, electromagnetic induction and electromagnetic radiation), DC and AC circuits, light, geometric and wave optics, special relativity, atomic structure, quantum physics and nuclear physics. (C-ID PHYS 110; Part of C-ID PHYS 100S)

PHYS 370
Introductory Physics - Mechanics and Thermodynamics 5 Units
Hours: 72 hours LEC; 54 hours LAB
Prerequisite: MATH 350 with a grade of “C” or better
Course Transferable to CSU; UC (PHYS 350, 360, 370, 380, 411, 421, 431 combined: maximum transfer credit of one series; deduct credit for duplication of topics)
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
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 105; Part of C-ID PHYS 100S)

PHYS 380
Introductory Physics - Electricity and Magnetism, Light and Modern Physics 5 Units
Hours: 72 hours LEC; 54 hours LAB
Prerequisite: PHYS 370 with a grade of “C” or better
Course Transferable to CSU; UC (PHYS 350, 360, 370, 380, 411, 421, 431 combined: maximum transfer credit of one series; deduct credit for duplication of topics)
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
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 110; C-ID PHYS 100S) (PHYS 370 and 380 must both be completed with “C” or better to complete C-ID PHYS 100S)

PHYS 411
Mechanics of Solids and Fluids 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: MATH 400 with a grade of “C” or better
Course Transferable to CSU; UC (PHYS 350, 360, 370, 380, 411, 421, 431 combined: maximum transfer credit of one series; deduct credit for duplication of topics)
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
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. (C-ID PHYS 205; C-ID PHYS 200S) (PHYS 411, 421, and 431 must all be completed with “C” or better to complete C-ID PHYS 200S)
PHYS 421

Electricity and Magnetism  4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: MATH 401 and PHYS 411 with grades of “C” or better
Course Transferable to CSU; UC (PHYS 350, 360, 370, 380, 411, 421, 431 combined: maximum transfer credit of one series*; deduct credit for duplication of topics)
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
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, computer science and other majors. (C-ID PHYS 210; C-ID PHYS 200S) (PHYS 411, 421, and 431 must all be completed with “C” or better to complete C-ID PHYS 200S)

PHYS 431

Heat, Waves, Light and Modern Physics  4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: MATH 401 and PHYS 411 with grades of “C” or better
Course Transferable to CSU; UC (PHYS 350, 360, 370, 380, 411, 421, 431 combined: maximum transfer credit of one series*; deduct credit for duplication of topics)
General Education: CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
This course examines the fundamentals of thermodynamics, waves and modern physics. Topics include temperature, heat, kinetic theory of gases, thermodynamics, mechanical waves, sound, light reflection and refraction, interference and diffraction, optics, lasers, special relativity, quantum physics, atomic physics, nuclear physics, and particle physics. (C-ID PHYS 215; Part of C-ID PHYS 200S) (PHYS 411, 421, and 431 must all be completed with “C” or better to complete C-ID PHYS 200S)

PHYS 495

Independent Studies in Physics  1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
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
General Education: AA/AS Area III(b)
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.

PHYS 499

Experimental Offering in Physics  .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area IV
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: HORT 300 and PLTS 300
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A; IGETC Area 5C
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. (C-ID AG - PS 128L)

PLTS 332
Integrated Pest Management 3 Units
Same As: HORT 303
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: HORT 300 and PLTS 300
Course Transferable to CSU
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 495
Independent Studies in Plant Science 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
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
General Education: AA/AS Area III(b)
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.

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 and international relations 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
Businessperson
City Planner
Government Worker
Military Officer
Personnel Manager
Research/Research Analyst
Budget Analyst
Campaign Aide/Elected
Foreign Service Officer
Legislative Aide/Lobbyist
Occupational Analyst
Political Scientist

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
Hours: 54 hours LEC
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.
Course Transferable to CSU; UC
General Education: AA/AS Area V(a); CSU Area D8; CSU Area F2; CSU Area F3; IGETC Area 4H

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. (C-ID POLS 110)

POLS 302
Introduction to Government: Foreign 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D8; IGETC Area 4H
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. (C-ID POLS 130)

POLS 304
Introduction to Government: California 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 300
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D; CSU Area F3; IGETC Area 4
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
Hours: 54 hours LEC
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.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D8; IGETC Area 4H
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. (C-ID POLS 140)
POLS 311
International Political Economy 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 300, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: CSU Area D8; IGETC Area 4H
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 101
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D8; IGETC Area 4H
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 Saudi Arabia, Iran, Egypt, Israel, Jordan, Iraq, Syria, and Lebanon. 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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 101
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D8; IGETC Area 4H
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 Unification Process. The 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 314
Modern Europe and the Unification Process 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 101
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D8; IGETC Area 4H
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 101
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D; IGETC Area 4
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 101
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D; IGETC Area 4
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 independence 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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 300
Course Transferable to CSU; UC
General Education: CSU Area D8; IGETC Area 4H

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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 300
Course Transferable to CSU; UC
General Education: CSU Area D8; IGETC Area 4H

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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D8; IGETC Area 4H

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. (C-ID POLS 120)

POLS 324
Revolutions & Ideologies 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 101
Course Transferable to CSU; UC
General Education: CSU Area D8; IGETC Area 4H

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 380
Introduction to Research Design and Methodology 3 Units
Hours: 54 hours LEC
Prerequisite: POLS 301, 302, or 310 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: CSU Area D; IGETC Area 4

This course is designed to introduce students to the political science research process. The course will address research design, quantitative and qualitative analysis and contemporary methodologies. (C-ID POLS 160)

POLS 382
Statistics for Social Science 3 Units
Hours: 54 hours LEC
Prerequisite: MATH 120 or 125 with a grade of “C” or better, or equivalent skills demonstrated through the assessment process.

Course Transferable to CSU

This course focuses upon the concepts and applications of descriptive and inferential statistics in political science and other social sciences. Topics include descriptive statistics, probability and sampling distributions, hypothesis testing, statistical inference, correlation and regression, chi-square, t-tests, and analysis of variance procedures. This course will analyze and interpret social science data sets using both hand computation and statistical software.

POLS 481
Introduction to Government: United States - Honors 3 Units
Same As: HONOR 367
Hours: 54 hours LEC
Prerequisite: None.
Enrollment Limitation: 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.

Course Transferable to CSU; UC
General Education: AA/AS Area V(a)

This course analyzes the U.S. government’s historic origins, philosophical and theoretical justification, constitutional structures and how these institutions work. It examines and describes the procedural aspects of the political system including holding elections, campaigning, voting, lobbying, legislating, executing and adjudicating law. It provides an analysis of contemporary problems and issues. It also describes California state and local governments’ constitutional base, structures and functions, political process, problems and issues. Conducted in a seminar format, this course emphasizes participatory classroom styles of learning and the material used is more substantial and sophisticated. In addition, there are extensive research projects on American institutions, political processes, and political behavior designed to challenge and motivate. This course is not open to students who have completed POLS 301. (C-ID POLS 110)

POLS 495
Independent Studies in Political Science 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU

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
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 certifications 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

A.A.-T. in Psychology

CODE #1961

The Cosumnes River College Psychology Associate of Arts Degree for Transfer Program 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.

DEGREE REQUIREMENTS ........................................... UNITS

<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>
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<tr>
<td>PSYC 320</td>
<td>Social Psychology (3)</td>
<td>3</td>
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<td>or PSYC 371</td>
<td>Life Span Developmental Psychology</td>
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<td>or SOC 300</td>
<td>Introductory Sociology</td>
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<tr>
<td>PSYC 330</td>
<td>Introductory Statistics for the Behavioral Sciences</td>
<td>3</td>
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<tr>
<td>PSYC 335</td>
<td>Research Methods in Psychology</td>
<td>3</td>
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<td>3 units from the following:</td>
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<td></td>
</tr>
<tr>
<td>PSYC 320</td>
<td>Social Psychology (3)</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 340</td>
<td>Abnormal Behavior (3)</td>
<td></td>
</tr>
<tr>
<td>or PSYC 356</td>
<td>Human Sexuality (3)</td>
<td></td>
</tr>
<tr>
<td>or PSYC 368</td>
<td>Cross Cultural Psychology (3)</td>
<td></td>
</tr>
<tr>
<td>or PSYC 371</td>
<td>Life Span Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>Total Units:</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

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.

Associate in Arts in Psychology for Transfer Degree
The Associate in Arts in Psychology for Transfer (AA-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

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.
PSYCHOLOGY (PSYC)

PSYC 300
General Principles 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGRD 310, ENGRD 312, ENGWR 300, ESLR 320, or ESLW 340, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D9; IGETC Area 4I
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. (C-ID PSY 110)

PSYC 312
Biological Psychology 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: PSYC 300 with a grade of “C” or better
Course Transferable to CSU; UC
General Education: AA/AS Area IV; CSU Area B2; CSU Area B3; CSU Area D9; IGETC Area 5B; IGETC Area 5C
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D9; IGETC Area 4I
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
Hours: 54 hours LEC
Prerequisite: MATH 120 or 125 with a grade of “C” or better, or the equivalent.
Course Transferable to CSU; UC
General Education: AA/AS Area III(b); CSU Area B4; IGETC Area 2
This course focuses on the concepts and applications of descriptive and inferential statistics in psychology and other behavioral sciences. Topics include: descriptive statistics; sample spaces and probability; random variables and expected value; discrete and continuous distributions -- binomial, t-tests for two populations; and applications using data from disciplines including business, social sciences, life science, health science, and education; parametric and nonparametric statistical methods, hypothesis testing, statistical inference and p-values, effect size and power; correlation and regression regarding prediction; chi-square; t-tests; and analysis of variance procedures. Application of both hand computation and statistical software (e.g. SPSS) to data in a behavioral and social science contexts will be emphasized to include the interpretation of the relevance of the statistical findings. (C-ID MATH 110)

PSYC 335
Research Methods in Psychology 3 Units
Hours: 54 hours LEC
Prerequisite: PSYC 300 and 330 with grades of “C” or better
Course Transferable to CSU; UC
General Education: AA/AS Area III(b); CSU Area D9; IGETC Area 4I
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area III(b); CSU Area D9; CSU Area E1; IGETC Area 4I
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 356
Human Sexuality 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(b); CSU Area E1; IGETC Area 4I
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 368
Cross Cultural Psychology 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D; IGETC Area 4
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area III(b); CSU Area D9; CSU Area E1; IGETC Area 4I
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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
DEGREE
A.S.-T—Film, Television and Electronic Media for Transfer

AREAS OF STUDY
Advertising / Public Relations
Broadcast Journalism
Digital Media
Film / Digital Cinema Production
Radio Production
Television Production

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, film, broadcasting, broadcast and print journalism, editing, 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

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A.S.-T. in Film, Television and Electronic Media

CODE #2015

The Associate in Science in Film, Television and Electronic Media for Transfer degree provides students with a major that fulfills the general requirements of the California State University for transfer to baccalaureate degree programs in film, television and electronic media. Students with this degree will receive priority admission with junior status to the California State University system. The Associate in Science Degree in Film, Television and Electronic Media for Transfer is comprised of lower division coursework typically required by CSU institutions.

DEGREE REQUIREMENTS .......................................................... UNITS

**Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTVF 300</td>
<td>3</td>
</tr>
<tr>
<td>RTVF 306</td>
<td>3</td>
</tr>
</tbody>
</table>

**List A, Area 1:** Select one audio course (3 units):

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTVF 312: Beginning Radio Production</td>
<td>3</td>
</tr>
<tr>
<td>or RTVF 319: Beginning Audio Production</td>
<td>3</td>
</tr>
</tbody>
</table>

**List A, Area 2:** Select one video or film production course (3 units):

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTVF 330: Beginning Single Camera Production</td>
<td>3</td>
</tr>
<tr>
<td>or RTVF 331: Beginning Television Studio Production</td>
<td>3</td>
</tr>
</tbody>
</table>

**List B:** Select one (3 units):

A minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTVF 350: Intermediate Film/Digital Cinema Production</td>
<td>3</td>
</tr>
</tbody>
</table>

**List C:** Select one course (3 units):

A minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTVF 315: Voice and Diction for Broadcasting</td>
<td>3</td>
</tr>
<tr>
<td>or RTVF 360: Introduction to Motion Graphics: Adobe After Effects</td>
<td>3</td>
</tr>
<tr>
<td>or RTVF 362: Digital Non-Linear Video Editing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units:** .................................................. 18

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1. Or any course not used above. RTVF 330 is a prerequisite to this course and must be taken first.
2. Or any course not used above

Associate in Science for Transfer Degree

The Associate in Science degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.
RTVF 295
Independent Studies in Radio, Television, and Film 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D7; IGETC Area 4J
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)

RTVF 302
Introduction to Digital Design & Storytelling 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area I
The course explores computer-based images, text, graphics, narration, video and music in today’s visual and social media. Students will analyze media literacy, audience, narrative elements, themes and the review of visual media through the lens of story structure.

RTVF 304
Introduction to Multimedia 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: CISC 302 or JOUR 330
Course Transferable to CSU
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
Same As: FMS 305
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 101 with a grade of “C” or better
Course Transferable to CSU
General Education: AA/AS Area I(b)
This course introduces the close analysis of film and television texts to students. It examines the broad questions of form and content, aesthetics and meaning, and history and culture. Students explore the diverse possibilities presented by the cinematic art form through an examination of 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 312
Beginning Radio Production 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU
This is an introductory course in theory and application of audio production techniques for radio. Students will gain a basic understanding of audio equipment in both live and pre-recorded broadcasting. This includes recording equipment, mixers, digital audio production, radio program formats, broadcast writing and announcing skills. This course should be taken prior to Radio Workshop, RTVF 316.
RTVF 315
Voice and Diction for Broadcasting  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
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.

RTVF 316
Introduction to Radio Workshop  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: RTVF 312 or 319
Course Transferable to CSU
Through lectures and supervised labs, this intermediate radio production course explores current radio industry trends and practices. Students in the course will take part in the planning and producing of original radio programs for pod-casting and internet streaming.

