AMERICAN RIVER COLLEGE

2026-2027

LOS RIOS COMMUNITY COLLEGE DISTRICT

CATALOG



American River College

2026-2027 Official Catalog

Publication Date: August 1, 2026

Disclaimer

Every effort has been made to ensure that what is stated in this catalog is accurate. The courses and programs we offer, together with other information contained in this online catalog, are subject to change without notice by the administration of the Los Rios Community College District and American River College for reasons related to student enrollment, level of financial support, or for any other reason, at the discretion of the district and American River College. The district and American River College further reserve the right to add, amend, or repeal any of their rules, regulations, policies, and procedures.

Additional information can be found on the Los Rios Community College District website (https://losrios.edu) and American River College website (https://ARC.losrios.edu).

American River College
(916) 484-8011
4700 College Oak Drive
Sacramento, CA 95841

Mather Center
(916) 484-8011
10150 Missile Way
Mather, CA 95655

McClellan Center
(916) 570-5000
5146 Arnold Avenue
McClellan, CA 95652

Natomas Center
(916) 485-6000
2421 Del Paso Road
Sacramento, CA 95835

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Introduction

How to Use This Catalog

This catalog is an important resource for planning your education at American River College. We encourage you to become familiar with its academic requirements, policies, programs, and student resources.

Every effort has been made to ensure the information is accurate as of the publication date. However, courses, programs, requirements, policies, and procedures may change without notice due to enrollment, funding, government requirements, or other circumstances. The Los Rios Community College District and American River College reserve the right to add, amend, or repeal this information as needed.

Current Information and Catalog Updates

The catalog website (https://arc.losrios.edu/catalog) contains the most current catalog information. Significant changes – such as new courses, programs, or regulations – may also be published as catalog updates, typically in September or November, or whenever a critical update is necessary.

Career Education Updates

Requirements for career education programs may change in response to state, regional, or federal regulations. Students in these programs should meet regularly with a counselor to confirm current requirements.

About American River College

American River College's beautiful 153-acre main campus is in the suburbs of Sacramento, California, and welcomes approximately 32,000 students each spring and fall, making ARC one of the largest higher education institutions in California. Our vision is to transform the future of students and our community through inclusive, equitable education. We offer a large selection of academic and career-oriented associate degrees, certificates, and programs designed to prepare students to enter the workforce or transfer to a university. Many of our students transfer to local four-year universities including California State University, Sacramento and the University of California, Davis. In fact, American River College transfers more students to Sac State and UC Davis than any other community college in California.

Mission, Vision, and Values

Our Mission

American River College places students first in providing an academically rich, inclusive environment that inspires critical thinking, learning and achievement, and responsible participation in the community.

American River College, serving the greater Sacramento region, offers education and support for students to strengthen basic skills, earn associate degrees and certificates, transfer to other colleges and universities, and achieve career as well as other academic and personal goals.

Our Vision

Transform the future of all students and our community through inclusive, equitable education.

Our Commitment to Social Justice and Equity

American River College strives to uphold the dignity and humanity of every student and employee. We are committed to equity and social justice through equity-minded education, transformative leadership, and community engagement. We believe this commitment is essential to achieving our mission and enhancing our community.

Accreditation

The Los Rios Community College District consists of four comprehensive, public California community colleges: American River College, Cosumnes River College, Folsom Lake College, and Sacramento City College. American River College is accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC) of the Western Association of Schools and Colleges, an institutional accrediting body recognized by the Council of Higher Education Accreditation and the US Department of Education. The American River College educational centers are fully accredited under the college's accreditation status.

Additionally Accredited Programs

The following American River College programs are accredited by other external agencies.

- The Automotive Technology Program is accredited by the National Automotive Technical Education Foundation (NATEF) (https://www.aseeducationfoundation.org/).
- The Chemical Dependency Program, which offers certification in alcohol and drug counseling, is certified by the California Association of DUI Treatment Programs (https://cadtp.org/) (CADTP) and the California Consortium of Addiction Programs and Professionals (https://www.ccapp.us).
- The Child Development Center is accredited by the National Association for the Education for Young Children (https://www.naeyc.org/our-work/families/value-naeyc-accredited-program).
- The Dietary Manager/Dietary Service Supervisor Certificate Program is accredited by the California Department of Public Health (https://www.cdph.ca.gov) (CDPH) and the Association of Nutrition and Foodservice Professionals (https://www.anfponline.org) (ANFP).
- The Fire Technology Program is accredited by the California State Fire Marshal's Office (https://osfm.fire.ca.gov/).

- The Funeral Service Education Program is accredited by the American Board of Funeral Service Education (ABFSE) (https://www.abfse.org/).
  - Address: 992 Mantua Pike, Suite 108, Woodbury Heights, NJ 08097
  - Phone: (816) 233-3747
  - Email: exdir@abfse.org
- The Legal Studies Program is accredited by the American Bar Association (https://www.americanbar.org/topics/paralegal/).
- The AS Nursing Program is accredited by the California State Board of Registered Nursing (https://www.rn.ca.gov/).
- The Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs (https://www.caahep.org/) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).
  - Address: 361 Park Street, Clearwater, FL 33756
  - Phone: (727) 210-2350
- The Public Safety Training Programs are accredited by:
  - California Commission on Peace Officer Standards and Training (https://post.ca.gov/Commission-Regulations) (POST)
  - California Board of State and Community Corrections (https://www.bscc.ca.gov/m_bsccboard/) (BSCC)
- The Respiratory Care Program is accredited by the Commission on Accreditation for Respiratory Care (https://www.coarc.com/) (CoARC).
  - Address: 1248 Harwood Road, Bedford, TX 76021
  - Phone: (817) 283-2835

Board of Trustees and Chancellor

The Board of Trustees is the governing body of Los Rios Community College District and is responsible for the educational, physical, and financial well-being of the district. The board also sets legal policy for the district.

The board is composed of seven board members who are elected to four-year terms by registered voters. The board also includes a non-voting student trustee who is elected by students.

Board members:

- Dr. Colette Harris-Mathews
- Mr. Dustin Johnson
- Mr. Robert Jones
- Mr. John Knight
- Ms. Tami Nelson
- Ms. Deborah Ortiz
- Ms. Kelly Wilkerson
- Student Trustee

Chancellor: Dr. Torence Powell

Getting Started

Academic Calendar

Fall 2026

Fall 2026 starts August 22, 2026, and ends December 17, 2026.

Date	Action/Event
August 22	Instruction begins
September 7	Holiday – Labor Day (no classes; offices closed)
October 2	Last day to petition for graduation/certification
November 11	Holiday – Veterans Day (no classes; offices closed)
November 26 to 29	Holiday – Thanksgiving Recess
December 17	End of semester
January 4, 2027	Grades due

Spring 2027

Spring 2027 starts January 16, 2027, and ends May 20, 2027.

Date	Action/Event
January 16	Instruction begins
January 18	Holiday – Martin Luther King, Jr.'s Birthday (no classes; offices closed)
February 12	Holiday – Lincoln's Birthday (no classes; offices closed)
February 15	Holiday – Washington's Birthday (no classes; offices closed)
March 5	Last day to petition for graduation/certification
March 15 to 21	Holiday – Spring Recess (no classes; offices remain open)
March 31	Farmworkers Day
May 20	End of semester
May 27	Grades due

Summer 2027

Summer 2027 starts June 7, 2027, and ends August 5, 2027.

Date	Action/Event
June 7	Instruction begins
June 18	Holiday – Juneteenth (no classes; offices closed)
July 5	Holiday – Independence Day (no classes; offices closed)
July 2	Last day to petition for graduation/certification
August 5	End of semester
August 10	Grades due

How to Enroll

Apply Now

Guarantee your admission to American River College by completing the online application to American River College (https://www.opencccapply.net/cccapply-welcome?cccMisCode=231).

Note: You must submit a new application any time you have a break of enrollment where you do not attend for a year or more.

When applying to one college in the Los Rios Community College District, you are able to enroll in all four colleges (American River College, Cosumnes River College, Folsom Lake College, and Sacramento City College).

Save Money

To qualify for the Los Rios Promise and other programs, fill out the Free Application for Federal Student Aid (FAFSA) or the California Dream Act Application (CADAA). Learn how to save money with financial aid (https://arc.losrios.edu/save-money).

Other Admissions Tips

- Most students are placed automatically into English and mathematics courses that match their skill level at the time of application. If you have not graduated from high school, did not attend a US high school or adult school, or have not received a placement after you applied, learn about our placement process (https://arc.losrios.edu/placement-process) or about Placement (https://arc.losrios.edu/placement) generally. English as a Second Language (ESL) assessment testing is still available via assessment testing (https://arc.losrios.edu/admissions/placement/assessment-testing).
- Participate in orientation for new students (https://arc.losrios.edu/admissions/orientation).

Challenges to Matriculation Process

Students can elect to not participate or be exempt from most or parts of the matriculation process based on the following criteria:

1. The student has completed an associate degree or higher.
2. The student satisfies at least two of the following:
    - The student has identified a goal of upgrading job skills
    - The student has enrolled for fewer than 12 units
    - The student is concurrently enrolled in another post-secondary institution
    - The student has declared no degree or occupational objective

Participation in matriculation activities does not provide enhancement in priority registration and students who elect not to participate in these activities will not receive a less favorable priority registration date as a result. Matriculation activities are intended to promote student success and Los Rios encourages students to participate.

Submit Transcripts and Test Scores

Official Transcripts and Test Scores

American River College does not require official transcripts from institutions outside of the Los Rios Community College District as a condition of admission to the college or to award a degree or certificate that has been earned without inclusion of credit from external institutions.

Official transcripts are required to apply credit earned outside of the Los Rios Community College District (transfer credit) towards a degree or certificate at American River College.

Official transcripts may be required in other circumstances, such as to receive veteran's educational benefits, to participate in intercollegiate athletics, or to receive certain financial aid awards for those who have applied.

Students who have completed examinations for college credit such as Advanced Placement (AP), International Baccalaureate (IB), or College-Level Examination Program (CLEP) must submit official scores to American River College to apply applicable credit to their program of study. For more information about how these scores may be applied, see Credit for Prior Learning and Alternative Study Options (https://arc.losrios.edu/2025-2026-catalog-development/while-you-are-here/credit-for-prior-learning-and-alternative-study-options).

All records submitted become the property of the college and will not be returned to the applicant.

Official transcripts can be mailed directly from the college or university. If students submit official transcripts, the official transcripts must remain in their original, unopened envelopes. Mail official transcripts and test scores to:

American River College
Attn: Admissions
4700 College Oak Drive
Sacramento, CA 95841

Official transcripts can be sent electronically to admissions@arc.losrios.edu, but the email must come directly from the college or university. Official transcripts submitted to American River College become the property of the college; official copies will not be returned to the student.

Transfer Credit Acceptance

We accept coursework from colleges and universities that are accredited by the following regional bodies:

- Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges (ACCJC)
- Higher Learning Commission (HLC)
- Northwest Commission on Colleges and Universities (NWCCU)
- Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)
- Middle States Commission on Higher Education (MSCHE)
- New England Commission of Higher Education (NECHE)
- WASC Senior College and University Commission (WSCUC)

We do not accept coursework that is remedial or post-baccalaureate in nature. Transfer credit may not be reflected on your records, but it is kept on file for use in completion of degrees or certificates.

Foreign Transcript Evaluation

Students who want to use coursework from a foreign college or university need to have their transcript(s) evaluated. We do not give credit for coursework that is from high school, remedial, or post-baccalaureate in nature.

We accept transcript evaluations from companies that are current members of National Association of Credential Evaluation Services (NACES) (https://www.naces.org/members) or Association of International Credential Evaluators (http://www.aice-eval.org/) (AICE). When you get your transcript evaluated, make sure you ask for:

- A course by course evaluation
- Whether unit values are in semester or quarter units
- What coursework is lower division, upper division, or graduate level

After it is received by American River College, the evaluation becomes property of American River College and is treated in the same manner as an official transcript. Official copies will not be returned to the student.

Placement and Assessment Services

English and Math Placement

Students who graduated from a US high school and included all of the requested high school information on their CCCApply application will be automatically placed in English and math courses upon admission to American River College.

English as a Second Language (ESL) Placement

If you are still learning English, you can complete the ESL Guided Self-Placement Process online, which will place you in ESL classes that match your skill level. Your placements will immediately appear on the screen when you complete the process. Allow 24 hours for those placements to post to your eServices account. See the ESL Placement (https://arc.losrios.edu/esl-placement) page for additional information.

How to Access Your Placements

To view your placements online:

1. Log in to eServices (https://ps.losrios.edu/student/signon.html).
2. Click on **Academic Records**.
3. Click on **Placements**.

Know Your Rights: AB 705 and AB 1805 (https://arc.losrios.edu/705-1805)

Placement for Dual Enrollment Students

As part of the Dual Enrollment (Special Admit) approval process, you may submit your current unofficial high school transcript with your Special Admit Form if you plan to enroll in a math class, English class, or a class which has an English or math prerequisite for placement at the time of admission.

If you did not receive a placement, or if you completed additional high school coursework in English or math after receiving a placement, you may submit a Placement Re-Evaluation Request Form (https://arc.losrios.edu/placement-reeval) to have new placements determined.

Updating or Receiving English and Math Placements

Provide High School Information

If you graduated from a US high school, but you did not report your high school information on your application, or your high school information was not correct on your application, you can submit a Placement Re-Evaluation Request Form (https://arc.losrios.edu/placement-reeval) to receive or update your English and math course placements.

Use Guided Self-Placement

If you have foreign high school transcripts or left high school without graduating, then you are eligible to utilize the Guided Self-Placement process to determine which English course(s) to take. Complete the questions on our Placement Process (https://arc.losrios.edu/placement-process) page to get started.

After completing Guided Self-Placement, your placements will be updated in our enrollment system (eServices (https://ps.losrios.edu/student/signon.html)) the following day.

Using College Coursework or Credit for Prior Learning to Satisfy Prerequisites

Aside from placements, you may also be able to satisfy English, Math, or ESL prerequisites using outside coursework or certain test results, such as Advanced Placement (AP), International Baccalaureate (IB), or College-Level Examination Program (CLEP). Please see Prerequisite Verification and Challenge (https://arc.losrios.edu/prerequisite) for more information.

AB 705 and AB 1805

AB 705

California law (Assembly Bill 705) essentially eliminated the use of assessment tests for purposes of determining the placement of students into transfer-level math and English courses in community colleges.

Research shows that California students are far more prepared than assessment tests have acknowledged. A student's high school performance is a much stronger predictor of success in transfer-level courses than standardized placement tests.

AB 705 requires colleges to take into account high school coursework, high school grades, and high school grade point average when determining math and English placement upon enrollment.

Pathways for Course Placement

With Assembly Bill 705, there are two pathways for course placement:

Recent Graduates

Students who graduated from a United States high school in the last ten years will receive English and math placements using high school records instead of standardized assessment tests.

For more information, see **Placement for High School Graduates** under English and Math Placement (https://arc.losrios.edu/admissions/placement-and-assessment-services/english-and-math-placement).

Less Recent Graduates

Students who graduated more than 10 years ago, students who have foreign transcripts, and students who left high school without graduating will use a guided self-placement tool to choose the course(s) most suitable for them.

For more information, see **Guided Self-Placement** under English and Math Placement (https://arc.losrios.edu/admissions/placement-and-assessment-services/english-and-math-placement).