RTVF 319
Beginning Audio Production  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU
This course serves as an introduction to the theory and practice of audio production for radio, television, film and digital recording applications. Students will learn the fundamentals of sound design and aesthetics, microphone use, and digital recording equipment. Students gain hands on experience recording, editing, mixing and mastering audio. Upon completion, students will have basic knowledge of applied audio concepts, production workflow, equipment functions, and audio editing software.

RTVF 330
Beginning Single Camera Production  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU
This course provides an introduction to the theory, terminology, and operation of single camera video production, including composition and editing techniques, camera operation, portable lighting, video recorder operation, audio control and basic editing. This course focuses on the aesthetics and fundamentals of scripting, producing, directing on location, post production, and exhibition/distribution. (C-ID FTVE 130)

RTVF 331
Beginning Television Studio Production  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU
This course introduces theory, terminology and operation of a multi-camera television studio and control room. Topics include studio signal flow, directing, theory and operation of camera and audio equipment, switcher operation, fundamentals of lighting, graphics, video control and video recording and real-time video production.

RTVF 340
Television Production Workshop I  2 Units
Hours: 108 hours LAB
Prerequisite: RTVF 331 with a grade of “C” or better
Course Transferable to CSU
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.

RTVF 341
Television Production Workshop II  2 Units
Hours: 108 hours LAB
Prerequisite: RTVF 340 with a grade of “C” or better
Course Transferable to CSU
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.

RTVF 342
Television Production Workshop III  2 Units
Hours: 108 hours LAB
Prerequisite: RTVF 341 with a grade of “C” or better
Course Transferable to CSU
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.

RTVF 343
Television Production Workshop IV  2 Units
Hours: 108 hours LAB
Prerequisite: RTVF 342 with a grade of “C” or better
Course Transferable to CSU
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: RTVF 330 with a grade of “C” or better
Course Transferable to CSU
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 guerilla 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. This course may be taken twice for credit.
RTVF 354
Audio Editing for Film & Video Post Production  3 Units
Hours: 36 hours LEC; 54 hours LAB
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
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 additional fee and take an Apple Certified End User exam at the conclusion of this course.

RTVF 360
Introduction to Motion Graphics: Adobe After Effects  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU
This is an introductory motion graphics course for students interested in digital video, multimedia, 3-D computer animation, and emerging broadcast technologies. Students will gain hands-on experience with picture and video manipulation, 3-D composing, paint and draw applications for film, broadcast, multimedia and the Internet.

RTVF 361
Intermediate Motion Graphics: Adobe After Effects  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: RTVF 360 with a grade of “C” or better
Course Transferable to CSU
The course presents an intermediate level exploration of the theory and practice of animation for video, film and the Internet. Students study the contemporary uses of the techniques of computer animation. Intermediate level skills are developed in Adobe After Effects including advanced techniques of graphic motion over time. Techniques for creating 3-D graphics are explored in depth. Exposure to additional computer applications may include Apple’s Motion, Animation Master or others.

RTVF 362
Digital Non-Linear Video Editing  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU
This course will provide an overview of the theory and practice of nonlinear editing for video and film utilizing nonlinear digital editing work stations. Student will examine the technical and aesthetic requirements of editing through the use of professional film and video dailies. Projects will explore computer graphics, computer animation, audio/visual applications and digital video.

RTVF 365
Intermediate Film & Video Editing  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: RTVF 362 with a grade of “C” or better
Course Transferable to CSU
This course is designed for previous users of non-linear editing software or for those wishing to increase their overall effectiveness with 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.

RTVF 368
Scriptwriting for Film, Video & Multimedia  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 300
Course Transferable to CSU
General Education: AA/AS Area I
Students will learn the mechanics of scriptwriting and formatting used for film and television as well as the writer’s role in pre-production and production. Additionally, students are introduced to non-linear writing for new interactive multimedia technologies.

RTVF 370
Broadcast Writing & Announcing  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU
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  1 Unit
Hours: 18 hours LEC
Prerequisite: RTVF 330 or 331 with a grade of “C” or better
Course Transferable to CSU
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 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 376  
**Advertising**  
3 Units  
*Same As: MKT 314*  
*Hours: 54 hours LEC*  
*Prerequisite: None.*  
*Course Transferable to CSU*  
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**  
3 Units  
*Same As: TA 356*  
*Hours: 36 hours LEC; 54 hours LAB*  
*Prerequisite: RTVF 370 or TA 350 with a grade of “C” or better*  
*Course Transferable to CSU; UC*  
*General Education: CSU Area C1*  
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 380  
**Broadcast Journalism**  
3 Units  
*Hours: 36 hours LEC; 54 hours LAB*  
*Prerequisite: None.*  
*Advisory: JOUR 300, RTVF 362, and RTVF 370; and the ability to type.*  
*Course Transferable to CSU*  
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 498  
**Work Experience in Radio, Television and Film**  
1 - 4 Units  
*Hours: 60 - 300 hours LAB*  
*Prerequisite: None.*  
*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*  
*General Education: AA/AS Area III(b)*  
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*  

RTVF 495  
**Independent Studies in Radio, Television, and Film**  
1 - 3 Units  
*Hours: 54 - 162 hours LAB*  
*Prerequisite: None.*  
*Course Transferable to CSU*  
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. — Radio Production

CERTIFICATES OF ACHIEVEMENT
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
On Air Talent
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

ASSOCIATE DEGREE
A.A. in Radio Production
CODE #1062

DEGREE REQUIREMENTS .................................................. UNITS
RTVF 300 Mass Media and Society ..................................... 3
RTVF 306 Introduction to Media Aesthetics and Cinematic Arts ........................................... 3
RTVF 312 Beginning Radio Production ............................. 3
RTVF 315 Voice and Diction for Broadcasting .................... 3
RTVF 316 Introduction to Radio Workshop ......................... 3
RTVF 319 Beginning Audio Production .............................. 3
RTVF 370 Broadcast Writing & Announcing (3) ................. 3
COMM 301 Introduction to Public Speaking ....................... 3
A minimum of 6 units from the following:
COMM 311 Argumentation and Debate (3)
RTVF 302 Introduction to Digital Design & Storytelling (3)
RTVF 330 Beginning Single Camera Production (3)
RTVF 354 Audio Editing for Film & Video Post Production (3)
RTVF 368 Scriptwriting for Film, Video & Multimedia (3)
RTVF 376 Advertising (3)
RTVF 498 Work Experience in Radio, Television and Film (1 - 4)
Total Units: ........................................................................ 30

Suggested Electives:
INDIS 313, JOUR 320

Associate in Arts Degree
The Radio Production Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Radio Production Certificate
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.

CERTIFICATE REQUIREMENTS .............................................. UNITS
RTVF 300 Mass Media and Society ..................................... 3
RTVF 312 Beginning Radio Production ............................. 3
RTVF 315 Voice and Diction for Broadcasting .................... 3
RTVF 316 Introduction to Radio Workshop ......................... 3
RTVF 319 Beginning Audio Production .............................. 3
A minimum of 3 units from the following:
JOUR 300 Newswriting and Reporting (3)
RTVF 302 Introduction to Digital Design & Storytelling (3)
RTVF 306 Introduction to Media Aesthetics and Cinematic Arts (3)
RTVF 330 Beginning Single Camera Production (3)
RTVF 354 Audio Editing for Film & Video Post Production (3)
RTVF 368 Scriptwriting for Film, Video & Multimedia (3)
RTVF 370 Broadcast Writing & Announcing (3)
Total Units: ........................................................................ 18

Dean
Brian Bedford
Phone
(916) 691-7170
Area Office
CVPA 100A

Counseling
(916) 691-7316
Cooperative Work Experience
(916) 691-7372
DEGREE
A.A. — Real Estate

CERTIFICATE OF ACHIEVEMENT
Real Estate Broker
Real Estate Sales

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 an examination for a Real Estate Salesperson License, an applicant must submit evidence (transcripts) of having completed a college-level course in Real Estate Principles.

In addition to Real Estate Principles the applicant must also (either when qualifying for the examination, when applying for the original license or within eighteen months after license issuance) submit evidence of having completed TWO additional basic real estate courses from the following CRC course offerings. (It is recommended that Real Estate Practice be one of the courses selected.)

• Accounting 301 (1A)
• Business Law 340 (18A)
• Introduction to Escrow Procedures
• Legal Aspects of Real Estate
• Real Property Management
• Real Estate Appraisal
• Real Estate Economics
• Real Estate Finance
• Real Estate Practice

APPLICANTS FOR THE REAL ESTATE BROKER EXAMINATION
An applicant for the Broker examination must have completed eight college-level courses, in addition to the experience/educational requirements. These eight courses should include the following CRC course offerings:

• Real Estate Principles
• Real Estate Practice
• Legal Aspects of Real Estate
• Real Estate Finance
• Real Estate Appraisal
• Real Estate Economics or Accounting 301 (1A)
• and two courses from the following group: *
  • Business Law 340 (18A)
  • Real Property Management
  • Introduction to Escrow Procedures
  • Advanced Appraisal
* If applicant completes both Accounting and Real Estate Economics, only one additional course is required.

ASSOCIATE DEGREE
A.A. in Real Estate
CODE #1223

DEGREE REQUIREMENTS ..............................................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)

– Continued on next page –
**REAL ESTATE (RE)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 110</td>
<td>Legal Aspects of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RE 120</td>
<td>Real Estate Practice</td>
<td>3</td>
</tr>
<tr>
<td>RE 130</td>
<td>Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>RE 140</td>
<td>Real Estate Appraisal</td>
<td>3</td>
</tr>
<tr>
<td>RE 150</td>
<td>Real Estate Economics</td>
<td>3 - 4</td>
</tr>
<tr>
<td>RE 161</td>
<td>Real Property Management</td>
<td>3</td>
</tr>
<tr>
<td>RE 160</td>
<td>Introduction to Escrow Procedures</td>
<td>3</td>
</tr>
<tr>
<td>RE 141</td>
<td>Advanced Escrow Procedures</td>
<td>3</td>
</tr>
<tr>
<td>RE 150</td>
<td>Real Estate Economics (3)</td>
<td>3 - 4</td>
</tr>
<tr>
<td>2019–2020</td>
<td><strong>Total Units:</strong></td>
<td><strong>44 - 46</strong></td>
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**CERTIFICATE REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>RE 300</td>
<td>California Real Estate Principles</td>
</tr>
<tr>
<td>RE 110</td>
<td>Legal Aspects of Real Estate</td>
</tr>
<tr>
<td>RE 120</td>
<td>Real Estate Practice</td>
</tr>
<tr>
<td>RE 130</td>
<td>Real Estate Finance</td>
</tr>
<tr>
<td>RE 140</td>
<td>Real Estate Appraisal</td>
</tr>
<tr>
<td>RE 150</td>
<td>Real Estate Economics</td>
</tr>
<tr>
<td>RE 160</td>
<td>Introduction to Escrow Procedures</td>
</tr>
<tr>
<td>RE 161</td>
<td>Advanced Escrow Procedures</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 141</td>
<td>Advanced Appraisal</td>
</tr>
<tr>
<td>RE 160</td>
<td>Introduction to Escrow Procedures</td>
</tr>
<tr>
<td>RE 161</td>
<td>Advanced Escrow Procedures</td>
</tr>
<tr>
<td>BUS 340</td>
<td>Business Law</td>
</tr>
</tbody>
</table>

**Total Units:** **24 - 25**

**CERTIFICATE OF PROFICIENCY**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 300</td>
<td>California Real Estate Principles</td>
</tr>
<tr>
<td>RE 120</td>
<td>Real Estate Practice</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 110</td>
<td>Legal Aspects of Real Estate</td>
</tr>
<tr>
<td>RE 130</td>
<td>Real Estate Finance</td>
</tr>
<tr>
<td>RE 140</td>
<td>Real Estate Appraisal</td>
</tr>
<tr>
<td>RE 190</td>
<td>Real Property Management</td>
</tr>
</tbody>
</table>

**Total Units:** **9**

---

**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 in Arts Degree**

The Real Estate Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

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**REAL ESTATE (RE)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 161</td>
<td>Advanced Escrow Procedures</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

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**REAL ESTATE (RE)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 161</td>
<td>Advanced Escrow Procedures</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

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**REAL ESTATE (RE)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 141</td>
<td>Advanced Appraisal</td>
</tr>
</tbody>
</table>

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.
### Course Description

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Hours:</th>
<th>Prerequisite:</th>
<th>Course Transferable to CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 150</td>
<td>Real Estate Economics</td>
<td>3</td>
<td>54 LEC; 108 LAB</td>
<td>None</td>
<td>Course Transferable to CSU</td>
</tr>
<tr>
<td>RE 160</td>
<td>Introduction to Escrow Procedures</td>
<td>3</td>
<td>54 LEC</td>
<td>RE 160 with a grade of “C” or better</td>
<td>Course Transferable to CSU</td>
</tr>
<tr>
<td>RE 161</td>
<td>Advanced Escrow Procedures</td>
<td>3</td>
<td>54 LEC</td>
<td>None</td>
<td>Course Transferable to CSU</td>
</tr>
<tr>
<td>RE 190</td>
<td>Real Property Management</td>
<td>3</td>
<td>54 LEC</td>
<td>None</td>
<td>Course Transferable to CSU</td>
</tr>
<tr>
<td>RE 295</td>
<td>Independent Studies in Real Estate</td>
<td>1-3</td>
<td>54 - 162 LAB</td>
<td>None</td>
<td>Course Transferable to CSU</td>
</tr>
<tr>
<td>RE 296</td>
<td>Internship in Real Estate</td>
<td>3</td>
<td>18 LEC; 108 LAB</td>
<td>RE 300 with a grade of “C” or better</td>
<td>Course Transferable to CSU</td>
</tr>
<tr>
<td>RE 299</td>
<td>Experimental Offering in Real Estate</td>
<td>.5-4</td>
<td>18 LEC; 54 LAB</td>
<td>None</td>
<td>Course Transferable to CSU</td>
</tr>
<tr>
<td>RE 300</td>
<td>California Real Estate Principles</td>
<td>3</td>
<td>54 LEC</td>
<td>None</td>
<td>Course Transferable to CSU</td>
</tr>
<tr>
<td>RE 495</td>
<td>Independent Studies in Real Estate</td>
<td>1-3</td>
<td>54 - 162 LAB</td>
<td>None</td>
<td>Course Transferable to CSU</td>
</tr>
<tr>
<td>RE 498</td>
<td>Work Experience in Real Estate</td>
<td>1-4</td>
<td>60 - 300 LAB</td>
<td>None</td>
<td>Course Transferable to CSU</td>
</tr>
<tr>
<td>RE 499</td>
<td>Experimental Offering in Real Estate</td>
<td>.5-4</td>
<td>18 LEC; 54 LAB</td>
<td>None</td>
<td>Course Transferable to CSU</td>
</tr>
</tbody>
</table>

### Course Details

- **RE 150 Real Estate Economics**: 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.