AB 1805 – Placement and Enrollment Outcomes

American River College wants to make sure students are placed fairly, equitably, and accurately in English, math, statistics, and English as a Second Language (ESL) courses. As part of that effort, we are making placement and enrollment data in these courses available to you.

The data includes the number of new students placed in English, math, statistics, and ESL courses, either with or without support. The information provided also includes the number of students who enrolled in transfer-level courses, transfer-level courses with support, degree-applicable math coursework, and transfer-level ESL courses.

As part of our equity and anti-racism efforts, we have included data by race and ethnicity, so you can see how students from different racial and ethnic groups placed and where they enrolled.

See ARC English and Math Placement and Enrollment Data (https://arc.losrios.edu/2026-2027-official-catalog/getting-started/how-to-enroll/arc/main/doc/ARC02-Admissions/ARC-Placement/ARC_Placement_Enrollment_Data.pdf).

Admission Requirements and Procedures

Admissions Eligibility

Any person who has earned a high school diploma or the equivalent – such as a certificate of proficiency issued by the State Board of Education including a General Education Development (GED) – is eligible for admission to American River College. Non-high school graduates 18 years of age or older who demonstrate ability to profit from a community college education may also be admitted.

There are four main types of students who attend American River College:

First-Time College Students

First-time college students are individuals who are a high school graduates or are at least 18 years old and never attended any college (other than those who attended while in high school).

Continuing Students

Continuing students are individuals who attended classes at any Los Rios college in the term immediately prior to the next term.

Returning or Transfer Students

All students returning after an absence or transferring from a non-Los Rios college must complete an admissions application and submit official transcripts of all other college work to the Admissions and Records Office.

Special Admit Students (Dual Enrollment)

High school students who will have completed eighth grade or be at least 14 years of age by the start of classes and adult school students working on a high school diploma program may be eligible to enroll in a maximum of eleven units of community college classes each semester through Dual Enrollment program.

Admission with Transfer Credit

Students who want academic credit for courses taken outside of Los Rios Community College District at regionally accredited colleges and universities must submit official transcripts (https://arc.losrios.edu/2025-2026-catalog-development/getting-started/how-to-enroll/submit-transcripts-and-test-scores) for those courses to the Admissions and Records office.

Admission for Veterans and Dependents Using Veterans Educational Benefits

Veterans services are available to assist veterans, spouses, and children of disabled or deceased veterans who may be eligible for federal and/or state educational benefits.

Veterans and their dependents should contact American River College's Veterans Resource Center (https://arc.losrios.edu/vrc) each semester to initiate benefits. Veterans will need to provide a copy of their DD-214 and other supporting documentation. Eligibility may take several weeks to process. Eligibility is determined by the US Department of Veterans Affairs (VA).

Eligibility for Programs Eligibility for VA educational benefits can be extended to veterans, reservists, and children of service-connected deceased or disabled veterans under the following programs:

- Forever GI Bill® – Harry W. Colmery Veterans Educational Assistance Act
- The Montgomery GI Bill® (Chapter 30)
- US Department of Veterans Affairs Veteran Readiness and Employment (VR&E) (Chapter 31)
- Post-9/11 GI Bill® (Chapter 33)

- Dependents' GI Bill® (Chapter 35)
- Reservists Montgomery GI Bill® (Chapter 1606)

For more information please visit Veterans Affairs Educational Benefits (https://benefits.va.gov/gibill/).

VA requires that all credit for previous education and training is on file at American River College. Veterans and dependents are required to submit transcripts (https://arc.losrios.edu/submit-transcripts) from other institutions before they meet with their academic counselor at American River College. American River College will maintain a record of the previous education and training of veterans and eligible persons – and indicate where credit has been granted, if appropriate – and the student will be notified accordingly. An evaluation of prior credit will be recorded and granted appropriately on a VA Education Plan. All recipients of VA educational benefits are required to select a major and have a VA Educational Plan on record.

In most cases, all tuition and enrollment fees, miscellaneous fees, textbooks, and class supplies are paid for by the student and not by VA. The exception is students who are using the Post 9/11 GI Bill® or Vocational Rehabilitation benefits. Students using Post 9/11 – Chapter 33, Transfer of Entitlement, Fry Scholarship, or Vocational Rehabilitation – Chapter 31 benefits must notify the Veterans Resource Center immediately after they enroll each semester to avoid being dropped for non-payment.

Principles of Excellence

American River College is a member of the White House Executive Order 13607 Principles of Excellence for Educational Institutions Serving Service Members, Veterans, Spouses, and Other Family Members. The Departments of Defense, Veterans Affairs, and Education established Principles of Excellence to apply to educational institutions receiving funding from Federal military and veterans educational benefits programs, including benefits programs provided by the Post-9/11 GI Bill. The Principles ensure that these educational institutions provide meaningful information to service members, veterans, spouses, and other family members about the financial cost and quality of educational institutions to assist those prospective students in making choices about how to use their Federal educational benefits; prevent abusive and deceptive recruiting practices that target the recipients of Federal military and veterans educational benefits; and ensure that educational institutions provide high-quality academic and student support services to active-duty service members, reservists, members of the National Guard, veterans, and military families.

Veterans Choice Act

If you're receiving veterans educational benefits, you may be able to receive in-state tuition rates under Section 702 of the Veterans Choice Act.

Eligibility Requirements for Veterans

To be eligible, all the following must be true:

- When you start school, you live in the state where your school is located
- You've served on active duty for at least 90 days since September 10, 2001
- You're receiving benefits under the Post-9/11 GI Bill, the Montgomery GI Bill Active Duty (MGIB-AD), or Veteran Readiness and Employment (VR&E)

Note: Section 702 of the Veterans Choice Act covers you only after discharge, not while you're still on active duty or while you're a member of the Active Guard Reserve (AGR).

Eligibility Requirements for Spouses or Children

To be eligible, the following must be true:

- When you start school, you live in the state where your school is located
- *One* of the following must be true:
  - You're using education benefits transferred from a veteran
  - You're using benefits under the Fry Scholarship and the veteran had served a period of active-duty service of at least 90 days before their death
  - You're using benefits through the Survivors' and Dependents' Educational Assistance (DEA) program

Keeping Your In-State Residency Status

You'll keep your in-state residency status as long as you remain enrolled at a Los Rios college. You can take scheduled breaks between courses, semesters, or terms, but if you discontinue and return, you won't keep your in-state residency status under the Veterans Choice Act.

Registration Priority for Veterans

All veteran students are subject to the provisions under SBI 1456. Under the provisions of California Education Code 66025.8. American River College will grant priority registration to eligible members or former members of the Armed Forces of the United States. Proof of current military status (military ID or DD-214 Member) must be submitted to the School Certifying Official. For eligibility information, please contact the Veterans Resource Center (https://arc.losrios.edu/vrc).

GI Bill® is a registered trademark of the US Department of Veterans affairs (VA). More information about education benefits offered by VA is available at the official US Department of Veterans Affairs website (https://www.benefits.va.gov/gibill/).

International Student Admission

American River College welcomes students from all over the world. There are different attendance requirements for each visa type. International students are those who are attending college in the US on an F-1 visa.

American River College is approved by the US Citizenship and Immigration Services (USCIS) to issue I-20s, which students can use to apply for the F-1 visa. An international student must be enrolled in at least 12 units each semester and must maintain the same academic standards as all students, in order to comply with F-1 visa requirements.

For more information, see international student admissions (https://arc.losrios.edu/international-student).

Dual Enrollment Admission

Courses that provide enrichment and advancement in educational experience may be offered to high school and adult school students. The student must have completed eighth grade or be at least 14 years old by the first day of instruction.

High school students should request information from their high school counselor regarding eligibility and complete the Special Admit Form. The high school counselor should then submit a completed Special Admit Form that has been signed by a parent and by the high school counselor or principal, and an official transcript.

After the Special Admit Form has been approved, Admissions and Records staff will remove a registration hold to allow students to self-register in classes using eServices.

Dual Enrollment students participating in CCAP programs may be enrolled by college personnel based on requests from the student's high school. A Dual Enrollment student is not considered a continuing student when registering for classes for any subsequent semesters. It is the responsibility of the Dual Enrollment student to become familiar with, and aware of, all the requirements, processes, and deadlines pertaining to Dual Enrollment.

For more information, see Dual Enrollment admissions (https://arc.losrios.edu/admissions/get-started-and-apply/dual-enrollment-admission-and-enrollment-steps).

Undocumented Student Admission

At American River College, we define undocumented to include all immigrants who reside in the US without legal status. We encourage undocumented students to:

1. Complete the online application to American River College (https://www.opencccapply.net/cccapply-welcome?cccMisCode=231).
2. Submit a California Non-Resident Tuition Exemption Form to the Admissions & Records Office via eServices. See eligibility requirements at California Dream Act (https://arc.losrios.edu/ca-dream-act).
3. Complete the California Dream Act Application (https://dream.csac.ca.gov) (CADAA) by March 2 of every year.

For more information, see undocumented student admissions (https://arc.losrios.edu/undocumented-students).

Residency Requirements

Students who are California residents pay in-state tuition of $46 per unit, whereas students who are non-residents pay out-of-state tuition of $475 per unit. Community college enrollment fees are set by the California State Legislature. All fees are subject to change.

The term "California resident" for fee purposes may differ from other definitions of California residency. A person who has a California driver's license and/or vehicle registration or who is a California resident for tax, voting, or welfare purposes may have established legal residence in the state but not necessarily be considered a resident for fee purposes.

Residency Eligibility

To be eligible for California residency, a student must do the following:

- Be a citizen or hold a US immigration status that does not prevent establishment of residency
- Verify physical presence in California for at least one year and one day prior to the first day of the semester/term
- Verify intent to make California your permanent place of residence
- Establish financial independence from a non-resident parent or guardian

For more information, go to residency requirements on the American River College website (https://arc.losrios.edu/residency-requirements).

Readmission from Pause Status

Students on pause status from American River College must submit a Petition for Readmission After Pause Status form, which is completed with a college counselor. In order to enroll in classes, the dean must approve readmission following counselor recommendation.

Fee Payment Deadlines

Your tuition and fees are due soon after you enroll in classes. You *may* be dropped if your fees are not paid by the fee payment deadline. This is true even if you enroll in a class that starts later in the semester.

Fall 2026 Payment Deadlines

Payment deadlines for the fall 2026 semester.

Date Enrolled in Classes	Payment Due Date
July 24, 2026 or earlier	August 7, 2026 *Your payment is due on this date to avoid being dropped from your classes.*
July 25, 2026 or later	The next day after enrollment date*

* To make sure students who enroll during open enrollment have sufficient time to pay for classes, we will not drop students for non-payment if they enroll in classes on July 25, 2026 or later. However, students who have unpaid fees after the end of the term will receive a hold preventing future enrollment until payment is received.

Spring 2027 Payment Deadlines

Payment deadlines for the spring 2027 semester.

Date enrolled in classes	Payment Due Date
December 25, 2026, or earlier	January 8, 2027
December 26, 2026, or later	The next day after enrollment date*

* To make sure students who enroll during open enrollment have sufficient time to pay for classes, we will not drop students for non-payment if they enroll in classes on December 26, 2026, or later. However, students who have unpaid fees after the end of the term will receive a hold preventing future enrollment until payment is received.

A Note About Financial Aid

Not all your financial aid awards are automatically applied to your fees (the California College Promise Grant is an example of financial aid that *is* automatically applied). After you have applied your financial aid, you are responsible for paying the remaining amount on your account.

Make sure you apply for financial aid as early as possible and review the financial aid deadlines (https://arc.losrios.edu/financial-aid-deadlines).

How to Pay for Classes

Pay your tuition and fees using any of the following methods:

1. Online through eServices (https://ps.losrios.edu/student/signon.html) with a credit card
2. By mail with a check
    - Make checks payable to Los Rios Community College District.
    - Mail your check to the Business Services office.
    - **Make sure to include your student ID number and "enrollment fees" on the check's subject line.**
3. In person
    - Visit American River College's Business Services Office and pay with check, cash, or credit card.
4. Using the student payment plan (https://arc.losrios.edu/admissions/cost-of-attendance/student-payment-plan)
    - Pay your fees over a few months instead of all at once. There is a non-refundable $15 fee each semester you use the student payment plan.

Debts Owed to College

Should a student or former student fail to pay a debt owed to the institution, the institution may withhold permission to any combination of the following from any person owing a debt until the debt is paid (Title 5, California Code of Regulations, Sections 42380 and 42381):

- Registration/enrollment
- Use of facilities for which a fee is authorized to be charged
- Receipt of services, materials, food, or merchandise

If a student believes they do not owe all or part of an unpaid obligation, then they should contact the Business Services office.

Federal Education Tax Credits

Students (or parents of dependent students) may be able to obtain federal tax credits (including the American Opportunity Credit and Lifetime Learning Credit) for enrollment fees if the student:

- Is enrolled in at least six (6) units during any semester or summer session
- 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.

Who Does Not Receive the 1098-T

Students will not receive a 1098-T if any of the following apply:

- The student (or parents of dependent students) did not pay qualified educational expenses in the previous tax year.
- The student received a Promise Grant (which waived their enrollment fees).
- The student is an international student who does not have a social security number (SSN) or individual taxpayer identification number (ITIN).

Fee Refunds

What Fees are Refundable?

Refundable Fees

- Resident enrollment and tuition fee
- Non-resident enrollment and tuition fee
- Universal transit pass (UTP) fee
- Student representation fee
- Health services fee
- Library fees
- Semester parking permit fee

Non-Refundable Fees

- Foreign student application fee
- Daily parking permit fee

How to Get a Refund

Refunds for Enrollment and Tuition Fees

Follow these steps to get a refund for enrollment and tuition fees:

1. **Drop your class(es) by the deadline.** After your class is dropped, money is credited to your eServices account. Keep all documentation that shows the date your class was officially dropped.
2. **Request a refund in eServices (https://arc.losrios.edu/admissions/financial-aid-and-fees/tuition-and-fees/refunds/refund-application-instructions) to get the money out of your eServices account by the deadline.**

Refunds for Health Services Fee

Follow these steps to get a refund for the health services fee:

1. **Drop all of your class(es) by the deadline.** After your class is dropped, money is credited to your eServices account. Keep all documentation that shows the date your class was officially dropped.
2. **Request a refund in eServices (https://arc.losrios.edu/admissions/financial-aid-and-fees/tuition-and-fees/refunds/refund-application-instructions) to get the money out of your eServices account by the deadline.**

Students who depend exclusively upon prayer for healing in accordance with the teachings of a bona fide religious sect, denomination, or organization – or students who receive the California College Promise Grant Part A – can refuse to pay this fee. To be exempted from paying the fee, submit the Health Services Fee Exemption Form (https://losrios.edu/hsf) before the last day of the semester.

Refunds for Semester Parking Permits

To get a refund for a semester parking permit, go to American River College's Business Services Office to fill out a paper refund application before the deadline. Your parking permit decal must be attached to your refund application. You cannot do this step online. Your refund will be processed within six to eight weeks.

Refunds for Student Representation Fee

Follow these steps to get a refund for the student representation fee:

1. **Drop all of your class(es) by the deadline.** After your class is dropped, money is credited to your eServices account. Keep all documentation that shows the date your class was officially dropped.
2. **Request a refund in eServices (https://arc.losrios.edu/admissions/financial-aid-and-fees/tuition-and-fees/refunds/refund-application-instructions) to get the money out of your eServices account by the deadline.**

Students can refuse to pay this fee based on moral, religious, political, or financial grounds. To be exempted from paying the fee, submit the Student Representation Fee Exemption Form (https://losrios.edu/srf) before the last day of the semester (but preferably before you pay your fees).