- **RE 160 Introduction to Escrow Procedures**: 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.

- **RE 161 Advanced Escrow Procedures**: 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.

- **RE 190 Real Property Management**: 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.

- **RE 295 Independent Studies in Real Estate**: 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.

- **RE 296 Internship in Real Estate**: This course provides students with a supervised, structured, hands-on experience in real estate sales and introduces/develops the skills necessary to assist them in obtaining employment in the real estate industry. Course content will include understanding the benefits and responsibilities of an internship, developing workplace skills identified by local real estate professionals, applying student learning outcomes to work-related activities, and acquiring/enhancing knowledge of the real estate industry through lecture, textbook readings, and guest speakers. In addition to 18 hours of lecture, the student is required to complete 108 hours of work-related internship over the semester.

- **RE 299 Experimental Offering in Real Estate**: 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 80 hours of unpaid work experience for one unit. An additional 75 or 80 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.

- **RE 300 California Real Estate Principles**: 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.

- **RE 495 Independent Studies in Real Estate**: 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.

- **RE 498 Work Experience in Real Estate**: 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 80 hours of unpaid work experience for one unit. An additional 75 or 80 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.

- **RE 499 Experimental Offering in Real Estate**: 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 80 hours of unpaid work experience for one unit. An additional 75 or 80 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.S. — Science, Environmental Studies & Sustainability
A.S. — Science, General
A.S. — Science, Geography

See also:
Field Data Mapping and Geographic Information Systems (GIS) Sustainability

CERTIFICATE
Sustainability

Areas of Study:
Biology
Chemistry
Engineering
Geology

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

A.S. in Environmental Studies & Sustainability

The Environmental Studies & Sustainability Associate of Science degree is an interdisciplinary and multidisciplinary program 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.

This 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 provide broad-based environmental 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 (http://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.

DEGREE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 302</td>
<td>Environmental Studies &amp; Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 350</td>
<td>Environmental Biology (3)</td>
<td>3</td>
</tr>
<tr>
<td>or BIOL 352</td>
<td>Conservation Biology (3)</td>
<td></td>
</tr>
<tr>
<td>ECON 306</td>
<td>Environmental Economics</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BIOL 390</td>
<td>Natural History Field Study (0.5 - 4)</td>
<td></td>
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<tr>
<td>GEOG 391</td>
<td>Field Studies in Geography:</td>
<td></td>
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<tr>
<td>GEOG 392</td>
<td>Mountain Landscapes (1 - 4)</td>
<td></td>
</tr>
<tr>
<td>GEOG 393</td>
<td>Field Studies in Geography:</td>
<td></td>
</tr>
<tr>
<td>GEOG 394</td>
<td>Arid Landscapes (1 - 4)</td>
<td></td>
</tr>
<tr>
<td>GEOG 395</td>
<td>Field Studies in Geography:</td>
<td></td>
</tr>
<tr>
<td>GEOL 390</td>
<td>Field Studies in Geology (1 - 4)</td>
<td></td>
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<tr>
<td>GEOG 331</td>
<td>Exploring Maps and Geographic Technologies</td>
<td></td>
</tr>
<tr>
<td>GEOG 335</td>
<td>Introduction to Geographic Information Systems</td>
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</table>

A minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 300</td>
<td>The Foundations of Biology (3)</td>
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<tr>
<td>BIOL 307</td>
<td>Biology of Organisms (4)</td>
<td></td>
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<tr>
<td>BIOL 310</td>
<td>General Biology (4)</td>
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</tr>
<tr>
<td>BIOL 400</td>
<td>Principles of Biology (5)</td>
<td></td>
</tr>
</tbody>
</table>

A minimum of 4 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 305</td>
<td>Introduction to Chemistry (5)</td>
<td></td>
</tr>
<tr>
<td>CHEM 321</td>
<td>Environmental Chemistry (3)</td>
<td></td>
</tr>
<tr>
<td>CHEM 322</td>
<td>Environmental Chemistry Laboratory (1)</td>
<td></td>
</tr>
<tr>
<td>CHEM 400</td>
<td>General Chemistry I (5)</td>
<td></td>
</tr>
</tbody>
</table>

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

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

– Continued on next page –
A minimum of 3 units from the following:
GEOG 300 Physical Geography: Exploring Earth’s Environments (3)
GEOG 301 Physical Geography Laboratory (1)
GEOG 305 Global Climate Change (3)
GEOL 300 Physical Geology (3)
GEOL 301 Physical Geology Laboratory (1)

A minimum of 3 units from the following:
ECON 310 Economic Statistics (3)
PSYC 330 Introduction to Statistics for the Behavioral Sciences (3)
STAT 300 Introduction to Probability and Statistics (4)
MATH 350 Calculus for the Life and Social Sciences I (3)
MATH 400 Calculus I (5)
ECON 304 Principles of Microeconomics (3)
GEOG 310 Human Geography: Exploring Earth’s Cultural Landscapes (3)

Total Units: 31

Associate Degree
The Environmental Studies & Sustainability Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

A.S. in General Science
CODE #1229

Degree Requirements

A. Life Science with Lab:
A minimum of 4 units from the following:
ANTH 300 Biological Anthropology (3)
and ANTH 301 Biological Anthropology Laboratory (1)
BIOL 307 Biology of Organisms (4)
BIOL 310 General Biology (4)
BIOL 400 Principles of Biology (5)
BIOL 410 Principles of Botany (5)
BIOL 420 Principles of Zoology (5)
BIOL 430 Anatomy and Physiology (5)
BIOL 431 Anatomy and Physiology (5)
BIOL 440 General Microbiology (4)
CHEM 309 Integrated General, Organic, and Biological Chemistry (5)
CHEM 321 Environmental Chemistry (3)
CHEM 322 Environmental Chemistry Laboratory (1)
CHEM 400 General Chemistry I (5)
CHEM 401 General Chemistry II (5)
CHEM 420 Organic Chemistry I (5)
CHEM 421 Organic Chemistry II (5)
ENGR 304 How Things Work (3)
GEOG 300 Physical Geography: Exploring Earth’s Environmental Systems (3)
GEOG 301 Physical Geography Laboratory (1)
GEOG 305 Global Climate Change (3)
GEOG 306 Weather and Climate (3)
GEOL 300 Physical Geology (3)
GEOL 301 Physical Geology Laboratory (1)
GEOL 305 Earth Science (3)
GEOL 306 Earth Science Laboratory (1)
GEOL 310 Historical Geology (3)
GEOL 311 Historical Geology Laboratory (1)
ENGR 304 How Things Work (3)
PHYS 350 General Physics (4)
PHYS 360 General Physics (4)
PHYS 370 Introductory Physics - Electricity and Magnetism, Light and Modern Physics (5)

B. Physical Science with Lab:
A minimum of 3 units from the following:
ASTR 400 Astronomy Laboratory (1)
and ASTR 300 Introduction to Astronomy (3)
CHEM 300 Beginning Chemistry (4)
CHEM 305 Introduction to Chemistry (5)
CHEM 306 Introduction to Organic and Biological Chemistry (5)
CHEM 309 Integrated General, Organic, and Biological Chemistry (5)
CHEM 322 Environmental Chemistry Laboratory (1)
CHEM 400 General Chemistry I (5)
CHEM 401 General Chemistry II (5)
CHEM 420 Organic Chemistry I (5)
CHEM 421 Organic Chemistry II (5)
ENGR 304 How Things Work (3)
GEOG 300 Physical Geography: Exploring Earth’s Environmental Systems (3)
GEOG 301 Physical Geography Laboratory (1)
GEOG 305 Global Climate Change (3)
GEOG 306 Weather and Climate (3)
GEOL 300 Physical Geology (3)
GEOL 301 Physical Geology Laboratory (1)
GEOL 305 Earth Science (3)
GEOL 306 Earth Science Laboratory (1)
GEOL 310 Historical Geology (3)
GEOL 311 Historical Geology Laboratory (1)
ENGR 304 How Things Work (3)
PHYS 350 General Physics (4)
PHYS 360 General Physics (4)
PHYS 370 Introductory Physics - Electricity and Magnetism, Light and Modern Physics (5)

Total Units: 18

\(^1\) Courses used in A or B above will not count towards C, except units exceeding the 4 or 3 unit minimum in A and B. For example, a student completing the 5 unit CHEM 309 under B could apply 2 of those units towards C. A total of 18 science units is required.

Associate Degree
The General Science Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
Sustainability Certificate

This certificate advances student’s understanding of the principles of sustainability and sustainable practices with respect to ecosystems, green buildings, business, agriculture, nutrition, natural resource management and conservation, waste management, energy, transportation systems, urban planning and design, and more. Theoretical and practical aspects of sustainability are explored including social, economic, and environmental dimensions.

CERTIFICATE REQUIREMENTS .................................................... UNITS
GEOG 302 Environmental Studies & Sustainability ........................ 3
A minimum of 9 units from the following:
ARCH 342 Introduction to Green Buildings (3)
BIOL 350 Environmental Biology (3)
BIOL 352 Conservation Biology (3)
ECON 306 Environmental Economics (3)
GEOG 300 Physical Geography: Exploring Earth’s Environmental Systems (3)
GEOG 305 Global Climate Change (3)
HORT 300 Introduction to Horticulture (3)
HORT 302 Soils, Soil Management, and Plant Nutrition (3)
or PLTS 310 Soils, Soil Management, and Plant Nutrition (3)
HORT 313 Sustainable Agriculture (3)
NUTRI 303 Plant-Based Nutrition (3)
NUTRI 331 Plant-Based Food Principles and Preparation (3)

Total Units: ...................................................................................... 12

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 with relevant work experience and grade point average earned in the chosen specialty, i.e., dental, medical, veterinary, optometry, and/or veterinary.

In addition to a good GPA, a student must be self-motivated, have social concern, communication skills and maturity. An applicant, however, does not need a 4.0 GPA for admission, as a GPA is an impersonal reflection of a student’s ability to handle university work.

Students planning to enroll in a professional health science school may complete at Cosumnes River College:
(1) transfer general education courses,
(2) transfer courses for the student’s chosen major,
(3) a basic core of courses which is required for all health science students, and
(4) other courses required for the chosen specialty, i.e., dental, medical, optometry, and/or veterinary.

The basic core courses are:
BIOL 400, 420
CHEM 400, 401
ENGRWR 300, 301, 302
PHYS 350, 360 or 370, 380
MATH 335, 350 (or high school equivalent)

Pre-Professional Health Science Education Continued

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

A.S. in Geography

Please see page 236 for more information

Pre-Professional Health Science Education Continued

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
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

ASSOCIATE DEGREE
A.A. in Social Science
CODE#1236

DEGREE REQUIREMENTS ......................................................... UNITS
A minimum of 21 units from the following:

Twenty-one (21) units must be completed in at least three different subject areas from those listed: Anthropology, Economics, Geography 310, History, Political Science, Philosophy 360, Psychology, Social Science, 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.

Total Units: ........................................................................... 21

Associate Degree
The Social Science Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

SOCIAL SCIENCE (SOCSC)
SOCSC 495
Independent Studies in Social Science ........................................ 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.

Course Transferable to CSU
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.

Career opportunities listed above require more than two years of college study.

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

A.A.-T. in Sociology

CODE #1965

Cosumnes River College Sociology Associate in Arts for Transfer Program 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.

DEGREE REQUIREMENTS ................................................. UNITS
SOC 300 Introductory Sociology ........................................... 3
SOC 301 Social Problems ..................................................... 3
SOC 302 Introduction to Social Research Methods ................. 3
PSYC 330 Introductory Statistics for the Behavioral Sciences (3) ................................ 3 - 4
or STAT 300 Introduction to Probability and Statistics (4)
A minimum of 6 units from the following:
SOC 305 Critical Thinking in the Social Sciences (3)
SOC 310 Marriage and the Family (3)
SOC 321 Race, Ethnicity and Inequality in the United States (3)
SOC 341 Sex and Gender in the U.S. (3)
Total Units: ........................................................................ 18 - 19

Associate Degree
The Associate in Arts in Sociology for Transfer (AA-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

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”). 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.
SOCIOLOGY (SOC)

SOC 300
Introductory Sociology 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D0; IGETC Area 4J
This course is a study of human behavior in society, including social groups, culture, personality, social stratification, social change, collective behavior and social institutions. (C-ID SOCI 110)

SOC 301
Social Problems 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D0; IGETC Area 4J
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. (C-ID SOCI 115)

SOC 302
Introduction to Social Research Methods 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: SOC 300 with a grade of “C” or better
Advisory: ENGWR 300 (College Composition) or ESLW 340 and STAT 300 with grades of “C” or better
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D; IGETC Area 4
This course examines theoretical and ethical principles in social science research with an applied emphasis on research design, utilization of qualitative and quantitative techniques, data coding, data cleaning and organization, descriptive and inferential analysis, and the writing of research reports. Students will be introduced to the application of statistical software for quantitative areas of course work. (C-ID SOCI 120)

SOC 305
Critical Thinking in the Social Sciences 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 300 or the equivalent
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area A3; CSU Area D
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 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area III(b); CSU Area D7; CSU Area E1; IGETC Area 4G
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 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); AA/AS Area VI; CSU Area D3; IGETC Area 4J
This course is a social profile of major American minority groups. It examines the problems of minority assimilation into an “open” society and culture. (C-ID SOCI 150)

SOC 341
Sex and Gender in the U.S. 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area V(b); CSU Area D4; IGETC Area 4D
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. (C-ID SOCI 140)

SOC 495
Independent Studies in Sociology 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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 .5-4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB
DEGREE:
A.A. — Spanish
A.A.-T - Spanish for Transfer

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

Native speakers of Spanish who have high school-equivalent reading and writing skills should enroll in the Spanish 413 or Spanish 411.

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

ASSOCIATE DEGREES
A.A.-T. in Spanish
CODE #1993

The Associate in Arts in Spanish for Transfer Degree (AA-T) is designed to provide a seamless transfer pathway for students interested in pursuing at least one Spanish 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.

DEGREE REQUIREMENTS

A minimum of 3 units from the following:

SPAN  426  Introduction to Mexican American Literature (3)
SPAN  427  Introduction to Spanish American Literature (3)
HIST  373  History of Mexico (3)
Subtotal Units: 3

OPTION I - Non-Native Spanish Speaker

SPAN  401  Elementary Spanish ............................................. 4
SPAN  402  Elementary Spanish ............................................. 4
SPAN  411  Intermediate Spanish ........................................... 4
SPAN  412  Intermediate Spanish ........................................... 4
OPTION I - Non-Native Spanish Speaker Units: 16
Total Units: 19

OPTION II - Native Spanish Speaker

SPAN  413  Spanish for Native Speakers I ..............................4
SPAN  415  Spanish for Native Speakers II .............................4
A minimum of 8 units from the following:
SPAN  426, 427, and/or HIST 373, if not already used.
SPAN  425  Advanced Reading and Conversation (3)
HUM  331  Latin American Humanities (3)
ENGLT 336 Race and Ethnicity in Contemporary American Literature (3)
HIST  371  History of the Americas from the 19th Century Wars of Independence to the Present (3)

OPTION II - Native Spanish Speaker Units: 16
Total Units: 19

1 SPAN 426 and 427 have a prerequisite of SPAN 412 or 415, so many of the “Option” courses will need to be completed before these courses.

- Continued on next page -
A.A.-T. in Spanish continued

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.

A.A. in Spanish

CODE #1537

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.

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.

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.

Native speakers of the language who have high school - equivalent reading and writing skills in their native language should enroll in the 413 level course (or above) in their native language.

DEGREE REQUIREMENTS ...........................................UNITS
SPAN 401 Elementary Spanish (4) .............8 - 16
and SPAN 402 Elementary Spanish (4)
and SPAN 411 Intermediate Spanish (4)
and SPAN 412 Intermediate Spanish (4)
or SPAN 413 Spanish for Native Speakers I (4)
and SPAN 415 Spanish for Native Speakers II (4)
A minimum of 10 units from the following:
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)
SPAN 434 Spanish for the Professions - Intermediate (3)
Total Units: ................................................................. 18 - 26

SPANISH (SPAN)

SPAN 101
Conversational Spanish, Elementary 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
General Education: AA/AS Area I
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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: SPAN 101 with a grade of “C” or better
General Education: AA/AS Area I
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 299
Experimental Offering in Spanish .5-4 Units
Prerequisite: None.
Hours: 18 hours LEC; 54 hours LAB

SPAN 311
Conversational Spanish, Intermediate 2 Units
Hours: 18 hours LEC; 54 hours LAB
Prerequisite: SPAN 102 or 401 with a grade of “C” or better; or two years of high school Spanish
Course Transferable to CSU
This is a conversational course designed for students who have completed SPAN 102 or two years of high school Spanish. Refining skills obtained in previous coursework, students will continue to build their communication skills including listening, reading and speech. Students will develop the ability to respond to new, unprepared, and somewhat complex situations. They will be expected to understand the geography, culture and people of regions where Spanish is spoken and to 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  
Hours: 18 hours LEC; 54 hours LAB  
Prerequisite: SPAN 311 or 402 with a grade of “C” or better; or three years of high school Spanish  
Course Transferable to CSU; UC  
This is second semester Intermediate Spanish. This is a conversation course designed for students who have completed SPAN 311 or SPAN 402 or three years of high school Spanish. Continuing to refine skills obtained in previous coursework, students will continue to build their communication skills including listening, reading and speech. Students will develop the ability to respond in an unrehearsed manner on concrete topics in known situations. Students will be exposed to the geography, culture and people of regions where Spanish is spoken and to Spanish-speakers’ contributions to North American and world cultures. This course will consist of one hour of lecture and three hours of laboratory work conducted in the classroom and one hour of laboratory work conducted in the Language Laboratory each week.

SPAN 401  
Elementary Spanish  
4 Units  
Hours: 54 hours LEC; 54 hours LAB  
Prerequisite: None.  
Course Transferable to CSU; UC  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 6  
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. (C-ID SPAN 100)

SPAN 402  
Elementary Spanish  
4 Units  
Hours: 54 hours LEC; 54 hours LAB  
Prerequisite: SPAN 401 with a grade of “C” or better  
Course Transferable to CSU; UC (SPAN 402 and 413 combined: maximum transfer credit is one course)  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 6  
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  
Hours: 54 hours LEC; 54 hours LAB  
Prerequisite: SPAN 402 with a grade of “C” or better  
Course Transferable to CSU; UC  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6  
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  
Hours: 54 hours LEC; 54 hours LAB  
Prerequisite: SPAN 411 with a grade of “C” or better  
Course Transferable to CSU; UC  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6  
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. (C-ID SPAN 210)

SPAN 413  
Spanish for Native Speakers I  
4 Units  
Hours: 72 hours LEC  
Prerequisite: Spanish native speaker proficiency or the equivalent intermediate level as assessed by the instructor.  
Course Transferable to CSU; UC (SPAN 402 and 413 combined: maximum transfer credit is one course)  
General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6  
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. (C-ID SPAN 220)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 415</td>
<td>Spanish for Native Speakers II</td>
<td>4</td>
<td>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. (C-ID SPAN 230)</td>
</tr>
<tr>
<td>SPAN 423</td>
<td>Contrastive Grammar of English-Spanish I</td>
<td>1.5</td>
<td>This course presents part one of the essential elements of Spanish grammar side by side with their grammatical equivalent in English. It allows native Spanish-speakers and advanced Spanish learners to compare and contrast the grammars of both languages at a glance. It focuses upon the development of analytical abilities by presenting the interlingual differences between Spanish and English in a simple and direct way. Students will be provided with numerous exercises, through which the nature of such differences can be readily perceived and acted upon. This course will begin with an overview of grammatical terminology and sentence structure in both languages.</td>
</tr>
<tr>
<td>SPAN 424</td>
<td>Contrastive Grammar of English-Spanish II</td>
<td>1.5</td>
<td>This course presents part two of the essential elements of Spanish grammar side by side with their grammatical equivalent in English. It allows native Spanish-speakers and advanced Spanish learners to compare and contrast the grammars of both languages at a glance. It focuses upon the development of analytical abilities by presenting the interlingual differences between Spanish and English in a simple and direct way. Students will be provided with numerous exercises, through which the nature of such differences can be readily perceived and acted upon.</td>
</tr>
<tr>
<td>SPAN 425</td>
<td>Advanced Reading and Conversation</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>SPAN 426</td>
<td>Introduction to Mexican American Literature</td>
<td>3</td>
<td>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 is given to understanding the interplay between the Hispanic experience and the cultural context in which it was created. The course will introduce students to important authors and their works.</td>
</tr>
<tr>
<td>SPAN 427</td>
<td>Introduction to Spanish American Literature</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>SPAN 434</td>
<td>Spanish for the Professions - Intermediate</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>SPAN 495</td>
<td>Independent Studies in Spanish</td>
<td>1-3</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>SPAN 499</td>
<td>Experimental Offering in Spanish</td>
<td>.5-4</td>
<td>This course 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.</td>
</tr>
</tbody>
</table>
Program Description
Leadership is a rewarding challenge that greatly enhances college life. Leadership courses taught through the Student Life and Leadership Center are designed to help students develop their skills, knowledge, and abilities 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 Clubs and Events Board, Student Senate, and/or college committees. Participation in the program does not require the student to hold an elected position in student government.

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](http://www.crc.losrios.edu/pslo)

### STUDENT GOVERNMENT (SGVT)

**SGVT 300**
Introduction to Student Government 2 Units
Hours: 18 hours LEC, 54 hours LAB
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area III(b)
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
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area III(b)
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
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 ACHIEVEMENT
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
Non-Linear Video Editors
Broadcast Technician
Personal or Corporate Video
DVD, TV, Film Producer/Director

• Practical experience working in the campus television studio
• 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 multiple cameras, switcher, character generator and teleprompter
• State of the art digital computer lab for graphics and non-linear editing

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/pсло

ASSOCIATE DEGREE
A.A. in Television Production
CODE #1063

DEGREE REQUIREMENTS .................................................................. UNITS
RTVF 300  Mass Media and Society .............................................. 3
RTVF 306  Introduction to Media Aesthetics and Cinematic Arts ..... 3
RTVF 330  Beginning Single Camera Production ......................... 3
RTVF 331  Beginning Television Studio Production ..................... 3
RTVF 340  Television Production Workshop I ............................... 2
RTVF 360  Introduction to Motion Graphics: Adobe After Effects .... 3
RTVF 362  Digital Non-Linear Video Editing (3) ............................. 3
RTVF 370  Broadcast Writing & Announcing (3) ............................ 3
RTVF 380  Broadcast Journalism (3) ......................................... 3
or RTVF 380  Broadcast Journalism (3)

A minimum of 6 units from the following:
RTVF 304  Introduction to Multimedia (3)
RTVF 312  Beginning Radio Production (3)
RTVF 315  Voice and Diction for Broadcasting (3)
RTVF 319  Beginning Audio Production (3)
RTVF 341  Television Production Workshop II (2)
RTVF 342  Television Production Workshop III (2)
RTVF 354  Audio Editing for Film & Video Post Production (3)
RTVF 361  Intermediate Motion Graphics: Adobe After Effects (3)
RTVF 365  Intermediate Film & Video Editing (3)
RTVF 371  Hollywood TV and Film Studios: A Behind the Scenes Experience (1)
RTVF 376  Advertising (3)
RTVF 498  Work Experience in Radio, Television and Film (1 - 4)
MKT 310  Selling Professionally (3)

Total Units: .................................................................................. 29

Associate in Arts Degree
The Television Production Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Television Production Certificate
CODE #1063

CERTIFICATE REQUIREMENTS ................................................... UNITS
RTVF 330  Beginning Single Camera Production ......................... 3
RTVF 331  Beginning Television Studio Production ..................... 3
RTVF 340  Television Production Workshop I ............................... 2
RTVF 360  Introduction to Motion Graphics: Adobe After Effects .... 3
RTVF 341  Television Production Workshop II (2)
RTVF 354  Audio Editing for Film & Video Post Production (3)
RTVF 361  Intermediate Motion Graphics: Adobe After Effects (3)
RTVF 362  Digital Non-Linear Video Editing (3)
RTVF 365  Intermediate Film & Video Editing (3)
RTVF 376  Advertising (3)
RTVF 498  Work Experience in Radio, Television and Film (1 - 4)

Total Units: .................................................................................. 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
Teaching
Design for the Theatre
Box Office Management
Publicity and Public Relations
Theatre Technician/Stage 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

ASSOCIATE DEGREES
A.A.-T. in Theatre Arts

CODE # 1977

The Cosumnes River Theatre Department Associate of Arts Degree for Transfer Program is designed to facilitate successful transfer to baccalaureate theatre or drama degree programs. This degree provides students with the lower division breadth and depth of the field of theatre arts. Additionally, this degree exposes students to the core principles and practices in the field. Students will learn: the basics of acting, the basics of theatre technology and production, and where theatre fits in to both the historical and modern world of entertainment.

DEGREE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>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</td>
<td>3</td>
</tr>
</tbody>
</table>

A minimum of 3 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAP 300</td>
<td>Modern Rehearsal and Performance I (1 - 3)</td>
</tr>
<tr>
<td>or TAP 320</td>
<td>Classical Rehearsal and Performance I (1 - 3)</td>
</tr>
<tr>
<td>or TAP 340</td>
<td>Musical Rehearsal and Performance I (1 - 3)</td>
</tr>
<tr>
<td>or TAP 360</td>
<td>Children’s Theatre Rehearsal and Performance I (1 - 3)</td>
</tr>
<tr>
<td>TAP 310</td>
<td>Modern Technical Production I (1 - 3)</td>
</tr>
<tr>
<td>or TAP 330</td>
<td>Classical Technical Production I (1 - 3)</td>
</tr>
<tr>
<td>or TAP 350</td>
<td>Musical Technical Production I (1 - 3)</td>
</tr>
<tr>
<td>or TAP 370</td>
<td>Children’s Theatre Technical Production I (1 - 3)</td>
</tr>
</tbody>
</table>

A minimum of 9 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 305</td>
<td>Script Analysis (3)</td>
</tr>
<tr>
<td>TA 351</td>
<td>Theory and Techniques of Acting II (3)</td>
</tr>
<tr>
<td>TA 420</td>
<td>Stagecraft (3)</td>
</tr>
<tr>
<td>TA 422</td>
<td>Stage Lighting (3)</td>
</tr>
<tr>
<td>TA 430</td>
<td>Costume Construction (3)</td>
</tr>
<tr>
<td>TAP 320</td>
<td>Classical Rehearsal and Performance I (1 - 3)</td>
</tr>
<tr>
<td>or TAP 330</td>
<td>Classical Technical Production I (1 - 3)</td>
</tr>
<tr>
<td>or TAP 340</td>
<td>Musical Rehearsal and Performance I (1 - 3)</td>
</tr>
<tr>
<td>or TAP 350</td>
<td>Musical Technical Production I (1 - 3)</td>
</tr>
</tbody>
</table>

Total Units: 18

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 for Transfer Degree

The Associate in Arts in Theatre Arts for Transfer (AA-T) degree may be obtained by completion of 60 transferable, semester units with a minimum 2.0 GPA, including (a) the major or area of emphasis described in the Required Program, and (b) either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.
A.A. in Theatre Arts
CODE #1239

The two-year degree in Theatre Arts is a comprehensive program in theater that combines a critical study of theatre with experiential practice in one or more of its component parts. Students explore the various areas of theater to build a foundation for future creative work. The theatre arts degree will provide training in theatre arts production for students who intend to pursue study beyond the AA degree, who are preparing for careers in teaching or in the professional theatre. The basic program also provides an opportunity for specialization in Performance or Design/Technology. A Certificate of Achievement in Theatre for Young Audiences is also available for students whose interest is in doing theatre with or for children.