Refunds for UTP Fee

With the introduction of the digital UTP/Transit Connect (https://arc.losrios.edu/student-resources/technology-resources/apps-and-software-for-students/sacramento-regional-transit-transit-connect-and-universal-transit-pass), students who drop all units by the deadline are eligible to receive a full Universal Transit Pass (UTP) refund. *Students who request a physical version of the UTP are not eligible for a UTP refund.*

Follow these steps to get a refund for the UTP fee:

1. **Drop your class(es) by the deadline.** After your class is dropped, money is credited to your eServices account. Keep all documentation that shows the date your class was officially dropped.
2. **Request a refund (https://arc.losrios.edu/admissions/financial-aid-and-fees/tuition-and-fees/refunds) to get the money out of your eServices account by the deadline.** You can submit this request online.

Important Information About Refunds

Credit Balances in eServices

Money in your eServices account is not automatically refunded to you. If you have a credit balance in your eServices account and you do not request a refund by the last day of instruction of the semester, then you forfeit that money.

Exceptions for Military Students

If you have to withdraw from classes for military purposes, then you will be refunded 100% of your fees and tuition. This is true even if you drop after the deadline or request your refund after the end of the semester.

How long will it take to get my refund?

Refunds are issued within six to eight weeks. If you paid by credit card, then a refund will be issued to the credit card you paid with. All other methods of payment will be refunded by check and mailed to the address on file with Admissions and Records.

While You Are Here

Available Learning Resources

- ACE Program (https://arc.losrios.edu/ace)
- Beaver Cares (https://arc.losrios.edu/beavercares)
- Black Student Success Center (https://arc.losrios.edu/student-resources/unite-center/black-student-success-center)
- Bookstore (https://losrios.bncollege.com)
- Business Services (https://arc.losrios.edu/student-resources/business-services)
- CalFresh (https://arc.losrios.edu/student-resources/support-services/calfresh)
- CalWORKs (https://arc.losrios.edu/calworks)
- Career and Pathways (https://arc.losrios.edu/career-center)
- Center for Leadership and Development (https://arc.losrios.edu/center-for-leadership-and-development)
- Child Development Center (https://arc.losrios.edu/cdc)
- Crisis Assessment Support Team (CAST) (https://arc.losrios.edu/cast)
- Counseling (https://arc.losrios.edu/student-resources/counseling)
- Disability Services and Programs for Students (DSPS) (https://arc.losrios.edu/student-resources/support-services/disability-services-and-programs-for-students)
- Dusty Baker Center (https://arc.losrios.edu/student-resources/dusty-baker-center)
- EOPS, CARE, and NextUp (https://arc.losrios.edu/eops)
- ESL Center (https://arc.losrios.edu/student-resources/learning-resource-center/english-as-a-second-language-center)
- Financial Aid (https://arc.losrios.edu/admissions/financial-aid-and-fees)
- First Year Experience (https://arc.losrios.edu/fye-at-arc)
- Health and Wellness Center (https://arc.losrios.edu/shwc)
- HomeBases (https://arc.losrios.edu/homebases)
- Honors Program (https://arc.losrios.edu/academics/honors-program-office)
- International Students (https://arc.losrios.edu/student-resources/international-student-program)
- Learning Resource Center (https://arc.losrios.edu/lrc)
- Library (https://arc.losrios.edu/student-resources/library)
- Math Learning Center (https://arc.losrios.edu/student-resources/math-learning-center)
- MESA (https://arc.losrios.edu/student-resources/mathematics-engineering-science-achievement)
- Native American Resource Center (https://arc.losrios.edu/student-resources/unite-center/native-american-resource-center)
- Office of Student Conduct (https://arc.losrios.edu/student-advocacy-and-accountability-office)
- Pride Center (https://arc.losrios.edu/pride-center)
- PRISE (https://arc.losrios.edu/student-resources/unite-center/prise-learning-community)
- Prison and Reentry Program (PREP) (https://arc.losrios.edu/student-resources/incarcerated-and-formerly-incarcerated-students/prison-and-reentry-education-program)
- Puente Project (https://arc.losrios.edu/student-resources/unite-center/puente-project)
- Reading Across the Disciplines (RAD) (https://arc.losrios.edu/student-resources/campus-tutoring-programs/reading-across-the-disciplines-(rad))
- Rising Scholars (https://arc.losrios.edu/student-resources/incarcerated-and-formerly-incarcerated-students/rising-scholars)
- Science Success Center (https://arc.losrios.edu/student-resources/campus-tutoring-programs/science-success-center)
- Student Technology Center (https://arc.losrios.edu/student-resources/technology-resources/technology-support/student-technology-center)
- Student Support Center (https://arc.losrios.edu/welcome-and-support-center)
- Technology Resources (https://arc.losrios.edu/student-resources/technology-resources)
- Transfer Center (https://arc.losrios.edu/transfer-center)
- TRIO SSS (https://arc.losrios.edu/student-resources/trio-student-support-services)
- TRIO Educational Talent Search (https://arc.losrios.edu/trio-ets)
- TRIO Upward Bound Math and Science (https://arc.losrios.edu/student-resources/trio-upward-bound)
- Tutoring (https://arc.losrios.edu/student-resources/campus-tutoring-programs)
- Umoja Sakhu Learning Community (https://arc.losrios.edu/student-resources/unite-center/umoja-sakhu-learning-community)

- UndocuScholar (https://arc.losrios.edu/student-resources/unite-center/undocuscholar-resource-connection)
- UNITE (https://arc.losrios.edu/student-resources/unite-center)
- Veterans Resource Center (https://arc.losrios.edu/vrc)
- Work Experience and Internship Program (https://arc.losrios.edu/x2365.xml)
- WorkAbility III (https://arc.losrios.edu/student-resources/workability-iii)
- WEAVE Confidential Advocate (https://arc.losrios.edu/campus-life/health-and-safety/sexual-violence-and-title-ix-protections/weave-confidential-advocate)
- Writing Across the Curriculum (WAC) (https://arc.losrios.edu/student-resources/campus-tutoring-programs/the-writing-center)

Financial Aid

Get the Financial Help You Need

Money shouldn't get in the way of getting a college education. The Financial Aid Office is here to help you get the financial support you need to afford college.

Financial Aid Eligibility

Generally, to be eligible for financial aid, students must:

- Demonstrate financial need (for most programs)
- Be a US citizen or an eligible non-citizen
- Have a valid Social Security number (with the exception of students from the Republic of the Marshall Islands, Federated States of Micronesia, or the Republic of Palau)
- Be enrolled or accepted for enrollment as a regular student in an eligible degree or certificate program
- Be enrolled at least half-time to be eligible for Direct Loan Program funds
- Maintain satisfactory academic progress
- Sign the certification statement on the Free Application for Federal Student Aid (FAFSA) stating that:
  - You are not in default on a federal student loan and do not owe money on a federal student grant
  - You will use federal student aid only for educational purposes
- Show you're qualified to obtain a college or career school education by one of the following:
  - Having a high school diploma or a recognized equivalent such as a General Educational Development (GED) certificate
  - Completing a high school education in a homeschool setting approved under state law (or – if state law does not require a homeschooled student to obtain a completion credential – completing a high school education in a homeschool setting that qualifies as an exemption from compulsory attendance requirements under state law)
  - Meeting one of the ability-to-benefit alternatives (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/financial-aid#benefit)

Ability-to-Benefit Alternatives

If you were enrolled in college or career school prior to July 1, 2012, then you may show you're qualified to obtain a higher education by one of the following:

- Passing an approved ability-to-benefit test* (if you don't have a diploma or GED, a college can administer a test to determine whether you can benefit from the education offered at that school)
- Completing six credit hours or equivalent course work toward a degree or certificate (you may not receive aid while earning the six credit hours)

* For more information about these criteria, talk to the Financial Aid Office.

Contact Financial Aid Office

Phone: (916) 484-8437

Fax: (916) 484-8640

Confidential Fax: (916) 978-0266

For additional contact information, location information, and hours, visit the Financial Aid Webpage (https://arc.losrios.edu/student-resources/financial-aid).

Free Application for Federal Student Aid

The Free Application for Federal Student Aid (FAFSA) (https://studentaid.gov/h/apply-for-aid/fafsa) is a form for US Citizens, permanent residents, or eligible non-citizens to get financial aid. Financial aid includes fee waivers, grants, work-study, loans, and scholarships. Submit the FAFSA each year you are in college – it only takes about 30 minutes to complete when you are prepared.

Anyone who's required to provide information on the FAFSA form will need to create a Federal Student Aid ID (FSA ID). This includes the student and, if applicable, the student's spouse, biological/adoptive parent, or parent's spouse (if remarried). All contributing individuals must provide consent to have information transferred to the FAFSA form. If consent is not given, then the FAFSA form will remain incomplete and the student will be ineligible for federal student aid.

Undocumented students cannot apply for aid through the FAFSA but may be eligible for state financial aid through the California Dream Act (https://dream.csac.ca.gov/landing).

Dates and Deadlines

The 2026-2027 academic year includes fall 2026, spring 2027, and summer 2027. Submit the FAFSA as early as you can, so you have plenty of time to figure out how to pay for college before classes begin.

- Date FAFSA available: October 1, 2025
- FAFSA priority filing deadline: March 3, 2026
- Tax filing year to use for FAFSA: 2024

You can submit the FAFSA after the FAFSA Priority Filing Deadline until June 30 of the following year, but priority is given on a first-come, first-served basis. You may not be considered for a Cal Grant if you submit your application after the FAFSA Priority Filing Deadline.

Federal School Code

American River College's federal school code is **001232**. Make sure you include this on your financial aid application if you want to receive financial aid at American River College.

California Dream Act Application

The California Dream Act (https://dream.csac.ca.gov/landing) allows undocumented and nonresident students who qualify for a non-resident exemption under AB 540, AB 2000, or SB 68 to receive certain types of state-based financial aid. The California Dream Act Application (CADAA) is separate from the FAFSA and is unrelated to the federal Deferred Action for Childhood Arrivals (DACA) program. Students should only complete one of these financial aid applications–not both.

Confidentiality: *All information submitted through the CADAA is kept private and protected. It is not shared with federal agencies and will not affect immigration status or future immigration applications.*

Who Can Apply?

You may complete the CADAA if:

- **You are *one* of the following:**
  - Undocumented
  - A DACA recipient (valid or expired)
  - A U Visa holder
  - A Temporary Protected Status (TPS) holder
  - An asylum seeker with a pending case
  - A student from a mixed-status family*

*You are considered part of a mixed-status family if:

- You are a U.S. citizen or eligible noncitizen, and

- Your parent(s) or spouse (FAFSA contributors) do not have a Social Security Number (SSN).

Financial Aid Available for Undocumented Students

Eligible students may qualify for the following:

- State grants (California College Promise Grant, Cal Grants, Chafee Grants, and Student Success Completion Grant)
- Campus support programs (EOPS, CARE, or CalWORKs)
- Certain scholarships
- Los Rios Promise Program

To simplify the process, the CADAA automatically includes the AB 540 affidavit required for financial aid eligibility.

CADAA Priority Filing Deadline

To be considered for state financial aid, submit your CADAA by the **March 3, 2026, priority deadline**. You may not qualify for a Cal Grant if you submit after the priority deadline.

Academic Year 2026-2027

The 2026-2027 academic year includes fall 2026, spring 2027, and summer 2027.

- Application available: October 1, 2025
- Priority deadline: March 3, 2026
- Tax year used: 2024

Federal School Code

American River College's federal school code is **001232**. Make sure you include this on your financial aid application if you want to receive financial aid at American River College.

Promise Programs

What is the Los Rios Promise Program?

The Los Rios Promise Program covers the cost of tuition for first-time, new, eligible students. You may also hear it referred to as California College Promise or AB 19 (Assembly Bill 19) and AB 2 (Assembly Bill 2).

Costs Covered

The Promise Program covers:

Resident tuition and enrollment fees (the cost of your classes), at **$46 per unit**

Costs Not Covered

The Promise Program does not cover:

Health Services fee

Student Representation fee

Books

Transportation

Living expenses

Eligibility Requirements

Student eligibility is based on funding availability. To be eligible, you must:

- Submit (and receive confirmation of processing) a complete CCCApply application for enrollment (https://arc.losrios.edu/admissions/get-started-and-apply/first-time-college-student-admission-and-enrollment-steps) for the term for which you are applying.
- Be a California resident (learn about residency requirements (https://arc.losrios.edu/residency-requirements)).
- Complete a Financial Aid application – either the Free Application for Federal Student Aid (https://studentaid.gov/h/apply-for-aid/fafsa) (FAFSA) or California Dream Act Application (https://dream.csac.ca.gov/landing) (CADAA) – by the deadline (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/financial-aid/promise-programs#deadline).
- Enroll in at least 12 units by the deadline (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/financial-aid/promise-programs#deadline).
- Complete each semester with a minimum 2.0 GPA and a 66.67% completion rate (learn more about satisfactory academic progress (https://arc.losrios.edu/sap), or SAP).

Eligibility for Mid-Year and First-Time New Recipients

You are only eligible for the Los Rios Promise Program for two consecutive award years beginning with your initial enrollment in the summer/fall term. If your first enrollment is the spring term, then you are only eligible for 1.5 years (not the full two years), provided that you meet the enrollment and FAFSA/CADAA deadline (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/financial-aid/promise-programs#deadline).

Eligibility for a Second Year of the Los Rios Promise Program

A second year of eligibility will be reviewed for you if you received the waiver in your first year under the Los Rios Promise Program or were eligible for the California College Promise Grant in your first year. You will automatically be awarded second-year funding if you:

- Submit the FAFSA/CADAA by the deadline (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/financial-aid/promise-programs#deadline).
- Enroll in a minimum of 12 units by the enrollment date requirement.
- Maintain a cumulative 2.0 GPA, with a 66.67% cumulative completion rate (learn more about SAP (https://arc.losrios.edu/sap)).

You must contact the Financial Aid office if you are transferring in from another California community college. If you are transferring from a college or university outside of California, then you are not eligible for the Los Rios Promise Program.

Deadlines

Semester	Deadline for Completed/Processed FAFSA/CADAA	Deadline to be Enrolled in 12 or More Units
Summer 2026	N/A	June 17, 2026
Fall 2026	September 8, 2026	September 8, 2026
Spring 2027	February 1, 2027	February 1, 2027

Applications **must be completed and processed by the deadlines**. "Processed" means that you must have received communication from the Department of Education indicating you have successfully submitted your FAFSA and you received an email from Los Rios indicating your FAFSA has been received. Alternatively, if you completed a CADAA, then you must have received communication from the California Student Aid Commission indicating you have successfully submitted your CADAA as well as an email from Los Rios indicating your CADAA has been received. Please plan accordingly and complete the application **at least three weeks before the deadline**.

Eligibility is based on funding availability. If you are determined eligible but do not enroll for subsequent terms (excluding summer) by the enrollment dates and/or if you fail to complete the FAFSA/CADAA for the second year, then you will be ineligible for those terms.

FAQ

How is a "first-time student" defined?