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 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, as programs vary widely in terms of the required preparation.

DEGREE REQUIREMENTS .................................................................UNITS
TA 300 Introduction to the Theatre ..................................................3
or TA 302 History and Theory of the Theatre I (3)
TA 305 Script Analysis .................................................................3
TA 350 Theory and Techniques of Acting ........................................3
TA 420 Stagecraft .................................................................3
A minimum of 3 units from the following:
TAP 300 Modern Rehearsal and Performance I (1-3)
TAP 301 Modern Rehearsal and Performance II (1-3)
TAP 302 Modern Rehearsal and Performance III (1-3)
TAP 303 Modern Rehearsal and Performance IV (1-3)
TAP 320 Classical Rehearsal and Performance I (1-3)
TAP 321 Classical Rehearsal and Performance II (1-3)
TAP 322 Classical Rehearsal and Performance III (1-3)
TAP 323 Classical Rehearsal and Performance IV (1-3)
TAP 340 Musical Rehearsal and Performance I (1-3)
TAP 341 Musical Rehearsal and Performance II (1-3)
TAP 342 Musical Rehearsal and Performance III (1-3)
TAP 343 Musical Rehearsal and Performance IV (1-3)
TAP 360 Children's Theatre Rehearsal and Performance I (1-3)
TAP 361 Children's Theatre Rehearsal and Performance II (1-3)
TAP 362 Children's Theatre Rehearsal and Performance III (1-3)
TAP 363 Children's Theatre Rehearsal and Performance IV (1-3)

A minimum of 6 units from the following:
TAP 310 Modern Technical Production I (1-3)
TAP 311 Modern Technical Production II (1-3)
TAP 312 Modern Technical Production III (1-3)
TAP 313 Modern Technical Production IV (1-3)
TAP 330 Classical Technical Production I (1-3)
TAP 331 Classical Technical Production II (1-3)
TAP 332 Classical Technical Production III (1-3)
TAP 333 Classical Technical Production IV (1-3)
TAP 350 Musical Technical Production I (1-3)
TAP 351 Musical Technical Production II (1-3)
TAP 352 Musical Technical Production III (1-3)
TAP 353 Musical Technical Production IV (1-3)
TAP 370 Children's Theatre Technical Production I (1-3)
TAP 371 Children's Theatre Technical Production II (1-3)
TAP 372 Children's Theatre Technical Production III (1-3)
TAP 373 Children's Theatre Technical Production IV (1-3)

Subtotal Units: .............................................................................. 18

Acting/Performance Track
A minimum of 6 units from the following:
TA 351 Theory and Techniques of Acting II (3)
TA 356 Acting for the Camera I (3)
TA 360 Styles of Acting ...............................................................3
TA 401 Children's Literature and Creative Drama .........................3
TA 498 Work Experience in Theatre Arts (1-4)
Acting/Performance Track Units: ..................................................... 6
Total Units: .................................................................................. 24

Technical Theater Track
A minimum of 6 units from the following:
TA 422 Stage Lighting .................................................................3
TA 424 Advanced Technical Theatre ..............................................3
TA 430 Costume Construction .....................................................3
TA 404 Techniques of Puppetry ....................................................3
TA 498 Work Experience in Theatre Arts (1-4)
Technical Theater Track Units: ......................................................... 6
Total Units: .................................................................................. 24

Associate in Arts Degree
The Theatre Arts Associate in Arts (A.A.) degree may be obtained by completion of 60 transferable, semester units, including (a) the major or area of emphasis described in the Required Program, and (b) one of the following: the CRC General Education, the Intersegmental General Education Transfer Curriculum (IGETC), or the California State University General Education-Breadth Requirements.

CERTIFICATE
Theatre for Young Audiences Certificate
CODE #1989

The Certificate in Children's Theatre focuses on building skills in puppetry, storytelling, Story Dramatization, creative drama in the classroom and other skills pertaining to children's theatre. This certificate allows the student to further their education with transferable theatre classes.

CERTIFICATE REQUIREMENTS ......................................................UNITS
TA 401 Children's Literature and Creative Drama .........................3
TA 404 Techniques of Puppetry .....................................................3
TA 344 Improvisation and Theatre Games .....................................2
A minimum of 3 units from the following:
TAP 360 Children's Theatre Rehearsal and Performance I (1-3)
TAP 361 Children's Theatre Rehearsal and Performance II (1-3)
TAP 362 Children's Theatre Rehearsal and Performance III (1-3)
TAP 363 Children's Theatre Rehearsal and Performance IV (1-3)
Total Units: .................................................................................. 11

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.
THEATRE ARTS (TA)

TA 300
Introduction to the Theatre 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
This course will increase students' understanding, appreciation, and critical perceptions of theatre arts. Students will be introduced to elements of the production process including play writing, 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. Students will examine the relationship of theatre to various cultures throughout history, and the contributions of significant individual theatre artists. It is an audience-oriented, non-performance theatre arts course open to all students. (C-ID THTR 111)

TA 302
History and Theory of the Theatre I 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 101, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
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 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 101, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1; IGETC Area 3A
This course is a survey of the history of theater from the 17th Century through modern times. This history and development of theatre 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.

TA 305
Script Analysis 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: CSU Area C1; IGETC Area 3A
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. (C-ID THTR 114)

TA 306
Diversity in American Drama (1960 to Present) 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; AA/AS Area VI; CSU Area C1; CSU Area D3; IGETC Area 3A; IGETC Area 4C
This multicultural course surveys the theatrical expression of Native-American, African-American, Chicana/Chicano, and Asian-American theatre from 1960 to the present, including the social, political, cultural, and economic climate in which the theatre was created.

TA 340
Beginning Acting 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
This course introduces the student to the basic art and craft of acting. Basic exercises in voice and diction, movement, and character will be utilized.

TA 344
Improvisation and Theatre Games 2 Units
Hours: 36 hours LEC
Prerequisite: None.
Course Transferable to CSU
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.

TA 350
Theory and Techniques of Acting I 3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C1
This course explores the theories and techniques used in the preparation of a role for the stage. American realistic scenes and monologues are staged and performed in the classroom. The emphasis will be placed on broadening the understanding of the acting process. (C-ID THTR 151)

TA 351
Theory and Techniques of Acting II 3 Units
Hours: 54 hours LEC
Prerequisite: TA 350 with a grade of “C” or better
Advisory: ENGWR 300
Course Transferable to CSU; UC
This course follows TA 350 and continues the exploration of the theories and techniques used in the preparation of a role for the stage. A variety of scenes and monologues are staged and performed in the classroom. An emphasis will be placed on deepening the understanding of the acting process. The student actor is encouraged to explore and expand the range and flexibility of their individual acting process. Student actors are required to participate in a student showcase performance at the end of each semester. (C-ID THTR 152)
TA 356
Acting for the Camera I  3 Units
Same As: RTVF 378
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: RTVF 370 or TA 350 with a grade of “C” or better
Course Transferable to CSU; UC
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.

TA 360
Styles of Acting  3 Units
Hours: 54 hours LEC
Prerequisite: TA 350 with a grade of “C” or better
Course Transferable to CSU; UC
Students will study and practice radically different styles of acting (historical, literary, fantastical) and characterizations; scene work is presented in a variety of historical periods (Greek, Commedia, Elizabethan, Molière, Restoration, Belle Epoque), as well as modern hyper-realistic theatrical forms such as the theatres of alienation and the absurd, and exemplary recent dramas by Tony Kushner, Margaret Edson, August Wilson and Doug Wright. The instructor may concentrate on selected periods. Students may wish to challenge the prerequisite on the basis of equivalent experience.

TA 395
Playwriting  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Advisory: ENGWR 300, or equivalent skills demonstrated through the assessment process.
Course Transferable to CSU
This course includes the writing, reading, performance, critique and continuous revision of original work. Students will write continually throughout the semester, and their work will be read, performed, and discussed in class. Students will complete a full-length play by the end of the semester.

TA 401
Children’s Literature and Creative Drama  3 Units
Hours: 54 hours LEC
Prerequisite: None.
Course Transferable to CSU
General Education: AA/AS Area I; CSU Area C1
This course examines teaching strategies and techniques for introducing children to drama and theatre. This course will introduce the students to children’s dramatic literature and creative drama in the classroom. Encouraging both teacher and student imagination and expression, the course helps future teachers, service providers and/or recreational leaders integrate drama into their programs and classrooms. Students will be introduced to a variety of genres and strategies for incorporating drama into their programs, including mime, dramatic play, improvisation, and dramatic literature. The course focuses on drama as an art form as well as a teaching tool.

TA 404
Techniques of Puppetry  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU
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.

TA 420
Stagecraft  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
This course is an introduction to technical theatre and the creation of scenic elements. Includes basic concepts of design, painting techniques, set construction, set movement, prop construction, backstage organization, and career possibilities. Also included in this class is an introduction to theatrical construction and painting techniques; types of theatrical scenery and backstage organization. These topics are explored through a combination of lecture and practical experience gained by working on department productions. (C-ID THTR 171)

TA 422
Stage Lighting  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
This course is an introduction to basic concepts of stage lighting, including planning, rigging and operations of lighting systems; optics, equipment, electricity, control and color; basic lighting design. (C-ID THTR 173)

TA 424
Advanced Technical Theatre  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: TA 420 and 422 with grades of “C” or better
Course Transferable to CSU
This course will explore advanced technical theatre production techniques and design in the areas of scenery, props, lighting, sound, scenic painting, rigging or stage management, costumes through individual projects and participation in major productions.

TA 430
Costume Construction  3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Course Transferable to CSU; UC
This course explores the basic areas of costume construction. Topics include fabrics, color, patterns, sewing techniques, costume pieces, and accessories. Period styles, costume analysis, and basic design are also covered. This course offers experience in constructing costumes for theatrical productions. Through the construction of costumes for the Theatre Arts productions students will learn techniques of pattern drafting and sewing for stage use. (C-ID THTR 174)
TA 495
Independent Studies in Theatre Arts  1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Course Transferable to CSU
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.

TA 498
Work Experience in Theatre Arts  1 - 4 Units
Hours: 60 - 300 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Theatre Arts.
Course Transferable to CSU
General Education: AA/AS Area III(b)
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.

TA 499
Experimental Offering in Theatre Arts  .5 - 4 Units
Prerequisite: None
Course Transferable to CSU
See UC Limitations & Counselor
Hours: 18 hours LEC; 54 hours LAB

THEATRE ARTS PERFORMANCE (TAP)

TAP 300
Modern Rehearsal and Performance I  1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Enrollment Limitation: Audition
Course Transferable to CSU; UC
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 Technical Production I  1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Enrollment Limitation: Interview
Course Transferable to CSU; UC
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
Hours: 54 - 162 hours LAB
Prerequisite: TAP 310 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to CSU; UC
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
Hours: 54 - 162 hours LAB
Prerequisite: TAP 311 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to CSU; UC
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
Hours: 54 - 162 hours LAB
Prerequisite: TAP 312 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to CSU; UC
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Enrollment Limitation: Audition
Course Transferable to CSU; UC
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
Hours: 54 - 162 hours LAB
Prerequisite: TAP 320 with a grade of “C” or better
Enrollment Limitation: Audition
Course Transferable to CSU; UC
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
Hours: 54 - 162 hours LAB
Prerequisite: TAP 321 with a grade of “C” or better
Enrollment Limitation: Audition
Course Transferable to CSU; UC
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
Hours: 54 - 162 hours LAB
Prerequisite: TAP 322 with a grade of “C” or better
Enrollment Limitation: Audition
Course Transferable to CSU; UC
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)
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<td>TAP 330</td>
<td>Classical Technical Production I</td>
<td>1 - 3</td>
<td>TAP 330 with a grade of “C” or better</td>
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<td>TAP 340</td>
<td>Musical Rehearsal and Performance I</td>
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<td>TAP 340 with a grade of “C” or better</td>
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<td>TAP 333</td>
<td>Classical Technical Production IV</td>
<td>1 - 3</td>
<td>TAP 332 with a grade of “C” or better</td>
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<td>TAP 341</td>
<td>Musical Rehearsal and Performance II</td>
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<td>TAP 341 with a grade of “C” or better</td>
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<td>TAP 332</td>
<td>Classical Technical Production II</td>
<td>1 - 3</td>
<td>TAP 331 with a grade of “C” or better</td>
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<td>TAP 342</td>
<td>Musical Rehearsal and Performance III</td>
<td>1 - 3</td>
<td>TAP 341 with a grade of “C” or better</td>
<td>Audition</td>
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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 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. (C-ID THTR 191)
TAP 343
Musical Rehearsal and Performance IV 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: TAP 342 with a grade of “C” or better
Enrollment Limitation: Audition
Course Transferable to CSU; UC
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
Enrollment Limitation: Interview
Course Transferable to CSU; UC
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.

TAP 351
Musical Technical Production II 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: TAP 350 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to CSU; UC
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.