If you are entering college directly from high school, attended adult school to complete your high school graduation requirements, or have never attempted college units, then you are considered a "first-time" student.

Am I still a first-time student if I earned college credit while attending high school or adult school to complete my high school education?

Yes! College credit earned while in high school (Dual Enrollment) or adult school does not affect your eligibility for the Los Rios Promise Program as long as you haven't yet earned a degree or certificate. However, you are not eligible for this tuition waiver if you earned a college certificate or degree while in high school.

Grants

What Is a Grant?

A grant is money given to you by the federal or state government that you don't usually have to pay back.

Types of Grants for Community College Students

Learn more about the types of grants available to community college students, eligibility, and how and when to apply.

Cal Grant A

Cal Grant A is available to low-income and middle-income California resident students. It may be used for a program that is at least two academic years in length resulting in an associate or baccalaureate degree of 48 semester units or the equivalent. If awarded at Los Rios, the award will be held in reserve for up to two academic years until the student transfers to a tuition-charging institution unless the student qualifies for the Cal Grant A Student with Dependent (SWD) Children access award. Los Rios abides by CSAC Cal Grant A regulations.

Cal Grant A awards are available during the Fall and Spring terms only. Cal Grant funding is not available for the Summer term.

How to Apply

- Complete the FAFSA (https://studentaid.gov/h/apply-for-aid/fafsa) or the California Dream Act Application (https://dream.csac.ca.gov/landing) (CADAA) by March 2.
- Submit a Verified Cal Grant GPA (https://www.csac.ca.gov/post/cal-grant-gpa-verification-form) (high school GPA or community college GPA) to the California Student Aid Commission (CSAC) by March 2. Please note:
  - California community colleges have a second deadline – September 2 – for some types of Cal Grant.
  - American River College submits electronically-eligible GPAs.
- Create an account at Web Grants for Students (https://mygrantinfo.csac.ca.gov/) after you submit your FAFSA or CADAA to review your award status.

After you submit your completed FAFSA/CADAA and high school GPA, then you will be considered (by CSAC) for the appropriate Cal Grant award based on GPA, financial need, and college of attendance.

Grant Amounts

Access awards for students with dependents are based on enrollment status as follows:

Enrollment	Semester-Based Awards
Full-Time	$3,000 SWD
Three-Quarter Time	$2,250 SWD
Half-Time	$1,500 SWD

Cal Grant B

Cal Grant B is a need-based program and provides free money to low-income students who are:

- Enrolled in a program of study resulting in an associate, baccalaureate degree, or certificate of at least 24 semester units in length
- Enrolled and attending at least six eligible units per semester

Cal Grant B awards are available during the Fall and Spring terms only. Cal Grant funding is not available for the Summer term.

How to Apply

- Complete the FAFSA (https://studentaid.gov/h/apply-for-aid/fafsa) or the California Dream Act Application (https://dream.csac.ca.gov/landing) (CADAA) by March 2.
- Submit a Verified Cal Grant GPA (https://www.csac.ca.gov/post/cal-grant-gpa-verification-form) (high school GPA or community college GPA) to the California Student Aid Commission (CSAC) by March 2. Please note:
  - California community colleges have a second deadline – September 2 – for some types of Cal Grant.
  - American River College submits electronically-eligible GPAs.
- Create an account at Web Grants for Students (https://mygrantinfo.csac.ca.gov/) after you submit your FAFSA or CADAA to review your award status.

After you submit your completed FAFSA/CADAA and high school GPA, then you will be considered (by CSAC) for the appropriate Cal Grant award based on GPA, financial need, and college of attendance.

Eligibility and Grant Amounts

See CSAC Cal Grant eligibility requirements (https://www.csac.ca.gov/cal-grant).

Dependent students, or independent students without dependent children, receive up to $1,648 annually; students with dependent children younger than 18 (*Students With Dependents* annual certification (https://www.csac.ca.gov/post/students-dependents) required) receive up to $6,000 annually. Awards are pro-rated according to eligible enrollment as per the following semester-based chart:

Student Type	Full-Time Amount	¾-Time Amount	½-Time Amount	Less than ½-Time Amount
Dependent Students or Independent without Dependent Children	$824	$618	$412	$0
Students with Dependent Children	$3,000	$2,250	$1,500	$0

Cal Grant Recalculation Dates (CRD) apply – see financial aid deadlines (https://arc.losrios.edu/financial-aid-deadlines).

In addition, awarded Cal Grant B students enrolled in 12 or more eligible units per semester might become eligible to receive the additional Student Success Completion Grant (SSCG). Students enrolled in 12 to 14.99 financial aid-eligible units will receive $1,298 SSCG for that semester. Students enrolled in 15 or more financial aid-eligible units will receive $4,000 for that semester.

Cal Grant C

Cal Grant C is a need-based program that provides free money to low-income students who are:

- Pursuing an occupational or technical program of least four months in length
- Enrolled and attending at least six eligible units per semester

Cal Grant C awards are available during the Fall and Spring terms only. Cal Grant funding is not available for the Summer term.

How to Apply

- Complete the FAFSA (https://studentaid.gov/h/apply-for-aid/fafsa) or the California Dream Act Application (https://dream.csac.ca.gov/) (CADAA) by September 2.

- Create an account at Web Grants for Students (https://mygrantinfo.csac.ca.gov/) after you submit your FAFSA or CADAA to review your award status.

If the California Student Aid Commission (CSAC) determines you are eligible for a Cal Grant C, then complete the Cal Grant C Supplement Form through Web Grants for Students (https://mygrantinfo.csac.ca.gov/) by the requested deadline.

Eligibility and Grant Amounts

See CSAC Cal Grant eligibility requirements (https://www.csac.ca.gov/cal-grant).

Dependent students, or independent students without dependent children, receive up to $1,094 annually; students with dependent children younger than 18 (*Students With Dependents* annual certification (https://www.csac.ca.gov/post/students-dependents) required) receive up to $4,000 annually. Awards are pro-rated according to eligible enrollment as per the following semester-based chart:

Student Type	Full-Time Amount	¾-Time Amount	½-Time Amount	Less than ½-Time Amount
Dependent Students or Independent without Dependent Children	$547	$410	$274	$0
Students with Dependent Children	$2,000	$1,500	$1,000	$0

Cal Grant Recalculation Dates (CRD) apply – see financial aid deadlines (https://arc.losrios.edu/financial-aid-deadlines).

In addition, awarded Cal Grant C students enrolled in 12 or more eligible units per semester might become eligible to receive the additional Student Success Completion Grant (SSCG). Students enrolled in 12 to 14.99 financial aid-eligible units will receive $1,298 SSCG for that semester. Students enrolled in 15 or more financial aid-eligible units will receive $4,000 for that semester.

California College Promise Grant

The California College Promise Grant is just for California community college students and does not have to be repaid.

What It Covers

The California College Promise Grant waives enrollment fees for eligible students. It does not cover the cost of books or other expenses.

Eligibility

You may qualify for the California College Promise Grant if you are a California resident or are exempt from nonresident fees under AB 540 **and** you meet the criteria of Type A, Type B, or Type C described below.

Type A

You are receiving Temporary Aid For Needy Families (TANF), Supplemental Security Income (SSI/SSP), or General Assistance.

Type B

You meet the income standards listed below. Please note:

- Family size means the number of people in your household, including yourself
- Total family income means adjusted gross income and/or untaxed income for the year listed

Family Size	2023 Total Family Income (for 2025-2026 school year)	2024 Total Family Income (for 2026-2027 school year)
1	$22,590	$23,475
2	$30,660	$31,725
3	$38,730	$39,975
4	$46,800	$48,225
5	$54,870	$56,475
6	$62,940	$64,725

Family Size	2023 Total Family Income (for 2025-2026 school year)	2024 Total Family Income (for 2026-2027 school year)
7	$71,010	$72,975
8	$79,080	$81,225
Note	For each additional family member, add $8,070	For each additional family member, add $8,250

Type C

You submitted the Free Application for Federal Student Aid (FAFSA) or the California Dream Act application (for AB 540 students who are not US citizens or eligible non-citizens) and it shows you have unmet financial need.

How to Apply

To apply, fill out the California College Promise Grant (https://us.cccstart.org/grant) application online. Alternatively, you can complete the Free Application for Federal Student Aid (FAFSA (https://studentaid.gov/h/apply-for-aid/fafsa)) or CA Dream Act Application (CADAA (https://dream.csac.ca.gov/)).

Maintaining the California College Promise Grant

If you qualify for the California College Promise Grant, then make sure you continue to meet the following academic and progress standards to keep receiving the grant funds.

- **Academic**: Maintain a grade point average (GPA) of 2.0 or higher. If your cumulative GPA falls below 2.0 for two consecutive primary terms (fall/spring semesters), then you may lose your grant eligibility.
- **Progress**: Complete more than 50% of your coursework. If the cumulative number of units you complete is not more than 50% in two consecutive primary terms (fall/spring semesters, or fall/winter/spring quarters), then you may lose your grant eligibility.
- **Combination of academic and progress standards**: Any combination of two consecutive terms of cumulative GPA below 2.0 and/or cumulative unit completion of not more than 50% may result in loss of grant eligibility.

Regaining the California College Promise Grant

If you lose your California College Promise Grant due to not meeting the academic and progress standards, then you may appeal the loss by following the process for Loss of Priority Registration (https://arc.losrios.edu/admissions/enroll-in-classes/loss-of-priority-registration).

Admissions and Records with notify you once the form has been processed. If approved, then your California College Promise Grant will be reinstated.

Chafee Grant for Foster Youth

Chafee Grants are awarded by the State of California to current or former foster youth. Chafee Grants do not have to be repaid.

What it Covers

A Chafee Grant can be used to pay for tuition, fees, books, supplies, transportation, living expenses, and child care.

Eligibility

To qualify for a Chafee Grant, you must meet the following criteria:

- You are a current or former foster youth who was a ward of the court, living in foster care, for at least one day between the ages of 16 and 18
- If you are or were in Kin-GAP, a non-related legal guardianship, or were adopted, you are only eligible if you were a dependent or ward of the court, living in foster care, for at least one day between the ages of 16 and 18
- You have not reached your 26th birthday as of July 1 of the award year
- You have not participated in the program for more than five years (consecutive or otherwise)

How to Apply

To apply for a Chafee Grant, you must submit the following each year you are eligible:

- FAFSA (https://studentaid.gov/h/apply-for-aid/fafsa) or the California Dream Act (https://dream.csac.ca.gov/) application (if you do not have a social security number)
- The Chafee Grant (https://chafee.csac.ca.gov) application

Federal Pell Grant

Federal Pell Grant are awarded by the federal government and do not have to be repaid.

What it Covers

Federal Pell Grant can be used for tuition, fees, books, supplies, transportation, living expenses, and child care.

Eligibility

Federal Pell Grant is based on financial need, cost of attendance, the number of financial aid eligible units enrolled, and how long you plan to attend college. Eligible students can receive the Federal Pell Grant for up to six years (12 full-time semester or the equivalent), or 600%.

Pell Grant are usually only given to undergraduate students who have not earned a bachelor's degree or higher. In some cases, a student enrolled in a post-baccalaureate teacher certification program can receive a Federal Pell Grant. You are not eligible to receive a Pell Grant if you are incarcerated or are subject to an involuntary civil commitment upon completion of a period of incarceration for a forcible or non-forcible sex offense.

DACA and undocumented AB 540 students are not eligible to receive Federal Pell Grant.

How to Apply

Submit the FAFSA (https://studentaid.gov/h/apply-for-aid/fafsa) every year to see if you qualify for a Federal Pell Grant. The amount of other student aid you qualify for does not affect the amount of your Federal Pell Grant.

Federal Supplemental Educational Opportunity Grant (FSEOG)

Federal Supplemental Educational Opportunity Grants are awarded by the federal government and do not have to be repaid. American River College has a limited amount of FSEOG funds, so make sure you submit your FAFSA as early as possible.

What it Covers

A FSEOG can be used for tuition, fees, books, supplies, transportation, living expenses, and child care. You can receive $100 to $600 per year.

Eligibility

FSEOGs are awarded based on financial need, how early you apply, number of financial aid eligible units enrolled, and total amount of Financial Aid.

FSEOGs are only given to undergraduate students who have not earned a bachelor's or a professional degree.

DACA and AB 540 students are not eligible to receive FSEOGs.

How to Apply

Submit the FAFSA (https://studentaid.gov/h/apply-for-aid/fafsa) each year to see if you qualify for a FSEOG.

Student Success Completion Grant (SSCG)

What it Covers

The Student Success Completion Grant (SSCG) provides up to $8,000 (and up to $10,500 for Former Foster Youth [FFY]) annually to pay for educational costs.

Due to limited funding, SSCG is awarded on a first-come, first-served basis. SSCG awards may be granted for one term only and are subject to availability of funds.

Eligibility

To qualify for an SSCG, you must:

- Be a Cal Grant B or C recipient
- Meet federal satisfactory academic progress (SAP)
- Be a California resident or be exempt from paying nonresident tuition
- Be an undergraduate student pursuing an associate degree, certificate, or transfer program

Grant Amounts

Term-Based Funding

Attendance status	Semester units and term
For students who enroll in 12 to 14.99 units	$1,298 per primary term
For students who enroll in 15+ units	$4,000 per primary term
Former Foster Youth students who enroll in 12+ units and FFY who are in a DSPS program with an approved academic accommodation plan who enroll in 9+ units	$5,250 per primary term
Students in a disabled student program who enroll in 9+ units	$1,298 per primary term

Students enrolled in 12 to 14.99 financial aid-eligible units will receive $1,298 for that semester. Students enrolled in 15 or more financial aid-eligible units will receive $4,000 for that semester.

Effective Fall 2025, DSPS-eligible students who enroll in nine (9) or more financial aid-eligible units per semester who are considered full-time as part of the DSPS Academic Accommodation Plan (AAP) will be awarded $1,298 per semester. Former Foster Youth students who are in a DSPS program with an approved AAP who enroll in nine (9) or more financial aid-eligible units will be awarded $5,250 per semester.

The Cal Grant Recalculation Date (https://arc.losrios.edu/student-resources/financial-aid/financial-aid-deadlines) will be applied to determine course enrollment and award amounts.

How to Apply

Students who qualify will be notified. No additional application is required to determine SSCG eligibility.

Federal Work-Study

What is Federal Work-Study?

The Federal Work-Study (FWS) program provides jobs to students to help them pay for their educational expenses.

Eligibility

To be eligible, you must:

- Have a complete financial aid file
- Have unmet financial need
- Be enrolled in at least six financial aid course-eligible units at American River College*
- Maintain satisfactory academic progress

* If you are enrolled at multiple Los Rios colleges, then you must have an approved consortium on file for those units to be counted toward your enrollment status.

You are not guaranteed a FWS job just because you are eligible for FWS. FWS jobs are limited, so make sure you apply for a FWS job as early as possible.

Students with Bachelor's degrees may be eligible for FWS. To be considered for eligibility, these students will be asked to submit an appeal.

Hours

FWS students work an average of 17 hours per week during the fall and spring semesters. Students may be employed for no more than 26 hours per week during a semester and no more than 40 hours per week between semesters. The number of hours may change depending on the needs of the department. Summer FWS hours are based on funding availability.

You may not work more than the number of hours you were awarded.

Pay

FWS students are paid an hourly rate at minimum wage. On average, FWS students earn up to $7,000 during the school year. Paychecks are distributed on the tenth of each month.

Disclaimer

We reserve the right to reduce your FWS award at the end of the fall or spring semester for hours not worked or due to ineligibility. Your FWS award may also be reduced if your financial need changes. You will be notified of any change via email and it is your responsibility to notify your supervisor of the change.

Scholarships

What is a Scholarship?

A scholarship is money given to you to help pay for your education or related expenses. Scholarships come from a variety of sources, such as your college or a private organization.

Examples of types of scholarships:

- Merit scholarships are based on a student's achievements.
- School scholarships are given to students by the school they attend.
- Work scholarships require students to work to receive scholarship money.
- Field of Study scholarships are given to students pursuing a specific field of study or academic program.
- Need scholarships are based on financial need.

Learn More About Scholarships (https://arc.losrios.edu/scholarships)

Federal Direct Loans

What is a Federal Direct Loan?

A federal direct loan is money you borrow from the government that you have to pay back with interest. We encourage students to apply for grants and scholarships before taking out a student loan. A loan is a serious and long-term obligation.

Loan Eligibility

To be eligible for a federal student loan, you must:

- Submit the Free Application for Federal Student Aid (FAFSA) (https://studentaid.gov/h/apply-for-aid/fafsa)

- Demonstrate that you are qualified to enroll in college by one of the following means:
  - You have a high school diploma
  - You have a General Education Development (GED) Certificate
  - You passed the California High School Proficiency Exam (CHSPE)
- Be a US citizen or eligible non-citizen with a social security number (SSN)
- Be enrolled in an eligible degree or certificate program
- Be enrolled in six units that apply toward the completion of your program
- Maintain satisfactory academic progress
- Certify that you will use federal financial aid only for educational purposes
- Certify that you are not in default on a federal student loan and do not owe money on a federal student grant

The One Big Beautiful Bill Act (OBBBA) requires all institutions participating in the Federal Direct Loan Program to apply a federally established Schedule of Reductions (SOR). The reduction is based on the number of financial aid applicable units (https://arc.losrios.edu/admissions/financial-aid-and-fees/financial-aid-policies/course-applicability) you are enrolled in during the academic year.

The Los Rios Community College District calculates Federal Direct Loan disbursements based on your enrollment status each semester. Rather than dividing your annual loan amount equally between semesters, the amount you receive is determined by the number of units you are
enrolled in for that specific semester. This is known as proportional loan disbursements.

Why Your Loan Amount Might Be Lower Than Expected

A new federal law (the One Big Beautiful Bill Act) requires all schools to reduce federal loan amounts for students who aren't enrolled full-time when their loan is disbursed.

What this means for you:

If you're not enrolled in 12 units (full-time) and currently attending classes on the day your loan is scheduled to pay out, your loan will be reduced to match the number of units you're actually taking at that time. This could mean you receive less money than you originally accepted.

Please review the following questions:

1. Are you enrolled in fewer than 12 units ?
2. Do you have any classes that begin later in the semester and are not already in session?

If you answered ***yes*** to either question , your federal loan amount will be reduced based on your enrollment status at the time of disbursement.

Master Promissory Note

All borrowers must sign the Master Promissory Note (MPN) annually. New borrowers must also complete entrance loan counseling through the Student Aid website (https://studentaid.gov/entrance-counseling/).

Bachelor's Degree Holders

Students with Bachelor's degrees may be eligible for federal loans (both subsidized and unsubsidized). These students will be asked to submit an appeal to be considered for eligibility.

Types of Federal Loans

Subsidized Direct Loans

Subsidized direct loans are given to eligible students who demonstrate financial need.

The federal government pays the interest on subsidized loans while you are enrolled in school at least half-time (six units). If you graduate, drop below half-time, or withdraw from school, then you have a six-month grace period where the federal government will continue to pay the interest on your loan. After the six-month grace period, you are responsible for paying the interest on your loan.

Unsubsidized Direct Loans

Unsubsidized direct loans are given to eligible students, regardless of their financial need. The combined amount of an unsubsidized direct loan and all other financial aid that you receive cannot exceed the cost of attendance.

Interest accrues from the time the loan is disbursed, and interest payments begin immediately but can be deferred until you are done with school. It is advantageous to pay the interest while you are in school. This way, the debt will be the principal amount only when repayment begins. Regular monthly payments begin six months after you graduate, drop below half-time status, or withdraw from school.

Annual Loan Limits

Year	Dependent Students (except students whose parents are unable to obtain PLUS Loans)	Independent Students (and dependent undergraduate students whose parents are unable to obtain PLUS Loans)
First-Year Undergraduate Annual Loan Limit	$5,500 – no more than $3,500 of this amount may be in subsidized loans.	$9,500 – no more than $3,500 of this amount may be in subsidized loans.
Second-Year Undergraduate Annual Loan Limit	$6,500 – no more than $4,500 of this amount may be in subsidized loans.	$10,500 – no more than $4,500 of this amount may be in subsidized loans.
Subsidized and Unsubsidized Aggregate Loan Limit	$31,000 – no more than $23,000 of this amount may be in subsidized loans.	$57,500 for undergraduates – no more than $23,000 of this amount may be in subsidized loans.

View Federal Student Loan interest rates (https://studentaid.gov/understand-aid/types/loans/interest-rates).

How to Apply for Loans

Steps to Apply (for Academic Year – Fall/Spring Semesters)

Step 1: Federal Direct Loan Request in eServices

Only students who received an Award Notification may submit a Federal Loan Request.

1. Log in to eServices (https://ps.losrios.edu/student/signon.html).
2. Select *Financial Aid*.
3. Select *Financial Aid Award Year*.
4. Click on the *Federal Direct Loan Request* link.

Step 2: Loans Offered

A notification will be sent to your message center within a week for you to accept the offer.

Step 3: Accept, Decline, or Reduce Loans Offered

(Note: Firefox browser is recommended.)

Once you receive notification that your loans were offered, you can accept the amount, decline the offer, or reduce the amount to fit your financial need.

To Accept: Once you receive notification that your loans were offered, you can accept the amount offered. After you accept the loans offered, you will see checklist items added to your *To Do List*.

To Decline: Once you receive notification that your loans were offered, you can decide to decline the loans completely.

1. Under the Awards, click on *Accept/Decline*.
2. Click on the *edit/pencil* icon.
3. Under *Award Decision* column, click *Accept*/*Decline* to accept or decline the award.
4. Click the *Submit* button to submit your loan.

Federal Direct Loans screenshot
(https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/financial-aid/shared/img/body-misc/financial-aid/fa-fed-direct-accept-decline-screenshot.jpg)

To Reduce: Once you receive notification that your loans were offered and you have determined that you do not need the amount offered, but would like a reduced amount, please follow these steps:

1. Under the Awards, click on *Accept/Decline*.
2. Click on the *edit/pencil* icon.
3. To **reduce** the award, click *Accept* under the *Award Decision* column
4. Check the *Reduce* box.
5. Enter the updated amount.
6. Click the *Submit* button to submit your loan.

After you accept the loans offered, you will see checklist items added to your To Do List.

Federal Direct Loans screenshot
(https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/financial-aid/shared/img/body-misc/financial-aid/fa-fed-direct-reduce-screenshot.jpg)

If the process doesn't work for you, please contact the Financial Aid Office (https://arc.losrios.edu/financial-aid).

Step 4: Origination (Automated Process)

After loans have been originated, you will then be allowed to complete the Master Promissory note (MPN) process. New borrowers must also complete undergraduate Student Loan Entrance Counseling (https://studentaid.gov/entrance-counseling/).

Students are encouraged to electronically sign the MPN annually via the Federal Student Aid/Master Promissory Note (https://studentaid.gov/mpn/) webpage.

Alternatively, students can complete, print, sign and mail a paper MPN.* Paper MPNs are available at the financial aid office upon request.

**A mailed paper MPN may delay your refund for up to two months.*

Mail a paper MPN (standard delivery) to:

US Department of Education
P.O. Box 1130
Fairfax, VA 22033

Mail a paper MPN (overnight or commercial courier) to:

US Department of Education
4050 Legato Road, #1100
Fairfax, VA 22033

Step 5: Disbursement

Typically, loans are disbursed to students who have satisfied all the requirements to receive loans.

Steps to Apply (for Summer Term)

If this is your first time applying for student loans for the academic year, then refer to the previous section, *Steps to Apply (for Academic Year – Fall/Spring Semesters)*.

This section explains how a student who already has Federal Direct Loans for the academic year can meet the criteria and apply for summer Federal Direct Loans.

Step 1: Meet the Criteria

Students must meet the following criteria to apply for Summer Federal Direct Loans:

1. Have not borrowed the maximum annual loan limit for your grade level and dependency status:

Year	Dependent Students (except students whose parents are unable to obtain PLUS Loans)	Independent Students (and dependent undergraduate students whose parents are unable to obtain PLUS Loans)
First-Year* Undergraduate Annual Loan Limit	$5,500 – no more than $3,500 of this amount may be in subsidized loans.	$9,500 – no more than $3,500 of this amount may be in subsidized loans.
Second-Year Undergraduate Annual Loan Limit**	$6,500 – no more than $4,500 of this amount may be in subsidized loans.	$10,500 – no more than $4,500 of this amount may be in subsidized loans.
Subsidized and Unsubsidized Aggregate Loan Limit	$31,000 – no more than $23,000 of this amount may be in subsidized loans.	$57,500 for undergraduates – no more than $23,000 of this amount may be in subsidized loans.

*First-Year is a student who has completed less than 30 units before the start of the semester.
**Second-Year is a student who has completed 30 or more units before the start of the semester.

2. Meet satisfactory academic progress (SAP) for the term or have an approved summer SAP appeal.

Step 2: Enroll in Courses

Enroll in at least six (6) units of financial aid-eligible courses.

Step 3: Submit Loan Request

Submit the *Summer Loan Request Form* at least one (1) week before your summer classes end. **Note:** Download the form to your computer and complete it in an application such as Adobe Acrobat or Preview. Do not fill out the form in your internet browser window. Contact the Financial Aid Office (https://arc.losrios.edu/financial-aid) if you have questions.

Step 4: Wait for Processing

Allow up to two (2) weeks for your summer loan request to be processed.

Borrower's Rights and Responsibilities

When you accept a loan, you accept legal rights and responsibilities that last until the loan is repaid.

Borrower's Rights

You have the right to:

- Receive a copy of your promissory note either before or at the time the loan is made
- Receive a disclosure statement before repayment on your loan begins, including information about:
  - Interest rates
  - Fees
  - Loan balance
  - The number of payments
  - The amount of each payment
- A grace period after you leave school or drop below half-time status and before your loan payments begin (if applicable)
- Prepay all or part of your loans without a repayment penalty
- Receive written notice if your loan is sold to a new holder
- Apply for deferment for your loan payments for certain specified periods (if eligible)
- Request forbearance from the holder of your loan if unable to make payments and don't qualify for deferment
- Receive proof when your loan is paid in full

Borrower's Responsibilities

You agree to:

- Repay your loan(s), including accrued interest and fees, even if you do not:
  - Complete or find satisfaction in your education
  - Complete the program within the regular timeframe
  - Obtain employment
- Attend exit counseling before you leave school or drop below half-time enrollment
- Notify your loan holder within ten days if you:
  - Change your name, address, or phone number
  - Drop below half-time status
  - Withdraw from school
  - Transfer to another school
  - Change your graduation date
- Direct all correspondence to your loan holder or servicer
- Make monthly payments on your loan after leaving school, unless you are granted a deferment or forbearance
- Notify your loan holder of anything that might change your eligibility for an existing deferment

First-Time Borrowers

If you are a first-time borrower or you had no outstanding balance on a Direct Loan, for federal regulations, you cannot receive a disbursement until 30 days after the first day of your enrolled class.

Visit the Student Aid website to learn more about receiving financial aid (https://studentaid.gov/complete-aid-process/receive-aid).

Loan Exit Counseling

All students who receive a loan must complete mandatory online loan exit counseling through the Department of Education. Loan exit counseling provides important information regarding repayment, deferment, and default prevention.

How to Complete Loan Exit Counseling

Visit the Student Aid website to complete loan exit counseling (https://studentaid.gov/exit-counseling/). You will need your FSA ID and password to complete the loan exit counseling. Be sure to select American River College (federal school code: 001232) when asked, otherwise the Financial Aid Office will not receive confirmation that you completed the requirement.

When to Complete Loan Exit Counseling

Loan recipients must complete loan exit counseling when they do any of the following:

- Withdraw from college
- Drop below half-time units
- Transfer to another college
- Graduate

Failure to complete loan exit counseling may result in the delay of your financial aid processing.

Private Loans

What is a Private Loan?

A private loan is money you borrow from a private lender that you have to pay back with interest. We encourage students to apply for grants (https://arc.losrios.edu/grants) and scholarships (https://arc.losrios.edu/scholarships) before taking out a student loan. If you have to take out a loan, then we encourage you to learn more about federal direct loans (https://arc.losrios.edu/federal-direct-loans) before considering a private loan. A loan is a serious and long-term obligation.

Private loans are determined based on credit. They accrue interest and typically have higher interest rates than federal direct loans. Private loans also do not generally offer the same repayment protections that federal direct loans do.

Students may establish a private loan through any banking institution of their choice. Disbursements are typically made via check.

Code of Conduct for Private Loans

American River College is prohibited from engaging in any business arrangement that is a conflict of interest between the college and private lenders in accordance with the Truth in Lending Act (15 U.S.C 1638(e)). American River College does not:

- Receive any revenue sharing with any lender
- Receive gifts from lenders, guarantors, or loan services
- Have contracting arrangements providing financial benefit from any lender or affiliate of a lender
- Direct prospective student borrowers to a particular lender
- Maintain a preferred lender list
- Delay or refuse loan certifications based upon choice of private lender
- Offer funds for private loans
- Receive any compensation for members of the college that may belong to the advisory board of any lender

College and Academic Regulations

Academic Freedom

The following is the **Statement of Principles on Academic Freedom** (American Association of University Professors):

- The purpose of this statement is to promote public understanding and support of academic freedom and tenure and agreement upon procedures to ensure them in colleges and universities. Institutions of higher education are conducted for the common good and not to further the interest of either the individual teacher or the institution as a whole. The common good depends upon the free search for truth and its free exposition.
- Academic freedom is essential to these purposes and applies to both teaching and research. Freedom in research is fundamental to the advancement of truth. Academic freedom in its teaching aspect is fundamental for the protection of the rights of the teacher in teaching and the freedom of the student in learning. It carries with it duties correlative with rights.
- Teachers are entitled to freedom in the classroom in discussing their subject, but they should be careful not to introduce into their teaching controversial matter, which has no relation to their subject.
- College and university teachers are citizens, members of a learned profession, and officers of an educational institution. When they speak or write as citizens, they should be free from institutional censorship or discipline, but their special position in the community imposes special obligations. As scholars and educational officers, they should remember that the public may judge their profession and their institution by their utterances. Hence they should at all times be accurate, should exercise appropriate restraint, should show respect for the opinions of others, and should make every effort to indicate that they are not speaking for the institution.

Academic Honors

The distinction of honors and highest honors is noted on a student's transcript for each semester in which a student has enrolled in twelve (12) units or more and has earned a grade point average (GPA) of at least 3.0 (honors) or 3.5 or higher (highest honors). Students earning highest honors will be notified by email of their eligibility to join the honor society, Phi Theta Kappa. Students earning honors or highest honors may be eligible to participate in the Honors Program.