TAP 360
Children’s Theatre Rehearsal and Performance I 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: None.
Enrollment Limitation: Audition
Course Transferable to CSU; UC
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. (C-ID THTR 191)

TAP 361
Children’s Theatre Rehearsal and Performance II 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: TAP 360 with a grade of “C” or better
Enrollment Limitation: Audition
Course Transferable to CSU; UC
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. (C-ID THTR 191)

TAP 352
Musical Technical Production III 1 - 3 Units
Hours: 54 - 162 hours LAB
Prerequisite: TAP 351 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to CSU; UC
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
Hours: 54 - 162 hours LAB
Prerequisite: TAP 352 with a grade of “C” or better
Enrollment Limitation: Interview
Course Transferable to CSU; UC
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)
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<td>Children's Theatre Rehearsal and Performance III</td>
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<td>54 - 162</td>
<td>TAP 361 with a grade of “C” or better</td>
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<td>TAP 363</td>
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<td>1 - 3</td>
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<td>TAP 371</td>
<td>Children's Theatre Technical Production II</td>
<td>1 - 3</td>
<td>54 - 162</td>
<td>TAP 370 with a grade of “C” or better</td>
<td>Interview</td>
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<td>TAP 372</td>
<td>Children's Theatre Technical Production III</td>
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<td>TAP 371 with a grade of “C” or better</td>
<td>Interview</td>
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<td>Children's Theatre Technical Production IV</td>
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<td>TAP 372 with a grade of “C” or better</td>
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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 and 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 veterinary emergency care, anesthe- sia, dental care, surgical assistance and laboratory procedures.

Registered Veterinary Technicians (RVTs) are trained professionals who work as highly skilled assistants to veterinarians and researchers. RVTs are integral members of the veterinary health care team and are valuable employees in a variety of related fields.

Most states (including California) require official licensing or certification of RVTs. In California, certification is accomplished by:
- completion of an educational curriculum
- achievement of a passing score on the Veterinary Technician National Exam (VTNE) and
- achievement of a passing score on the California Veterinary Technician Exam (CVTE)

Career Opportunities
Private Veterinary Practice Veterinary Technology
Pharmaceutical Industry Zoos/Wild Animal Parks
Diagnostic Laboratories Veterinary Supplies Sales
Education Military Service
Humane Societies/Animal Control Biomedical Research
Livestock Health Management Regulatory Veterinary Medicine

Highlights
- The first program in California to have earned accreditation by the American Veterinary Medical Association
- Acceptance of degree by examining boards in states other than California
- High-quality training recognized by local employers
- Excellent record of students passing state board exams
- On-the-job training and future job placement opportunities

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

ASSOCIATE DEGREE
A.S. in 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 with a grade of “C” or better.
- Completion of CHEM 400 or 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.
- *Students are advised to check prerequisites for courses when registering.

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 http://crc.losrios.edu/~vettech/app.htm. 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: http://crc.losrios.edu/Areas_of_Study/Careers_and_Technology/Veterinary_Technology.htm

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 1st. No exceptions. Applications received after the deadline will be considered for the subsequent spring semester. Application packets will be considered for the program.

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.

**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. At least one unit of VT 298 must be completed prior to beginning the third semester courses.**
### DEGREE REQUIREMENTS

| First Year (Fall): | VT 100 Introduction to Veterinary Technology | 3
| VT 111 Anatomy-Physiology of Animals | 4
| First Year (Spring): | VT 152 Introduction to Laboratory Animals and Caged Birds | 3
| VT 110 Veterinary Office Practice | 3
| VT 113 Clinical Laboratory Techniques for Veterinary Technicians | 4
| Second Year (Fall): | VT 120 Pharmacology and Anesthesiology for the Veterinary Technician | 4
| VT 122 Animal Disease: Pathology | 3
| VT 126 Dentistry for the Veterinary Technician | 1.5
| Second Year (Spring): | VT 123 Large Animal Disease: Pathology | 3
| VT 130 Advanced Veterinary Technology | 4
| VT 131 Introduction to Diagnostic Imaging | 3
| VT 134 Large Animal Nursing | 1.5
| VT 298 Work Experience in Veterinary Technology | 1.5

**Total Units:** 37 - 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 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 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.

### CERTIFICATE OF ACHIEVEMENT

**Veterinary Technology Certificate**

**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 of documented clinical experience, the student will be fully eligible to take the California Veterinary Technician Exam (VTNE) and the California Veterinary Technician Exam (CETTE) to pursue licensure as a Registered Veterinary Technician.

#### Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Completion of BIOL 440 with a grade of “C” or better.
- Completion of CHEM 400 or 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 (includes official copies of all college transcripts) received by April 1st for the following Fall Semester.
- AVMA requires that all applicants for enrollment must have a high school diploma or G.E.D.
- Students are advised to check prerequisites for courses when registering.

#### 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.

#### CERTIFICATE REQUIREMENTS

| First Year (Fall): | VT 100 Introduction to Veterinary Technology | 3
| VT 111 Anatomy-Physiology of Animals | 4
| First Year (Spring): | VT 110 Veterinary Office Practice | 3
| VT 113 Clinical Laboratory Techniques for Veterinary Technicians | 4
| Second Year (Fall): | VT 152 Introduction to Laboratory Animals and Caged Birds | 2
| VT 120 Pharmacology and Anesthesiology for the Veterinary Technician | 4
| VT 122 Animal Disease: Pathology | 3
| VT 126 Dentistry for the Veterinary Technician | 1.5
| Second Year (Spring): | VT 123 Large Animal Disease: Pathology | 3
| VT 130 Advanced Veterinary Technology | 4
| VT 131 Introduction to Diagnostic Imaging | 3
| VT 134 Large Animal Nursing | 1.5

**Total Units:** 36

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 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.
4. 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.
5. 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.
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 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.
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.
11. 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.
12. 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.

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**Associate Degree**

The Veterinary Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
Veterinary Technology continued

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.

VETERINARY TECHNOLOGY (VT)

VT 100
Introduction to Veterinary Technology 3 Units
Hours: 36 hours LEC; 54 hours LAB
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.
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 2–6 hours/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
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.
Advisory: Completion or concurrent enrollment in CISC 302.
Enrollment Limitation: Student must complete pre-enrollment process.
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 via the pre-enrollment process.

VT 111
Anatomy-Physiology of Animals 4 Units
Hours: 54 hours LEC; 72 hours LAB
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.
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 2–6 hours/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
Hours: 54 hours LEC; 72 hours LAB
Prerequisite: VT 100 and 111 with grades of “C” or better
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 2–6 hours per 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
Hours: 54 hours LEC; 72 hours LAB
Prerequisite: VT 111 and 113 with grades of “C” or better
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  
**Hours:** 54 hours LEC  
**Prerequisite:** VT 113 and 298 with grades of “C” or better. Students must have at least one unit of VT 298. Students should have experience in a clinical setting, including animal handling, client communication, sample collection, and basic diagnostic modalities including auscultation, radiology, sample preparation, etc. prior to taking VT 122.  
A course of study designed to acquaint the Veterinary Technician trainee with the many varied disease entities seen in the animal health field. While most of the diseases discussed will be those of common small, domestic animals, some problems of exotic and laboratory animal species will also be investigated. There will be exposure to such areas as study of etiology, pathogenesis, symptomatology and prevention of disease. Necropsy demonstrations may be provided as visual aids to the textbook study.

VT 123  
**Large Animal Disease: Pathology**  
3 Units  
**Hours:** 54 hours LEC  
**Prerequisite:** VT 113 with a grade of “C” or better  
**Corequisite:** BIOL 440 (may have been taken previously)  
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  
**Hours:** 18 hours LEC; 27 hours LAB  
**Prerequisite:** None.  
**Corequisite:** VT 120  
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  
**Hours:** 54 hours LEC; 72 hours LAB  
**Prerequisite:** VT 120 with a grade of “C” or better  
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  
**Hours:** 36 hours LEC; 54 hours LAB  
**Prerequisite:** VT 120 and 122 with grades of “C” or better  
This course is designed to meet the needs of the veterinary technician who will be working for veterinarians in private practice, animal research laboratories, and/or 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 radiographic 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. Students will also be required to spend 2-6 hrs/week during assigned times in the care of the colony animals. Time may include weekends and holidays as well as semester break.

VT 134  
**Large Animal Nursing**  
1.5 Units  
**Hours:** 18 hours LEC; 27 hours LAB  
**Prerequisite:** VT 113 with a grade of “C” or better  
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. In this course students will receive instruction through in-person lectures and/or online modules and discussions followed by hands-on practice and demonstrations at off campus livestock facilities. Written Midterm and Final examinations will take place on campus. 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  
**Hours:** 27 hours LEC; 27 hours LAB  
**Prerequisite:** VT 100 and 111 with grades of “C” or better  
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship,
volunteer position or job related to career goals Veterinary Technology.
General Education: AA/AS Area III(b)
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: 27 hours LEC
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.
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C2; IGETC Area 6
This course will provide an introduction to the Vietnamese language at the Novice Low Level, which is characterized by an emerging ability to understand and produce appropriate responses in high-frequency situations utilizing learned materials, standardized messages, phrases and expressions including terms for addressing, numbers, time, dates, days, weather, and kinship terms. 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. Students will also acquire knowledge of the geography, culture and people of regions where Vietnamese is spoken as well as 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
Course Transferable to CSU; UC
General Education: AA/AS Area I; CSU Area C2; IGETC Area 6
This is the second course in the Elementary Vietnamese sequence. It is designed for students who have completed VIET 401 or two years of high school Vietnamese. It provides refinement of skills learned 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
Hours: 72 hours LEC
Prerequisite: VIET 402 with a grade of “C” or better

Course Transferable to CSU; UC

General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6

This is first semester Intermediate Vietnamese. It is designed for students who have completed Vietnamese 402 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
Hours: 72 hours LEC
Prerequisite: VIET 411 with a grade of “C” or better

Course Transferable to CSU; UC

General Education: AA/AS Area I; CSU Area C2; IGETC Area 3B; IGETC Area 6

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
Hours: 54 - 162 hours LAB
Prerequisite: None.

Course Transferable to CSU

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
Welding Code Specialist
Welding Fabricator Specialist

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 and 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 (High-School)
Welding Instructor (Trade or College)
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

ASSOCIATE DEGREES
A.S. in Welding Technology
CODE #1978

DEGREE REQUIREMENTS .......................... UNITS
WELD 100  Introduction to Welding ......................... 3
A minimum of 8 units from the following:
WELD 110  Advanced Shielded Metal Arc Welding (4)
WELD 111  Basic Pipe Welding Procedures (4)
WELD 113  Basic Flux Core Welding Procedures (4)
A minimum of 9 units from the following:
WELD 126  Gas Metal Arc Welding of Plate & Pipe (3)
WELD 127  Gas Metal Arc Welding Process of Sheet Metal (3)
WELD 128  Gas Tungsten Arc Welding of Aluminum Alloys (3)
WELD 129  Gas Tungsten Arc Welding of Stainless Steel (3)
A minimum of 5 units from the following:
WELD 298  Work Experience in Welding (1 - 4)
WELD 145  Basic Welding Shop Fabrication Skills (3)
WELD 151  Welding Industry Training (4)
Total Units: .......................................................... 25

Associate Degree
The Welding Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

CERTIFICATE OF ACHIEVEMENT
Welding Code Certificate
CODE #1974

The Welding Code Certificate specializes in the American Welding Society Structural Steel Welding Code (D1.1) and Seismic Welding Code (D1.8). Students have the option to select one of the three courses; Flux Core Arc Welding, Shielded Metal Arc Welding and Pipe Welding procedures as a focus course to prepare to take the Certified Welding Inspector (CWI) exam at an AWS testing site. Students may take all of the focus courses to assist with preparing for the CWI exam, but only one of the optional courses is needed to earn the certificate.

CERTIFICATE REQUIREMENTS .......................... UNITS
A minimum of 4 units from the following:
WELD 110  Advanced Shielded Metal Arc Welding (4)
WELD 111  Basic Pipe Welding Procedures (4)
WELD 113  Basic Flux Core Welding Procedures (4)
WELD 151  Welding Industry Training .............................. 4
Total Units: .......................................................... 8

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

Dean
Colette Harris-Mathews
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Area Office
EGC 102 and WINN 109E

Counseling
(916) 691-7316
Cooperative Work Experience
(916) 691-7372
WELDING (WELD)

WELD 100  Introduction to Welding 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.

This is an introductory course that covers the safety procedures of operating an electric arc welding machine, oxygen-acetylene cutting torch, oxygen-propane cutting and heating torch, plasma arc cutting, flux core arc welding, gas metal arc welding and the gas tungsten arc welding process. The course also includes the scientific theory of welding and cutting, modern power sources, welding symbols, proper joint design, the proper welding procedures and techniques for all types of welding and cutting processes.

WELD 110  Advanced Shielded Metal Arc Welding 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: WELD 160 with a grade of "C" or better

The WELD 110 advanced welding course specializes in vertical up and overhead welding procedures with the shielded metal arc welding (SMAW) process. Students will be introduced to current welding code regulations for structural steel, bridge and seismic applications with the SMAW process. Students will learn welding parameters, distortion, pre-heat and post-heat procedures, acceptable code procedures and practices. Laboratory assignments will prepare students to be successful in the WELD 151 Industry Training course.

WELD 111  Basic Pipe Welding Procedures 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: WELD 100 or 160 with a grade of "C" or better; The student needs safety training on gas cutting equipment and electric arc welding machinery to be eligible for the WELD 111 course.

Basic Pipe Welding Procedures covers personal safety, hand and power tool safety, machinery safety and operational procedures for preparing metal for welding. The student will be introduced to the proper procedures of beveling pipe with a cutting torch and grinder, welding in the 5G and 6G positions with the SMAW, FCAW, GMAW or the GTAW process. The course will also include Metallurgy, Materials, Fabrication, Welding Codes, Industry Standards, Welding Procedures and Welding Inspection procedures. Laboratory assignments will allow students to focus on pipe to pipe fit-up and welding bead quality to meet or exceed industry standards.