Honors at Graduation

Students who maintain a high grade point average are eligible for honors at graduation. Students who maintain a grade point average of 3.0 or better are eligible for graduation with honors, and students who maintain a grade point average of 3.5 or better are eligible for graduation with highest honors. All undergraduate level coursework that a student has completed is used to calculate honors at graduation (including coursework taken outside of Los Rios). For ADT degrees, only transfer-level, undergraduate coursework is used.

The published lists of students are compiled from the data available at the time of publication and may be subject to subsequent revision.

Academic Renewal Without Course Repetition

A student may petition to have previous sub-standard grades (a "D," "F," or "NP") earned at American River College discounted. Courses and grades that no longer reflect a student's current educational objective and current level of academic success may, upon petition, be discounted in the computation of the grade point average (Title 5, section 55046). The following conditions must apply:

1. A minimum of twelve (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" or "Pass/Credit" or better shall have been attained. The coursework must have been completed at a regionally accredited college.
2. No more than thirty (30) units of substandard grades may be discounted by academic renewal districtwide.
3. Under no circumstances may coursework be discounted if it was used to fulfill requirements for a degree or certificate that has been awarded.
4. All grades remain on the permanent record and transcript of grades. However, a proper notation on the transcript will indicate the specific grades that were discounted from the grade point average.
5. The discounting resulting from academic renewal is permanent. If approved, courses and grades will remain visible on the transcript but will not be calculated in the GPA.
6. Academic renewal is not intended for courses that are required and/or will be repeated.
7. Nontransferable courses in math, English, or English as a second language (ESL) sequences that cannot be repeated because they are no longer offered may be academically renewed, waiving requirements "A" and "B" above, upon successful completion of a transfer-level course in the same sequence.

Attendance

For students to successfully complete their college work, regular class attendance is necessary, and students are expected to attend all sessions of classes in which they are enrolled. See Los Rios Regulation R-2222 (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/shared/doc/board/regulations/R-2222.pdf).

All students who remain enrolled in a class after the last day to withdraw (see the academic calendar (https://arc.losrios.edu/academic-calendar)) will be issued a letter grade for the course. If a student has stopped attending but not dropped the class, the student may receive an F grade for the course on their permanent record. Exception to this policy involves completion of the Student Petition, with appropriate signatures and documentation of extenuating circumstances.

Excessive Absences

Students are expected to attend all sessions of the class in which they are enrolled. Any student with excessive absences may be dropped from class (Title 5, Section 58004).

Per Los Rios Regulation R-2222, a student may be dropped from any class when that student's absences exceed six percent (6%) of the total hours of class time. Instructors shall state in each course syllabus what constitutes excessive absences for that course.

Non-Attendance at First Class

Per Los Rios Regulation R-2222 (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/shared/doc/board/regulations/R-2222.pdf), students who fail to attend the first session of a class may be dropped by the instructor.

Auditing Courses

American River College does not permit auditing of classes. Auditing is defined as attending a course without having enrolled in the course, without responsibility for completing assignments, and without receiving a grade or credit.

Catalog Rights

For the purpose of graduating or earning a certificate from any college in the Los Rios Community College District, a student who attends at least one session (whether quarter, semester, or summer) in each calendar year at any California community college, California State University, University of California, or any regionally accredited institution of higher education, may choose to meet the requirements in effect at the Los Rios college from which the student intends to graduate, as follows:

- Requirements that were in effect at the time the student was admitted to a Los Rios college
- Requirements that were in effect at the time the student originally enrolled in an accredited college
- Requirements that were in effect at the intended date of graduation from a Los Rios college

Please note:

- Students with catalog rights prior to Fall 2025 can continue to follow the old local AA/AS GE pattern. Use the new local AA/AS GE requirements (https://arc.losrios.edu/catalog/local-ge) along with the new to old AA/AS GE mapping table (https://arc.losrios.edu/student-resources/counseling/cal-getc-and-general-education-guidance/mapping-new-to-old-local-general-education-requirements) to complete your general education requirements.
- A college may authorize or request substitution for discontinued courses.
- Students who change their major field of study may be required to complete those requirements for the major in effect at the point of change.
- For purposes of this section, "attendance" means taking classes in at least one session (semester or summer session) in each calendar year. Absence for attendance at another regionally accredited institution shall not be considered an interruption in attendance, per Los Rios Policy P-7242 (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/shared/doc/policies/board/P-7242.pdf).

Change of Address and/or Name

Requests to have a student's name changed are submitted directly to the Admissions & Records office. In order for this type of request to be processed, documentation (such as a marriage license, court documents, or naturalization papers) is required to verify a legal name change.

Students should report a change of address immediately. Changes can be submitted online in eServices (https://ps.losrios.edu/student/signon.html) or by submitting a Change of Data form to the Admissions & Records office. American River College is not responsible for misdirected mail if the address change is not provided by the student.

Students can submit birth date and social security number corrections to the Admissions & Records office along with proper documentation (official birth certificates or social security verification).

Course Repetition and Repeatability

Repetition of courses must be conducted by all California community colleges in compliance with Title 5, sections 55029 and 55040 through 55046.

Course Repetition Where Substandard Grade is Recorded

Where a student has received a substandard grade in a course taken at a college, the student may repeat that course up to a maximum of two (2) times in an effort to alleviate the substandard academic grade. A substandard grade is defined as a notation of "D," "F," "NC" (No Credit), or "NP" (No Pass). This regulation is effective across all Los Rios colleges.

The grade and credits earned in the final enrollment shall be used exclusively in determining the grade points earned for that particular course (Cal. Code Regs., Title 5, section 55042).

Repeatable Courses

Courses taken where a grade of "C" or better was earned 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:

- Courses for which repetition is necessary to meet the major requirements of CSU or UC for completion of a bachelor's degree
- Intercollegiate athletics and their related conditioning courses may be repeated to meet requirements for California Community College Athletic Association (CCCAA) eligibility.
- Intercollegiate academic or vocational competition courses with the primary purpose of preparing students for competition
- Variable unit courses that are open entry/exit, such as math, reading, and writing laboratory courses. Students may re-enroll in these courses as many times as necessary to complete, one time, the entire curriculum of the course.
- Work Experience courses, which can be repeated when there is new or expanded learning on the job for a maximum of six (6) to sixteen (16) units.

Exceptions to Course Repetition Requirements

Unless a specific exception applies, a student who has received a satisfactory grade shall not repeat the course. Satisfactory grade is defined as "A," "B," "C," "P" (Pass), or "CR" (Credit). There are special circumstances that allow for repetition. However, the student must submit a petition requesting the course repetition. Special circumstances include:

- Students may repeat a course where that course is required by a statute or regulation as a condition of continued paid or volunteer employment, or as a result of a significant change in industry or licensure standards such that repetition is necessary for employment or licensure. These repetitions are not limited and are granted based on the college's verification of established legal mandates (Cal. Code Regs., Title 5, section 55040). When repetition is allowed under this provision, credit will be awarded for the repeated course, and credit will be retained for the previous attempt(s).
- Students may repeat a course if there has been a significant lapse of time (more than three years) since the first grade was obtained, and:
    - If the college has a properly established recency prerequisite for a course or program (Cal. Code Regs., Title 5, section 55043) that the student shall not be able to satisfy without repeating the course in question.
    - If the college finds that another institution of higher education to which the student seeks to transfer has established a recency requirement that the student shall not be able to satisfy without repeating the course in question (Cal. Code Regs., Title 5, section 55043).
    - When repetition is allowed under this provision, the credit and grade recorded for the repeated course will be discounted, and the units and grade from the prior attempt(s) will be retained.

- 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 accident, illness, or other circumstances beyond the student's control. This is a one-time exception and may permit a fourth attempt. When repetition is allowed under this provision, credit will be awarded for the repeated course, and the units and grades from the prior attempt will be discounted.
- An educational assistance course, such as adaptive physical education, may be repeated any number of times by petition when the continuing success of the student in other courses is dependent on additional repetitions; when additional repetitions of the course are essential to completing a student's preparation for enrollment into other courses; or when the student has an Academic Accommodation Plan which involves a goal other than completion of the educational assistance class in question and repetition of the course will further achievement of that goal. (Cal. Code Regs., Title 5, section 55029) When repetition is allowed under this provision, credit will be awarded for the repeated course, and credit will be retained for the previous attempt(s). For more information on this type of course repetition, consult with a DSPS Counselor.

Course Families and Limitations on Active Participatory Courses

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

Students are limited to taking a maximum of four courses in any one family across all four Los Rios colleges, regardless of how many courses there are. Sometimes a family of courses may include more than four. For example, the Modern Dance Technique family of courses across the four Los Rios colleges includes five courses – DANCE 330 through DANCE 334 (Modern Dance I, II, III, IV, and V). A student may not petition to exceed the number of attempts within a course family.

In addition, if a student gets a substandard grade [a notation of "D," "F," "NC" (No Credit), "NP" (No Pass), or "W" (Withdrawal)] in any course within a family, the substandard grade counts as one of the four course limitations in the family. The list of families of courses (https://arc.losrios.edu/course-families) is available online and in the Counseling office. Consult with a counselor for more information.

External Attempts and Duplicative Credit

For the purpose of course repetition, attempts at regionally accredited colleges and universities outside the Los Rios Community College District shall not be included in calculating the number of attempts in a course. If external credit is determined to be equivalent to courses attempted with substandard grades in Los Rios, the most recent prior attempt within Los Rios may be discounted as permissible in course repetition policies. If accepting external credit results in duplicative non-repeatable credit appearing on the student record (transcript), such credit shall not be applied to meet general education, degree, or major requirements.

Course Time Conflict/Course Overlap

Students may not enroll in two classes that meet during part of the same hour, except through a petition process. The student must state their justification for enrolling in the overlapping class, and instructors must indicate how the missed time will be made up (Title 5, Section 58031).

Good Standing

In determining a student's eligibility to acquire or remain in good standing at American River College, both quality of performance and progress toward completion of objectives are considered. A student who completes 12 or more semester units, earns a 2.0 GPA on a 4.0 grading scale, and completes more than 50 percent of all enrolled units, merits good standing with the college. Students in good standing are limited to 18 units per semester. In exceptional cases, a student may initiate a petition with a counselor to exceed the 18-unit limit.

Grades and Grade Point Averages (GPA)

Types of Grades

Letter Grade	Explanation	Grade Points Per Unit
A	Excellent	Four (4) grade points per unit
B	Good	Three (3) grade points per unit
C	Satisfactory	Two (2) grade points per unit
D	Passing (not satisfactory)	One (1) grade point per unit
F	Failing	Zero (0) grade points per unit
P	Pass (C or better)	Not computed in GPA
NP	No Pass (less than C)	Not computed in GPA; affects progress notice and pause
I	Incomplete	Not computed in GPA; affects progress notice and pause
W	Withdrawal	Not computed in GPA; affects progress notice and pause
EW	Excused Withdrawal	Not computed in GPA; does not affect progress notice and pause; does not count as one of your three attempts

Grade Point Average

The grade point average is found by taking the (total grade points earned) divided by the (total units attempted with a letter grade).

Progress Percentage

The progress percentage is found by taking the (total units with "W," "I," and "NC") divided by the (total units enrolled).

Pass/No Pass Grading

A student may elect to have graded courses that allow "Pass/No Pass (P/NP)" evaluation to be assessed as "Pass/No Pass." A petition must be filed with the admissions office before the deadline published in the academic calendar. An "A", "B," or "C" grade will be recorded as "P" with Grade Points Per Unit. A "D" or "F" grade will be recorded as "NP" with No Grade Points Per Unit. Units attempted for P/NP grades are not computed in the grade point average but are used for determining progress notice and pause. Once you have filed for P/NP grading in a course, it cannot be changed to a letter grade.

Incomplete Grading

An instructor may assign an incomplete grade, "I", when the instructor believes the student cannot complete the requirements of the class before the end of the semester due to unforeseeable emergency and justified reasons. To receive credit for the class, the student must finish the incomplete work within one year after the end of the semester. After the work is completed and evaluated, or when the time has expired, a final grade will be assigned. A student receiving an incomplete may not reenroll in the class.

In Progress

If you receive an "in-progress" grade, you must re-enroll in the class in the next semester. If you don't re-enroll, a grade will be assigned instead of "in progress."

Withdrawal from Class

A student may officially drop a class without notation on the permanent academic record/transcript before the point at which 15% of a class has occurred (see the academic calendar (https://arc.losrios.edu/admissions/academic-calendar) for withdrawal deadlines). Withdrawals occurring after this time, and before the point at 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 in the Admissions and Records office.

A "W" notation on the permanent academic record/transcript is used for determining progress notice and progress pause. No withdrawals are permitted after the "W" notation deadline, except due to extenuating circumstances (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 grade may be recorded as an excused withdrawal ("EW") rather than as a less-than-satisfactory or failing grade on the permanent academic record/transcript. The college may present the student with options to attempt to mitigate extenuating circumstances presented in a petition for an excused withdrawal and allow the student to remain enrolled; students may indicate they are willing to consider these options on the petition.

Excused withdrawal shall not be counted in progress notice and pause calculation. Excused withdrawal shall not be counted toward the permitted number of withdrawals or counted as an enrollment attempt.

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. Students requesting military withdrawal must file a student petition and include supporting documentation.

Remedial Unit Limitation

The California Community Colleges Board of Governors has adopted regulations limiting the number of remedial course units a student may take to 30. These courses are usually numbered 1 through 99. Students may petition for a waiver to the 30-unit limitation through a counselor. However, federal financial aid does not allow a student to receive aid for more than 30 remedial units.

Transcripts

Order Transcripts Online

Current and former students can order transcripts and authorize the release of student records online. Students must submit a separate order for each Los Rios college they attended.

Order Transcripts Online (https://arc.losrios.edu/order-transcripts)

Unit/Academic Load

Per Los Rios Regulation R-7211: Maximum and Recommended Academic Load (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/shared/doc/board/regulations/R-7211.pdf), 15 units each semester is considered a full load. 12 units each semester is a minimum full-time load and is usually acceptable to qualify for scholarships, grants, loans, and holding student offices.

Fall/Spring Semester

18 units per semester is a maximum load. The unit limit is district-wide. A petition to exceed the maximum load must be submitted in writing to the college at which the additional units will be taken prior to registration. A student may petition up to a maximum of six (6) additional units (for a total of 24 units) district-wide through this process.

Summer Session

Eight (8) units per summer session is a maximum load. The unit limit is district-wide. A petition to exceed the maximum load must be submitted in writing to the college at which the additional units will be taken prior to registration. A student may petition up to a maximum of four (4) additional units (for a total of 12 units) district-wide through this process.

Special Considerations

Full governmental subsistence for veterans and dependents requires the unit load of twelve (12) units (with reduced benefit amounts dependent on the total number of enrolled units).

The following categories require the minimum unit load indicated:

- International students – twelve (12) units
- Student-athletes – twelve (12) units, including kinesiology/physical education

Unit of Credit

Units of credit are assigned to courses based on the "Carnegie Unit," which assigns one unit of credit for three hours of work by the student per week. Usually this means one hour of lecture or discussion led by the instructor and two hours of outside preparation by the student. In laboratory courses, three hours of work in the laboratory are normally assigned one unit of credit which may include some additional preparation outside of class time. Students can find the number of units of credit with each course description.

Academic and Progress Notice and Pause

American River College uses **Academic Notice, Progress Notice, Academic Pause,** and **Progress Pause** to identify students who are struggling and offer them support.

We will notify you if you are in one of these standings, or you can view your academic standing on your unofficial transcript after grades are posted each semester. Log in to eServices (https://ps.losrios.edu/student/signon.html), then click *Academic Records* to find your unofficial transcript. If you are in notice or pause status, then you may need to meet certain requirements to remain enrolled in classes.

Definitions

Academic Notice and Academic Pause (AN1, AN2, AP)

Students who have attempted at least 12 semester units, and whose cumulative GPA is below 2.0, will be placed on **Academic Notice 1 (AN1)**.

After the second consecutive semester of a cumulative GPA below 2.0, student will be placed on **Academic Notice 2 (AN2)**.

After the third consecutive semester, students are placed on **Academic Pause (AP)**.

When the overall GPA improves to 2.0 or higher, the student returns to **Good Standing**.

Progress Notice and Progress Pause (PN1, PN2, PP)

Students who have attempted at least 12 semester units are placed on **Progress Notice 1 (PN1)** when W, I, and NP grades are recorded in one half or more of all units in which a student has enrolled.

After the second consecutive semester, students fall into **Progress Notice 2 (PN2)**.

After the third consecutive semester, students are placed on **Progress Pause (PP)**.

When the overall ARC transcript has less than one half of W, I, or NP grades, the student returns to **Good Standing**.

Potential Consequences

Students who are placed on **Academic Notice 2, Progress Notice 2,** or **Pause:**

- Will lose priority registration as a continuing student and will only be able to register for classes during open enrollment (which is later than priority 1 and 2)
- May lose their California College Promise Grant (https://arc.losrios.edu/admissions/financial-aid-and-fees/types-of-financial-aid/grants) eligibility

Students who have a term GPA of 2.0 and have completed more than half the attempted units for the term may appeal their loss of priority registration or the California College Promise Grant.

How to Address a Notice or Pause Hold

Students on Academic or Progress Notice 1

American River College does not currently place holds on students on Notice 1 but we are here to help you be successful. Consider the following options to get help:

- Meet with a counselor (https://arc.losrios.edu/student-resources/counseling/make-a-counseling-appointment).
- Get academic support through the Science Success Center (https://arc.losrios.edu/student-resources/campus-tutoring-programs/science-success-center), STEM Center (https://arc.losrios.edu/student-resources/mathematics-engineering-science-achievement), Tutoring Center (https://arc.losrios.edu/student-resources/campus-tutoring-programs), or Homebases (https://arc.losrios.edu/homebases).
- Check out our range of student support programs (https://arc.losrios.edu/support-services).

Students on Notice 1 must achieve a 2.0 GPA or better and complete at least half of their attempted units, or they will be placed on Notice 2.

Students on Academic or Progress Notice 2

American River College does not currently place holds on students on Notice 1 but we are here to help you be successful. Consider the following options to get help:

- Meet with a counselor (https://arc.losrios.edu/student-resources/counseling/make-a-counseling-appointment).
- Get academic support through the Science Success Center (https://arc.losrios.edu/student-resources/campus-tutoring-programs/science-success-center), STEM Center (https://arc.losrios.edu/student-resources/mathematics-engineering-science-achievement), Tutoring Center (https://arc.losrios.edu/student-resources/campus-tutoring-programs), or Homebases (https://arc.losrios.edu/homebases).
- Check out our range of student support programs (https://arc.losrios.edu/support-services).

Students on Notice 2 must achieve a 2.0 GPA or better and complete at least half of their attempted units, or they will be placed on Pause.

Students on Academic or Progress Pause

To be readmitted after a paused status, students must take the following steps:

1. Complete a Back on Track workshop in Canvas.
2. After you complete the workshop, you can submit a Statement of Circumstances and request a Back on Track planning appointment in Canvas. If you do not have a Canvas tile but you do have an eServices hold, then the Back on Track team will add the tile to your Canvas account.
3. Meet with a counselor to complete a Back on Track Plan to request readmission to ARC. The deadline to complete your Back on Track Plan is ten (10) business days before the semester begins.
4. If your plan is approved, then you will have a unit limit and you must maintain a 2.0 and a 50% completion rate **each semester** until your cumulative GPA is above a 2.0 and you are out of pause status.

Resources For Students at Risk of Notice or Pause

Are you at risk of notice or pause? ARC has programs in place to support you and help get you back on track. Learn about the Back on Track Program (https://arc.losrios.edu/student-resources/counseling/notice-pause-and-readmission/back-on-track-program).

Enrollment Verification

Students can download or request enrollment verification for child care, health insurance, and car insurance online using the following steps.

Automated Verification via eServices

You can download or print an enrollment verification certificate for free online through eServices (https://ps.losrios.edu/student/signon.html).

1. Log in to eServices (https://ps.losrios.edu/student/signon.html).
2. Click on *Academic Records*.
3. Click on *Enrollment Verification*.

Custom Verification Request

If your request cannot be accommodated through the automated system, you may request a custom verification online via eServices using the steps below. Custom verifications have a turnaround time of three to five business days.

1. Log in to eServices (https://ps.losrios.edu/student/signon.html).
2. Click on *Student eForms and Petitions*.
3. Click on *Admission and Records*.
4. Click on *Enrollment Verification*.

Third-Party Requests

The National Student Clearinghouse acts as American River College's agent for verification of student enrollment and degree status. You can obtain an official enrollment verification online at National Student Clearinghouse (https://studentclearinghouse.org/) or by calling (703) 742-4200.

Credit for Prior Learning and Alternative Study Options

In addition to regular classes, students may receive college credit for prior learning and alternative study options.

Credit for Prior Learning

Advanced Placement (AP) Exams

American River College grants credit for College Board Advanced Placement (AP) examinations. A student who meets the following requirements may receive credit for exams they successfully passed:

- Official copies of test scores are on file with Admissions and Records
- Student is in good standing, which is defined as having a minimum 2.0 grade point average (GPA)
- The student must have previously earned credit from Los Rios Community College District or be currently registered as a student

Students should be aware that other colleges and universities have the right to accept, modify, or reject the use of AP scores towards their graduation requirements. Check with your counselor to determine whether these test results will be accepted at the transfer institution of your choice.

Review the AP Credit Chart (https://arc.losrios.edu/ap-scores-chart) to see how American River College grants credit for AP exams.

Visit College Board's Advanced Placement Program website (https://ap.collegeboard.org) to learn more.

College-Level Examination Program (CLEP)

American River College grants credit for College-Level Examination Program (CLEP) examinations. CLEP scores fulfill general education areas only; they **do not** fulfill graduation competencies, requirements for any major at American River College, or enrollment limitations (such as prerequisite requirements) for any course at American River College.

A student may receive credit for CLEP exams they have successfully passed once the following requirements are met:

- Official copies of test scores are on file with Admissions and Records
- Student is in good standing, which is defined as having a minimum 2.0 grade point average (GPA)

- The student must have previously earned credit from Los Rios Community College District or be currently registered as a student

Visit College Board's College-Level Examination Program website (https://clep.collegeboard.org) to learn more.

CLEP scores are **not** accepted for transfer to the University of California. Students should be aware that other colleges and universities have the right to accept, modify, or reject the use of CLEP scores towards their graduation requirements. Check with your counselor to determine whether these test results will be accepted at the transfer institution of your choice.

Review the CLEP Credit Chart (https://arc.losrios.edu/clep-scores-chart) to see how American River College grants credit for CLEP exams.

International Baccalaureate (IB) Tests

American River College may award college credit for international baccalaureate (IB) higher-level course completion, if the coursework is compatible with the college's curriculum. No credit will be granted for lower-level coursework completed in the IB program.

A student who meets the following requirements may receive credit for IB tests they successfully passed:

- Official copies of test scores are on file with Admissions and Records
- Student is in good standing, which is defined as having a minimum 2.0 grade point average (GPA)
- The student must have previously earned credit from Los Rios Community College District or be currently registered as a student

Review the IB Credit Chart (https://arc.losrios.edu/ib-scores-chart) to see how American River College grants credit for IB tests.

Students should be aware that other colleges and universities have the right to accept, modify, or reject the use of IB scores towards their graduation requirements. Check with your counselor to determine whether these test results will be accepted at the transfer institution of your choice.

Students who have earned credit from an IB test should not take a comparable college course because transfer credit will not be granted for both.

Visit the International Baccalaureate (IB) website (https://www.ibo.org/programmes/diploma-programme/assessment-and-exams/requesting-transcripts/) to learn more.

Credit by Examination

Under special circumstances and with department approval, students who are regularly enrolled and in good standing who believe they are qualified by experience or previous training may take a special examination to establish credit in a course in which they are not formally enrolled. The California College Promise and Los Rios Promise program tuition fee waivers do not cover fees for the credit by examination process. Students are required to pay the current tuition fee per unit. The determination to offer credit by examination is at the discretion of the discipline faculty.

A student who wishes to petition for credit by examination must:

- Be currently enrolled and in good standing at American River College
- Have an education plan on file
- Request a course that is listed in the current college catalog
- Not have previously received credit for a particular course

Successful completion of a course by the credit by examination process is recorded on the permanent transcript as a letter grade (A, B, or C) or as a Pass (P) grade. The P grade does not enter into the computation of the student's GPA. Non-passing grades are not recorded on the academic transcript.

Limitations

Units earned through credit by examination may not be used to satisfy the 12-unit residency requirement for graduation. Credit by examination does not apply to all courses, and in some instances, the process may require measures of evaluation.

Some four-year colleges and universities do not accept units granted through credit by examination. Students are encouraged to consult with a counselor to discuss credit by examination to determine how it may affect their educational objective.

For more information, contact the area dean.

Credit for Military Education and Training

Military personnel and veterans may receive course credit for prior military education and training.

See Credit for Military Experience (https://arc.losrios.edu/military-credit) for more information.

Alternative Study Options

Distance/Online Education

American River College offers instruction via the internet. This includes online course sections where all work is carried out online, and partially online course sections where instruction is divided between online and in-person modalities.

To be successful in online courses, students need to be self-directed, motivated, and able to independently complete and electronically submit assignments on schedule. Students will also need reliable access to a computer and basic internet skills.

Online Classes

In online classes, classes meet online and all coursework is done online. Class schedules will indicate whether an online class is asynchronous (meaning there are no scheduled meeting times) or synchronous (meaning there are regularly scheduled meetings through teleconference).

Partially Online or "Hybrid" Classes

Partially online classes feature a mix of online and in-person meetings and coursework. Class schedules will indicate the day/time of the in-person, on-campus class sessions.

Online Learning Platform

All online classes are offered through Canvas (https://lrccd.instructure.com/), a cloud-based learning management system used by faculty and students within Los Rios Community College District.

Learn more about online education at American River College (https://arc.losrios.edu/academics/online-education).

Independent Study

An independent study course involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses, pursuant to an agreement among the college, faculty member, and student(s). Independent studies require regular meetings between the student and instructor. Additionally, the instructor may require examinations or other measures of evaluation, field trips, term papers, and other assignments.

Please note that some four-year colleges and universities do not accept units granted through independent study. Students are encouraged to meet with a counselor for more information.

For the appropriate petition and course proposal form, please contact Admissions and Records (https://arc.losrios.edu/admissions-records).

Credit for Military Service

Veterans may receive college credit for military service.

See Credit for Military Experience (https://arc.losrios.edu/military-credit) for more information.

Study Abroad

Study abroad can be an enlightening, maturing, and life-changing experience. Students are challenged to re-examine themselves, their attitudes, and their studies as they learn to understand new and different cultures. In cooperation with the American Institute for Foreign Study, Los Rios Community College District offers unique study opportunities in cities such as:

- London, England
- Barcelona, Spain
- Florence, Italy

Requirements for Study Abroad

To study abroad, students must:

- Be at least 18 years old
- Be in good academic standing with 12 college units completed by the time you go abroad
- Have a minimum overall grade point average (GPA) of 2.25

During the 13-week Study Abroad program, all students take 12 units – a three-unit Life and Culture class, an additional Los Rios class, and two other classes from the list of offerings.

Financial Aid for Study Abroad

Financial Aid is available for study abroad.

Upcoming Study Abroad Opportunities

Learn more about current and upcoming study abroad opportunities (https://arc.losrios.edu/study-abroad).

Work Experience and Internship Program

Work experience is an academic program in which students apply what they have learned in the classroom to a job or internship and work to earn college credits. There are two types of programs: vocational and general.

For more information, please visit the Work Experience and Internship Program (https://arc.losrios.edu/wexp).

Advanced Placement Test Scores

Students may earn credit for College Entrance Board Advanced Placement (AP) tests with scores of 3, 4, or 5. AP scores can be used to meet American River College Local AA/AS General Education requirements or California General Education Transfer Curriculum (Cal-GETC) requirements.

A student may receive credit for AP exams they have successfully passed once the following requirements are met:

- Official copies of test scores are on file with Admissions and Records
- Student is in good standing, which is defined as having a minimum 2.0 grade point average (GPA)
- The student must have previously earned credit from Los Rios Community College District or be currently registered as a student

Students should be aware that other colleges and universities can accept, modify, or reject using AP scores towards their graduation requirements. Check with your counselor to determine whether these test results will be accepted at the transfer institution of your choice.

American River College General Education AP Credit

The use of AP exam scores for American River College course credit and general education is determined by American River College policy.