WELD 113  Basic Flux Core Welding Procedures 4 Units
Hours: 54 hours LEC; 54 hours LAB
Prerequisite: WELD 100 or 160 with a grade of "C" or better

The flux core arc welding process course provides training to develop semi-automatic welding skills on carbon steel plate to structural welding code standards. Topics include safety training, welding inspection and testing procedures with various size diameter flux cored electrodes, with and without external shielding gas, in all positions on fillet and groove welds. The laboratory assignments will prepare the student for the WELD 151 Industrial Training course.

WELD 125  Introduction to the Gas Metal Arc Welding Process 1.5 Units
Hours: 18 hours LEC; 27 hours LAB
Prerequisite: None.

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 safety and welding standards.

WELD 126  Gas Metal Arc Welding of Plate & Pipe 3 Units
Hours: 36 hours LEC; 54 hours LAB
Prerequisite: None.

Gas Metal Arc Welding process of Plate and Pipe focuses on safety, hand and power tools, machinery, welding parameters, welding code and power supplies. The laboratory assignments will allow students to focus on proper preparation methods and welding techniques to perform correct pipe to pipe connections to meet or exceed industry standards.
WELD 127
Gas Metal Arc Welding Process of Sheet Metal 3 Units
Hours: 36 hours LEC, 54 hours LAB
Prerequisite: None.
Gas Metal Arc Welding Process of sheet metal is a welding course that specializes in the safety, shop hand and power tools, machinery, power supplies, welding codes and welding techniques of the Gas Metal Arc Welding process. Laboratory assignments will be completed on medium carbon steel, aluminum alloy or stainless steel sheet-metal to meet industry standards. AWS, ASME and API Qualifications may be issued by the employer, not the college welding program.

WELD 128
Gas Tungsten Arc Welding of Aluminum Alloys 3 Units
Hours: 36 hours LEC, 54 hours LAB
Prerequisite: WELD 100 or 160 with a grade of “C” or better
Gas Tungsten Arc Welding of Aluminum Alloy focuses on welding safety, shop tools and machinery, welding codes, welding inspection, power supplies, welding technique and welding parameters. Laboratory assignments will be completed with the Gas Tungsten Arc Welding process with modern inverter power supplies on Aluminum Alloy material to prepare students for employment in the welding industry. AWS, ASME and API Qualifications may be issued by the employer, not the college welding program.

WELD 129
Gas Tungsten Arc Welding of Stainless Steel 3 Units
Hours: 36 hours LEC, 54 hours LAB
Prerequisite: WELD 100 or 160 with a grade of “C” or better
Gas Tungsten Arc Welding of stainless steel focuses on welding safety, shop tools and machinery, welding codes, welding inspection, power supplies, welding technique and welding parameters. Laboratory assignments will be completed with the Gas Tungsten Arc Welding process with modern inverter power supplies on stainless steel material. AWS, ASME and API Qualifications may be issued by the employer, not the college welding program.

WELD 145
Basic Welding Shop Fabrication Skills 3 Units
Hours: 36 hours LEC, 54 hours LAB
Prerequisite: None.
Basic Welding Shop Fabrication (WELD 145) The basic course provides the student the opportunity to design projects with pencil and paper sketches or computer assisted drawing prints with inch or metric measurement standards. The sketches or blueprints will include proper welding symbols, weld bead size and welding parameters common to industry standards. Each project is specifically selected by the student and professor based on skill level, available funds, student skills and applicable welding processes.

WELD 151
Welding Industry Training 4 Units
Hours: 54 hours LEC, 54 hours LAB
Prerequisite: WELD 110, 111, 113, 126, 127, 128, or 129 with a grade of “C” or better
The WELD 151 Welding Industry Training course is an advanced welding course that prepares students for immediate employment in the welding industry. Students will focus on specific welder qualification procedures to meet industry standards. Students will be able to practice on an industry standard welder qualification procedure in the Shielded Metal Arc Welding process (SMAW), Flux Core Arc Welding process (FCAW), Gas Metal Arc Welding process (GMAW) and Gas Tungsten Arc Welding process (GTAW) during the laboratory portion of the course. The purpose of the WELD 151 course is to prepare the student for a pre-employment qualification welding test that is specific to an industry standard at the desired location of employment. AWS, ASME and API qualifications will be issued by the employer, not the college welding program.

WELD 160
Welding Technology for the Automotive Industry 1.5 Units
Hours: 18 hours LEC, 27 hours LAB
Prerequisite: None.
This is an introductory level course that addresses safety and the proper procedures pertaining to the following equipment: Oxygen Acetylene and Oxygen Propane Cutting and Heating equipment, Electric Arc Welding, 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 294
Topics in Welding 0.5 - 5 Units
Hours: 5 - 54 hours LEC; 12 - 108 hours LAB
Prerequisite: None.
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
Hours: 54 - 162 hours LAB
Prerequisite: None.
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Welding. General Education: AA/AS Area III(b)
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: 36 hours LEC; 54 hours LAB
This is a regular offering course. See the current catalog section of “Special Studies” for full details of Independent Studies.
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](http://www.crc.losrios.edu/pslo)

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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
Allied Health 498
Animal Science 498
Anthropology 498
Architectural Design Technology 498
Architecture 498
Astronomy 498
Automotive Mechanics Technology 498
Biology 498
Broadcast Journalism 498
Building Inspection Technology 298
Business 498
Computer Information Science (CISC) 498
Construction 298
Construction Management Technology 498
Culinary Arts Management 498
Digital Media 498
Early Childhood Education 498
Emergency Medical Technology 298
Engineering 498
Film and Digital Production 498
Finance 498
Fire Technology 498

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* Continued on next page *
Work Experience continued

Health Information Technology 298
Health Records IT 298
Horticulture 498
Human Services 498
Journalism 498
Kinesiology 498
Management 498
Marketing 498
Medical Assisting 298
Music Specialization 498
Photography 498
Physics 498
Plant Science 498
Radio, Television & Film Production 498
Real Estate 498
Theatre Arts 498
Veterinary Technology 298
Welding 298

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](http://wexp.losrios.edu)
WORK EXPERIENCE (WEXP)

WEXP 198
Work Experience - General 1 - 3 Units
Hours: 60 - 225 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job.
General Education: AA/AS Area III(b)
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
Hours: 60 - 300 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals.
Course Transferable to CSU
General Education: AA/AS Area III(b)
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.

WEXP 498
Work Experience in (Subject) 1 - 4 Units
Hours: 60 - 300 hours LAB
Prerequisite: None.
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals.
Course Transferable to CSU
General Education: AA/AS Area III(b)
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.
COSUMNES RIVER COLLEGE EMPLOYEES
President .................................................................................................................................................. Dr. Edward Bush
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Ph.D., Claremont Graduate University

VICE PRESIDENTS

Administrative Services and Student Support ................................................................. Theresa Tena (Interim)
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Ph.D., UC, Santa Cruz

Student Services and Enrollment Management................................................................. Dr. Claire Oliveros
B.S., Western Oregon University; M.S., Portland State University
Ph. D., Oregon State University

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Ph.D. Northcentral University

Equity, Institutional Effectiveness and Innovation............................................................ Tadael Emiru
B.A., M.A., Saint Cloud State University

DEANS

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J.D., John F. Kennedy University

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DEANS – continued

Art, Media and Entertainment/Equity Officer ................................................................. Brian Bedford
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Library and Technology Services ............................................................ Stephen McGloughlin
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Science, Mathematics and Engineering ......................................................... Dr. Kathryn Sorensen
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Ph.D. UT Austin

Associate Dean of Instruction, Science and Engineering .............. Ryan Cox (Interim)
Degree, Name of University

English and Language Studies, Guided Pathways and Grants ....................... Dr. Alexander Casarenov
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Ph.D., UC Berkeley

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B.S., Colorado Technical University

Bookstore Manager ..................................................................................... Maria Hyde
B.S., CSU, Sacramento

Director of Donor Relations ................................................................. Michele Steiner
M.B.A., North Park University

Project Director, TRIO Upward Bound Programs .................................. Raul Pasamonte
M.S., CSU, Sacramento

Public Information Officer ......................................................................... Kristie West
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Director, First Year Experience ............................................................. Hong Pham
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ABEID, Trang (2016) ................................................................. English
  A.A., San Joaquin Delta CC; B.A., University of the Pacific; M.A., CSU Sacramento

ABRAHAM, Lisa Dominguez (1994) ................................................................. English
  B.A., UC, Berkeley; M.A., CSU, Sacramento

ADKINS POGUE, Andrea (2010) ............................................................... Public Services Librarian
  B.A., University of New Mexico; M.L.I., San Jose State University

ALDREDGE, Teresa W. (1992) ................................................................. Counselor
  A.A., Palomar College; B.A., UC, San Diego; M.A., San Diego State; Ed.D., UC, Davis

ALFARO, Jose L. (2018) ................................................................. English
  M.A., UC, Riverside

ALINO, Vera R. (2019) ................................................................. Chemistry
  Ph.D., National University of Singapore

ANDERSON, Eric W. (2019) ................................................................. Engineering
  Ph.D., University of California, Davis

ANDREWS, David C. (2001) ....................................................... Horticulture
  A.A., San Joaquin Delta College; B.S., CSU, Fresno

ATKINS, Andrea M. (2019) ................................................................. Veterinary Technology
  D.V.M., University of California, Davis

  A.S., Dixie College; B.S., Utah State University; M.S., CSU, Sacramento

AWAD, Veneece (2019) ................................................................. Pharmacy Technology
  M.S., DeVry University

BACA, Jorge (2009) ................................................................. Mathematics
  A.A., Santa Ana College; B.S., UC, Los Angeles; M.S., CSU, Long Beach

BAHM, Naomi I. (2018) ................................................................. Psychology
  Ph.D., University of California, Berkeley

BARKLEY, Michelle P. (2003) ................................................................. College Nurse
  A.A., San Joaquin Delta College; B.S. San Diego State University; M.S., CSU, Sacramento

BEEBE, Lisa (2019) ................................................................. Music
  Ph.D., University of California, Santa Cruz

BELOGLOVSKY, Miriam (2000) ................................................................. Early Childhood Education
  M.A., Phillips Grad. Institute; M.A., CSU, Northridge

BERNARDO, Carol J. (2006) ................................................................. Coop. Work Experience/Internship Coordinator
  B.A., CSU, Sacramento; M.A., University of San Francisco

BEYER, Gregory M. (2000) ................................................................. Distance Education Coordinator
  B.A., UC, Berkeley; M.A., San Jose State University; C. Phil., UC, Los Angeles

BLANKENSHIP, Thomas A. (2019) ................................................................. Mathematics
  M.S., California State University, Sacramento

BLOOMFIELD, Anthony G. (1998) ................................................................. Head Men’s Baseball Coach/Physical Education
  B.A., University of Nevada; M.Ed., Azusa Pacific University
<table>
<thead>
<tr>
<th>Name</th>
<th>Year</th>
<th>Position</th>
<th>Education</th>
</tr>
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<tbody>
<tr>
<td>BOND, Emily F.</td>
<td>(2009)</td>
<td>Public Services Librarian</td>
<td>B.A., CSU, Sacramento; MLIS, CSU, San Jose</td>
</tr>
<tr>
<td>BORTH, Kristen L.</td>
<td>(2019)</td>
<td>Health Information Technology</td>
<td>A.A., California Preparatory College; B.A., Loma Linda University; M.S. Loma Linda University</td>
</tr>
<tr>
<td>BUTLER, Patrick</td>
<td>(2016)</td>
<td>Real Estate/Business</td>
<td>B.S., UC, Davis; M.B.A., CSU Sacramento</td>
</tr>
<tr>
<td>CALAMAR, Jeann M.</td>
<td>(1989)</td>
<td>Physical Education</td>
<td>B.S., CSU, Hayward; M.S.S., United State Sports Academy</td>
</tr>
<tr>
<td>CARLISLE, Eli</td>
<td>(2015)</td>
<td>Biology</td>
<td>B.A., Princeton University; Ph.D., UC, Davis</td>
</tr>
<tr>
<td>CARMONA, Tammy R.</td>
<td>(1989)</td>
<td>Biology</td>
<td>B.S., CSU, Sacramento; M.S., University of Southern California</td>
</tr>
<tr>
<td>CARNEY, Michael J.</td>
<td>(2002)</td>
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<td>B.A., UC, Berkeley; M.S., Stanford University</td>
</tr>
<tr>
<td>CONNALLY, Ryan M.</td>
<td>(2002)</td>
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</tr>
<tr>
<td>DAVTIAN, Anna</td>
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</tr>
</tbody>
</table>
DEGN, Kathy F. (2004) ............................................................................................................................. EOPS Coordinator
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FEINDERT, Kerstin (2010) ...................................................................................................................... English
  M.A., Ruprecht-Karls Universitat Heidelberg
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FRAZEE, James C. (2009) ...........................................................................Psychology
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FRIGM, Michael P. (2017) ......................................................................... Culinary Arts
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  B.S., CSU, San Luis Obispo; M.Ed., University of Illinois

GEISSLER, Markus (1998) .......................................................... Computer Information Science
  A.A., DeAnza College; M.B.A., CSU, Sacramento; Ph.D., Capella University

GEORGE, Nyenbeku C. (2008) ............................................................... Sociology
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GIEDD, Shihni (2001) .................................................................................. English
  B.S., Christ’s College; M.S. Southwest Missouri State University

GILL, Blanca T. (2001) .................................................................................. Spanish
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GORMAN, Gabriel D. (2008) ............................................................... History
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GRANQUIST, Eric A. (2005) ......................................................................Real Estate/Business
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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
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HANSEN, Priscilla S. (2003) ................................................................. English
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HEARD MOLLEL, Danielle (2019) ................................................................. English
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HOANG, Linda (2017) ................................................................. Mathematics
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HODGKINSON, Georgine R. (1997) ................................................................. Communication Studies
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HUYCK-AUFDERMAUR, Melanie (2019) ................................................................. Library
A.A., Sac City Community College; B.A., UC Berkeley; MLIS, San Jose State University

JACKSON, Hiram S. (2000) ................................................................. GIS/Geography/Earth Science
B.S., Texas Christian University; Cert. of Studies, University of Chile; M.S., UC, Davis

JAMES, Jonathan (2016) ................................................................. Head Men's Basketball/Physical Education
A.A., Cosumnes River College, B.S., University of Phoenix; M.S., California University of PA

JONES-THOMAS, Brandy (2018) ................................................................. Human Services
M.A., National University

KAGAN, Alexander (2008) ................................................................. Counselor
M.A., National University

KANG, Mun K. (2018) ................................................................. Radio, Television, and Film Production
M.F.A., Chapman University

KIESNER, Maxwell N. (2019) ................................................................. Music
M.M., California State University, Sacramento
KIMBLER, Jeffrey G. (2009) ................................................................. Art
A.A., Allan Hancock College; B.A., M.F.A., Arizona State University

LaDUE, Cheri L. (1989) ............................................................... Physical Education
B.S., M.S., Baylor University

LAM, Nam H. (2017) ................................................................. Mathematics
M.S., University of Texas at Dallas

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

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

MARKALANDA, Piyali D. (2019) ........................................................... Mathematics
M.S., California State University, Long Beach

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

MARTINEZ-ALIRE, Crystal (2017) .................................................. Counseling
B.A., M.A., Ed.D., CSU Sacramento

MATHIS, Jacqueline S. (2007) ............................................................... EOPS Counselor
A.A., B.A., San Jose City College; M.S.W., San Jose State

MAYO, Kathryn J. (2007) ........................................................... Photography
B.F.A., University of Alabama; M.F.A., Tulane University

McDOWELL, Stephen (2016) ............................................................... Chemistry
B.S., UC San Diego; Ph.D. UN Reno

McHUGH, Matthew E. (2005) ............................................................ Emergency Medical Technology
A.A., Atlantic Community College; B.S., Widener University, Pennsylvania;
MICT Certificate, Kapiolani Community College, Hawaii
MEDEROS, Lisa Marie (2016) ........................................................................................................................... Marketing/Management
B.S., CSU Bakersfield; M.B.A., CSU Sacramento

MILLER, Nathan (2015) ............................................................................................................................... Communication Studies
B.A., Washburn University; M.A., University of Montana

MOJICA, Edward (2015) ....................................................................................................................................... Architecture Design Technology
BArch., Cal Poly, San Luis Obispo; M.S. Drexel Univeristy, 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

MULHERN, Jeanette (2015) ........................................................................................................................................ Early Childhood Education
B.A., M.A. CSU, Sacramento

MURANAKA, Brandon (2016) ..................................................................................................................................... Mathematics
B.S., UC Davis; M.A., University of Hawaii; M.A.T., UC, Davis; Ph.D., Oregon State University

A.S., Santa Rosa Jr. College; B.A., M.A., CSU, Sacramento

NAHLEN, Kari (2016) ........................................................................................................................................... Head Women's Volleyball Coach/Physical Education
B.S., W. Virginia University; M.S., Azusa Pacific University

NEFF, Eric S. (2009) .................................................................................................................................................... Biology
B.S., UC, Santa Barbara; Ph.D., UC, Davis

NEVES, Megan G. (2017) ........................................................................................................................................ Counselor
M.s., CSU, Sacramento

NEWMAN, Jason C. (2002) ......................................................................................................................................... History
B.A., M.A., Ph.D., UC, Davis

NGUYEN, Nhat (2015) ........................................................................................................................................... Mathematics
B.S., UC Davis; M.A., CSU, Sacramento

NGUYEN-VO, Loi (2008) ........................................................................................................................................ Mathematics
B.A., UC, Davis; M.A., CSU, Sacramento

NINH, Thien-Huong (2016) .................................................................................................................................... Sociology
B.A., UC Los Angeles; Ph.D., University of Southern CA

NOEL, Brian (2011) ................................................................................................................................................ Automotive Mechanics Technology
A.A., Cosumnes River College

O'BRIEN, Teresa (2015) .......................................................................................................................................... DSPS Counseling
B.A., Mills College; M.S., CSU Sacramento

OLIVER, Julie A. (2001) ........................................................................................................................................... Biology
B.A., UC, Davis; M.S., CSU, Sacramento
OSMAN, Mohammed (2002) ...................................................... Computer Information Science
B.E., Osmania University; M.S., Virginia Tech; M.B.A., UC, Davis

PANAGAKOS, H. Anastasia (2007) ............................................................. Anthropology
B.A., UC, Davis; M.A., Ph.D., UC, Santa Barbara

PANDEY, Rajeev R. (2019) ................................................................. Chemistry
Ph.D., University of North Dakota

PARILO, Margaret S. (2008) ................................................................. Accounting
B.S., CSU, Sacramento; M.S., Golden Gate University

PARKS, Lance M. (2001) ................................................................. Computer Information Science
B.S., CSU, Bakersfield; M.S., Golden Gate University

PATTERSON, Jason A. (2017) ................................................................. Biology
D.C., Southern California University of Health Sciences

PASKEY, Amanda M. (2006) ................................................................. Anthropology
B.A., M.A., UC, Davis

PEREIRA, Michael J. (1999) ................................................................. Automotive Mechanics Technology
A.A., Cosumnes River College; B.S., California Polytechnic University, San Luis Obispo

PEREZ, Rochelle A. (2009) ................................................................. Librarian
B.S., University of the East; M.L.S., Emporia State University

PESHKOFF, Alexander (2015) ................................................................. History
B.A., UC Davis; M.A., SF State University, San Francisco

PHAN, Man (2012) ................................................................. Business
M.B.A., UC, San Diego

PLASCENCIA, Cesar (2005) ................................................................. Head Women’s Soccer Coach /Physical Education
B.A., CSU, Sacramento; M.S., United States Sports Academy, Alabama

POLLOCK, Sarah (2015) ................................................................. Biology
B.S., CA Polytechnic State University; M.S., UC Davis

PREBLE, Ronald E. (2000) ................................................................. Head Men’s Soccer Coach/Physical Education
B.S., CSU, Sacramento; M.S., United States Sports Academy

PROCSAL, Amanda (2016) ................................................................. Psychology
B.A., CSU, Sacramento; M.A., Northern Arizona University

REED, Diana (2014) ................................................................. History
B.A., UC Berkeley; M.A., CSU, Sacramento

REESE, Shawn (2014) ................................................................. Chemistry
Ph.D., Brigham Young University

REEVES, Erica (2014) ................................................................. English
B.A., UC Berkeley; M.A., CSU, Sacramento

ROBERTS, Jason M. (2006) ................................................................. Welding
A.A., B.S., M.S., Cal Poly State University

RODRIGUES, Matthew J. (2019) ................................................................. Mathematics
M.A., University of California, Davis
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

RUSSELL, Michael (2015) ............................................................................................................................................. Chemistry
B.S., Indiana University; M.C., University of Madison; D.V.M. University of Madison

SAGE, Coral L. (2004) .................................................................................................................................................. Head Women’s Basketball Coach/Physical Education
A.A., Sierra College; B.S., UC, Riverside; M.S., Azusa Pacific University

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

SEAMONS, John (2015) ............................................................................................................................................... English
B.A., M.A., CSU Sacramento

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

SORIANO, Paolo (2017) ................................................................................................................................................ Counseling
A.A. Solano CC; B.A., UC Davis; M.S. CSU Sacramento

B.A., M.A., CSU Sacramento

B.S., Texas A&M University; M.S., University of Phoenix

TORRES, Christopher (2017) ...................................................................................................................................... Counseling
A.A. Sacramento City College; B.S., Masters of Counseling, CSU Sacramento

TORRES, Gabriel S. (2002) ........................................................................................................................................... Spanish
B.A., M.A., UC, Davis

TRENCH, Jena M. (2008) ........................................................................................................................................... Biology
B.S., UC, Santa Barbara; M.A., San Francisco State

TRENT, Anna Kazdaglis (2008) ................................................................................................................................... Art History
B.A., M.A., Federal Institute of Technology, Zurich; M.A., UC, Davis

TURNER, Thomasina M. (2002) ................................................................................................................................... Spanish
B.A., UC, Berkeley; M.A., CSU, Sacramento
VELASQUEZ, Jacob L. (2019) .................................................................................................Philosophy
Ph.D., University of California, Davis

VELLONE, Shannon L. (2009) ..............................................................................................Anthropology
A.S., Sierra College; B.A., M.A., CSU, Sacramento

WADENIUS, Adam P. (2019) .................................................................................................Film and Media Studies
M.A., San Francisco State University

WAGNER, Lauren (2014) .......................................................................................................Radio, Television & Film Production
B.A. San Francisco State University; M.F.A., University of Southern California

WASHINGTON, Christina (2016) ..........................................................................................English
B.A., 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

WHEELER ABEYTA, Sandra P. (2017) ..................................................................................Communication Studies
M.A., CSU, Sacramento

WILLIAMS, Omari (2016) ......................................................................................................Music
Bachelor of Music Ed., Michigan State Master of Music, University of Houston

WILLIAMS-BRITO, Kimberly (2007) .....................................................................................Mathematics
B.A., M.A., San Francisco State University

B.A., TESL, UC, Irvine; M.A., CSU, Fullerton

WINGARD, Benjamin (2016) ...............................................................................................Librarian
B.A., M.A., CSU Sacramento

WOHL, Matthew (2019) .......................................................................................................Counselor
M.A., California State University, Stanislaus

YARBROUGH, Michael D. (2001) ..........................................................................................Mathematics
B.S., Cal Poly; M.S., University of Arizona

ZAIGRALIN, Ivan (2016) ......................................................................................................Mathematics
B.S., M.S., San Jose State University; Ph.D., Boston University

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

ZOLLER, Karl A. (2018) ..........................................................................................................Humanities
Ph.D., University of California, Davis
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<td>ANDREWS, RICHARD</td>
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<td>Educational Center Supervisor</td>
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<td>Child Development Center Teacher</td>
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<td>Admissions &amp; Records Evaluator/Degree Auditor,</td>
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<td>Theater Technician</td>
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<td>GOMEZ- BASALDUA, ESMERALDA</td>
<td>Admissions / Records Clerk III</td>
<td>Elk Grove Center</td>
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<td>Laboratory Technician</td>
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<td>Bookstore Supervisor</td>
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<td>Child Development Center Teacher</td>
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<td>HALL, JOSHUA</td>
<td>IT Analyst I</td>
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<td>Laboratory Technician</td>
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<td>IT Analyst II</td>
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<td>Accountant</td>
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<td>Printing Services Operator II</td>
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</table>
KEARNEY, MICHAEL  
Admissions & Records Evaluator

KEOONLA, VIRASANE  
Laboratory Technician

KOHN, RONALD  
Laboratory Technician

KOLESNIK, NATALIYA  
Instructional Assistant

KOROLEV, VLADISLAV  
Custodian

KOSCHESKI, DONALD  
Laboratory Technician

LARSEN, AMBER  
Maintenance/Operations Clerk

LARSEN, LIVIA  
Laboratory Technician

LARSEN, RACHEL  
Confidential Admin Assistant III

LAXA, CESAR  
Custodian

LE, PHUONG  
Financial Aid Officer

LEAL, CLAUDIA  
Administrative Asst. I

LEE, KA  
Student Personnel Assistant

LEE, TCHONG  
Head Custodian

LEMUS, MIGUEL  
A&R Evaluator

LEWIS, LEROY  
Counseling Clerk I

LOPEZ-ALVAREZ, IRMA  
Instructional Assistant  
Elk Grove Center

LOVETT, JAMES  
A/V Prod & Maint Technician II

LOW, IAN  
Account Clerk III

LOYOLA, BRIANNA  
Clerk II

LUCHENKO, VADIM  
Senior IT Technician

LUSANAXAY, AKSONE  
Financial Aid Clerk II

MARTINEZ, FABIOLA  
Custodian

MARTINEZ, SELENA  
Counseling Clerk II

MEINZ, PAUL  
Research Analyst

MEJIA, ALMA  
Administrative Asst. I

MENDOZA-PLASCENCIA, OSCAR  
Student Life Supervisor

MEROUX, NORBERT  
Instructional Assistant

MINAMIDE, JERRY  
Instructional Assistant

MIYAGI, CHRISTY  
Clerk III

MOUA-VANG, VICKI  
Instructional Service Assistant II

MURILLO, SHIRLEY  
Instructional Assistant

NAIDU, ZARIA  
Library Technician

NAIEM, LAILI  
Financial Aid Clerk II

NEYAR, JASON  
Kinesiology/Athletic Attendant

NEGRULYA, OLEXANDR  
Instructional Assistant

NEUHARTH, RAYMOND  
Instructional Assistant

NGUYEN, SONORA  
Instructional Assistant

NGUYEN, TINA  
Confidential Admin Asst I

NISHIZAKI-NGO, JENNIFER  
Student Support Services Specialist

NICOLOSI, LAURI  
Educational Media Design Specialist

OCRANT, CHRISTINA  
Educational Media & Web Design Spec.

OESTERMAN, EMMIE  
College IT Systems Supervisor

OLSON, JULIE  
Student Support Services Specialist

PATRICK, JENNIFER  
Child Development Center Supervisor

PATTEN, CYNTHIA  
Instructional Assistant

PEÑA, ELIZABETH  
Athletic Trainer

PEREZ, MARIADJESUS  
Financial Aid Officer

PEREZ, RENEE  
Administrative Asst. I

PERRAULT, BARBARA  
Admin. Services Analyst

PHU, MICHELL  
Financial Clerk II

POWNALL, LAURIE  
Library/Media T.A.

PRESSLEY, LINDA  
Child Development Center Lead Teacher

QUINTANA, ALINA  
Student Personnel Assistant

RAMIREZ, JOANN  
Outreach Specialist

REBER, RACQUEL  
Student Personnel Assistant

REYNA, FRANK  
Custodian

RIVERA, GABRIEL  
Instructional Assistant

RIVERA, GUADALUPE  
Custodian

ROBINSON, APRIL  
Admin Asst. II
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**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 Bigh Horn Blvd and continue to center entrance.