AP Exam	Exam Score	ARC Course Credit	Satisfies ARC GE Area	Units Earned at ARC
2-D Art and Design	3, 4, 5	N/A	N/A	3
3-D Art and Design	3, 4, 5	N/A	N/A	3
African American Studies	3, 4, 5	N/A	N/A	3
Art History	3, 4, 5	ARTH 300	L3: Arts and Humanities	3
Biology	3	BIOL 300	L5: Natural Sciences	3
Biology	4, 5	BIOL 310	L5: Natural Sciences	4
Calculus AB	3, 4, 5	MATH 400	L2: Mathematical Concepts and Quantitative Reasoning	5
Calculus BC	3, 4, 5	MATH 400 and MATH 401	L2: Mathematical Concepts and Quantitative Reasoning	10
Calculus BC/AB Subscore	3, 4, 5	N/A	L2: Mathematical Concepts and Quantitative Reasoning	3
Chemistry (taken Fall 2009 or later)	3, 4	CHEM 305	L5: Natural Sciences	5
Chemistry (taken Fall 2009 or later)	5	CHEM 400	L5: Natural Sciences	5
Chinese Language and Culture	3, 4, 5	N/A	L3: Arts and Humanities	8
Comparative Government and Politics	3, 4, 5	N/A	L4: Social and Behavioral Sciences	3
Computer Science A	3	N/A	N/A	3
Computer Science A	4, 5	CISP 300	N/A	3
Computer Science AB	3, 4, 5	N/A	N/A	3
Computer Science Principles	3, 4, 5	CISC 310	N/A	3
Cybersecurity	3, 4, 5	CISS 300 and CISS 310	N/A	4
Drawing	3, 4, 5	ART 300	L3: Arts and Humanities	3
English Language and Composition	3, 4, 5	ENGL C1000 (formerly ENGWR 300)	L1A: English Composition	3

AP Exam	Exam Score	ARC Course Credit	Satisfies ARC GE Area	Units Earned at ARC
English Literature and Composition	3, 4, 5	ENGL C1000 (formerly ENGWR 300)	L1A: English Composition **and** L3: Arts and Humanities	6
Environmental Science	3, 4, 5	NATR 300	L5: Natural Sciences	4
European History	3, 4, 5	HIST 302	L3: Arts and Humanities **or** L4: Social and Behavioral Sciences	3
French Language and Culture	3, 4, 5	N/A	L3: Arts and Humanities	8
German Language and Culture	3, 4, 5	GERM 401 and GERM 402	L3: Arts and Humanities	8
Human Geography	3, 4, 5	GEOG 310	L4: Social and Behavioral Sciences	3
Italian Language and Culture	3, 4, 5	ITAL 401 and ITAL 402	L3: Arts and Humanities	8
Japanese Language and Culture	3, 4, 5	N/A	L3: Arts and Humanities	8
Latin	3, 4, 5	N/A	L3: Arts and Humanities	3
Macroeconomics	3, 4, 5	ECON C2002 (formerly ECON 302)	L4: Social and Behavioral Sciences	3
Microeconomics	3, 4, 5	ECON C2001 (formerly ECON 304)	L4: Social and Behavioral Sciences	3
Music Theory	3	N/A	L3: Arts and Humanities	3
Music Theory	4, 5	MUFHL 400	L3: Arts and Humanities	4
Physics 1: Algebra-Based	3, 4, 5	N/A	L5: Natural Sciences	4
Physics 2: Algebra-Based	3, 4, 5	N/A	L5: Natural Sciences	4
Physics 1: Algebra-Based, and Physics 2: Algebra-Based	4, 5	PHYS 350 and PHYS 360	L5: Natural Sciences	8
Physics C: Electricity and Magnetism	3, 4, 5	N/A	L5: Natural Sciences	4
Physics C: Mechanics	3, 4, 5	N/A	L5: Natural Sciences	4
Precalculus	3, 4, 5	N/A	L2: Mathematical Concepts and Quantitative Reasoning	3
Psychology	3, 4, 5	PSYC C1000 (formerly PSYC 300)	L4: Social and Behavioral Sciences	3
Seminar	3, 4, 5	N/A	N/A	3
Spanish Language and Culture	3, 4, 5	SPAN 401 and SPAN 402	L3: Arts and Humanities	8
Spanish Literature and Culture	3, 4, 5	N/A	L3: Arts and Humanities	3
Statistics	3, 4, 5	STAT C1000 (formerly STAT 300)	L2: Mathematical Concepts and Quantitative Reasoning	4
US Government and Politics	3, 4, 5	N/A	L4: Social and Behavioral Sciences	3
US History	3, 4, 5	HIST C1001 (formerly HIST 310) and HIST C1002 (formerly HIST 311)	L3: Arts and Humanities **or** L4: Social and Behavioral Sciences **or** Va: American Institutions (before Fall 2025)	6

AP Exam	Exam Score	ARC Course Credit	Satisfies ARC GE Area	Units Earned at ARC
World History (taken before Fall 2019)	3, 4, 5	HIST 307 and HIST 308	L3: Arts and Humanities **or** L4: Social and Behavioral Sciences	6
World History – Modern	3, 4, 5	HIST 308	L3: Arts and Humanities **or** L4: Social and Behavioral Sciences	3

Cal-GETC AP Credit

Visit Cal-GETC Credit by External Exams (Section 6.1) (https://icas-ca.org/cal-getc-standards/#61-advanced-placement-ap) to find information on how credit is granted for general education using the Cal-GETC pattern. Note that each CSU and UC campus individually determines how it will apply external examination credit in the major. For more information about AP credit, consult a counselor.

CSU AP Credit

Visit CSU's AP Credit Page (https://www.calstate.edu/apply/transfer/Pages/External-Exam-Credit.aspx) for information on how credit is granted for admission and general education. Note that each campus in the CSU system individually determines how it will apply external examination credit in the major. For more information about AP credit, consult a counselor.

UC AP Credit

Visit UC's AP Credit Page (https://admission.universityofcalifornia.edu/admission-requirements/ap-exam-credits/ap-credits/) for information on how credit is granted for admission and general education. Note that each campus in the UC system individually determines how it will apply external examination credit in the major. For more information about AP credit, consult a counselor.

College-Level Examination Program Scores

American River College grants credit for College Level Examination Program (CLEP) examinations. CLEP scores may be used to meet American River College Local AA/AS General Education requirements; they **do not** fulfill requirements for any major at American River College or enrollment limitations (such as prerequisite requirements) for any course at American River College.

A student may receive credit for CLEP exams they have successfully passed once the following requirements are met:

- Official copies of test scores are on file with Admissions and Records
- Student is in good standing, which is defined as having a minimum 2.0 grade point average (GPA)
- The student must have previously earned credit from Los Rios Community College District or be currently registered as a student

Visit College Board's College Level Examination Program (https://clep.collegeboard.org/) to learn more.

CLEP scores are **not** accepted for transfer to the University of California. Students should be aware that other colleges and universities can accept, modify, or reject using CLEP scores towards their graduation requirements. Check with your counselor to determine whether these test results will be accepted at the transfer institution of your choice.

American River College General Education CLEP Credit

The use of CLEP exam scores for American River College course credit and general education is determined by American River College policy.

CLEP Exam	CLEP Score	ARC Course Credit	ARC GE Area	Units Earned at ARC
American Government	50	N/A	L4: Social and Behavioral Sciences **or** Va: American Institutions (before Fall 2025)	3
American Literature	50	N/A	L3: Arts and Humanities	3
Analyzing and Interpreting Literature	50	N/A	L3: Arts and Humanities	3
Biology	50	N/A	L5: Natural Sciences	3
Calculus	50	MATH 400	L2: Mathematical Concepts and Quantitative Reasoning	5
Chemistry	50	N/A	L5: Natural Sciences	3
College Algebra	50	MATH 120	L2: Mathematical Concepts and Quantitative Reasoning	5
College Algebra – Trigonometry	50	N/A	L2: Mathematical Concepts and Quantitative Reasoning	3
French Level II	59	N/A	L3: Arts and Humanities	3
German Level II	60	N/A	L3: Arts and Humanities	3
History, United States I	50	N/A	L4: Social and Behavioral Sciences **or** Va: American Institutions (before Fall 2025)	3
History, United States II	50	N/A	L4: Social and Behavioral Sciences **or** Va: American Institutions (before Fall 2025)	3

CLEP Exam	CLEP Score	ARC Course Credit	ARC GE Area	Units Earned at ARC
Human Growth and Development	50	N/A	L4: Social and Behavioral Sciences **or** L7B. Life Development Skills	3
Humanities	50	N/A	L3: Arts and Humanities	3
Introductory Psychology	50	PSYC C1000 (formerly PSYC 300)	L4: Social and Behavioral Sciences	3
Introductory Sociology	50	N/A	L4: Social and Behavioral Sciences	3
Natural Sciences	50	N/A	L5: Natural Sciences	3
Pre-Calculus	50	N/A	L2: Mathematical Concepts and Quantitative Reasoning	3
Principles of Macroeconomics	50	N/A	L4: Social and Behavioral Sciences	3
Principles of Microeconomics	50	N/A	L4: Social and Behavioral Sciences	3
Spanish Level II	63	N/A	L3: Arts and Humanities	3
Spanish and Writing Level II	63	N/A	L3: Arts and Humanities	3
Western Civilization I	50	N/A	L3: Arts and Humanities **or** L4: Social and Behavioral Sciences	3
Western Civilization II	50	N/A	L3: Arts and Humanities **or** L4: Social and Behavioral Sciences	3

Exceptions

American River College does not offer credit for the following CLEP exams, and these exams do not satisfy associate degree general education requirements:

- College Composition
- College Composition – Modular
- College Mathematics
- English Composition (with essay)
- English Composition (without essay)
- Financial Accounting
- French Level I
- Freshman College Composition
- German Level I
- Information Systems and Computer Applications
- Introduction to Educational Psychology
- Introduction to Business Law
- Principles of Accounting
- Principles of Management
- Principles of Marketing
- Social Sciences and History
- Spanish Level I

- Spanish with Writing I

CSU CLEP Credit

Visit CSU's CLEP Page (https://www.calstate.edu/apply/transfer/Pages/External-Exam-Credit.aspx#InplviewHash6d53e609-96a0-4440-9e6f-dc217d795740=FilterField1%3DAcademicYear-FilterValue1%3D2025%252D2026) to find information on how credit is granted for admission and general education. Note that each campus in the CSU system individually determines how it will apply external examination credit in the major. For more information about CLEP credit, consult a counselor.

Cal-GETC and UC

CLEP may not be used for Cal-GETC credit and is not accepted in the UC system.

International Baccalaureate Test Scores

American River College may award college credit for international baccalaureate (IB) higher-level (HL) course completion, if the coursework is compatible with the college's curriculum. IB test scores may be used to meet American River College Local AA/AS General Education requirements or California General Education Transfer Curriculum (Cal-GETC) requirements. No credit will be granted for lower-level coursework completed in the IB program.

A student may receive credit for IB tests they have successfully passed once the following requirements are met:

- Official copies of test scores are on file with Admissions and Records
- Student is in good standing, which is defined as having a minimum 2.0 grade point average (GPA)
- The student must have previously earned credit from Los Rios Community College District or be currently registered as a student

Students should be aware that other colleges and universities can accept, modify, or reject using IB scores towards their graduation requirements. Check with your counselor to determine whether these test results will be accepted at the transfer institution of your choice.

Students who have earned credit from an IB exam should not take a comparable college course because transfer credit will not be granted for both.

American River College General Education IB Credit

The use of IB exam scores for American River College course credit and general education is determined by American River College policy.

IB Exam	Passing Score	ARC Course Credit	ARC GE Area	Units Earned at ARC
Biology HL	5	N/A	L5: Natural Sciences	3
Chemistry HL	5	CHEM 305	L5: Natural Sciences	5
Chemistry HL	6	CHEM 310	L5: Natural Sciences	5
Chemistry HL	7	CHEM 400	L5: Natural Sciences	5
Economics HL	5	ECON C2001 (formerly ECON 304) and ECON C2002 (formerly ECON 302)	L4: Social and Behavioral Sciences	6
Geography HL	5	N/A	L4: Social and Behavioral Sciences	3
History HL (any region)	5	N/A	L3: Arts and Humanities **or** L4: Social and Behavioral Sciences	3
Language A: Language and Literature HL (any language)	5	N/A	L3: Arts and Humanities	3
Language A: Literature HL (any language)	5	N/A	L3: Arts and Humanities	3
Language B HL (any language)	5	N/A	N/A	3
Mathematics HL	5	N/A	L2: Mathematical Concepts and Quantitative Reasoning	3
Mathematics: Analysis and Approaches HL	5	N/A	L2: Mathematical Concepts and Quantitative Reasoning	3
Mathematics: Applications and Interpretation HL	5	N/A	L2: Mathematical Concepts and Quantitative Reasoning	3
Physics HL	5	N/A	L5: Natural Sciences	3

IB Exam	Passing Score	ARC Course Credit	ARC GE Area	Units Earned at ARC
Psychology HL	5	PSYC C1000 (formerly PSYC 300)	L4: Social and Behavioral Sciences	3
Theatre HL	5	N/A	L3: Arts and Humanities	3

Cal-GETC IB Credit

Visit Cal-GETC Credit by External Exams (Section 6.2) (https://icas-ca.org/cal-getc-standards/#62-international-baccalaureate-ib) to find information on how credit is granted for general education using the Cal-GETC pattern. Note that each CSU and UC campus individually determines how it will apply external examination credit in the major. For more information about IB credit, consult a counselor.

CSU IB Credit

Visit CSU's IB Page (https://www.calstate.edu/apply/transfer/Pages/External-Exam-Credit.aspx) to find information on how credit is granted for admission and general education. Note that each campus in the CSU system individually determines how it will apply external examination credit in the major. For more information about IB credit, consult a counselor.

UC IB Credit

Visit UC's IB Page (https://admission.universityofcalifornia.edu/admission-requirements/ap-exam-credits/ib-credits.html) to find information on how credit is granted for admission and general education. Note that each campus in the UC system individually determines how it will apply external examination credit in the major. For more information about IB credit, consult a counselor.

Credit for Military Experience

Military Service Transcripts

Students must send an official military transcript to American River College before petitioning for course credit for prior military education, training, and service.

The **Joint Services Transcript (JST)** is an academically accepted document used to validate an Army, Coast Guard, Marines, or Navy service member's military experience and training with the corresponding college credit recommendations. See Request Official Joint Services Transcript (https://jst.doded.mil/official.html).

For **Air Force Transcripts** see Community College of the Air Force Transcripts (https://www.airuniversity.af.edu/Registrar/Transcript-Requests/).

Contact the Veterans Resource Center (https://arc.losrios.edu/veterans) for assistance.

How to Apply for Military Credit

Credit for Military Education and Training

Military personnel and veterans may receive course credit for prior military education and training.

How to Apply

Submit a completed *Petition for Credit for Military Education and Training or Service* (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/credit-for-prior-learning-and-alternative-study-options/shared/doc/admissions-records/forms/credit-for-military-education-training-or-service.pdf) and an official copy of your Joint Services Transcript to Admissions and Records for review. The college will consider the credit recommendations of the American Council for Education when determining the awarding of credit for courses with subject matter similar to that of the student's military education and training. You must be currently registered as a student and in good standing to receive credit.

Credit for Military Service

Veterans may receive credit for military service.

How to Apply

Submit a completed *Petition for Credit for Military Education and Training or Service* (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/credit-for-prior-learning-and-alternative-study-options/shared/doc/admissions-records/forms/credit-for-military-education-training-or-service.pdf) and a copy of your DD-214 to Admissions and Records for review. You may be eligible to receive four (4) units of living skills graduation requirements.

If you have already submitted your DD-214 to receive veteran benefits, then you are not required to submit a second copy to receive Military Service Credit.

College Safety and Security

At American River College, we are committed to maintaining a safe learning environment and supporting an ongoing comprehensive safety program. The Los Rios Police Department (LRPD) employs sworn police officers who are certified through California Peace Officers Standards and Training (POST) and are responsible for protecting life and property across the district.

LRPD has excellent working relationships with other law enforcement agencies and emergency service providers in our neighboring communities. These strong partnerships help support more effective responses in emergency situations.

Learn more about Los Rios Police Department (https://police.losrios.edu).

Crime Prevention

American River College actively supports crime prevention through a number of programs.

Emergency Automobile Assistance

Though they are not mechanics, Los Rios Police officers are equipped and trained to start cars with dead batteries or unlock non-electric car doors. Proper identification is required for the performance of these services.

Unlawful Weapons

California Penal Code Section 626.9 (h) prohibits the possession of a firearm on college grounds.

The California Penal Code Section also prohibits the possession of knives 626.10, switchblade 21510, pepper spray 22810 (e) and Tasers/Stun Gun 626.10.

Alcohol

Consumption of, or being under the influence of, alcohol while on campus is strictly prohibited. Violators are subject to suspension, expulsion, and/or criminal prosecution (per Los Rios Policy P-2443: Drug and Alcohol-Free Workplace and College Premises (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/college-safety-and-security/shared/doc/policies/board/P-2443.pdf)).

Emergency Telephones

Outdoor, emergency telephones have been installed at strategic locations throughout the campuses. These blue phones, when accessed, will automatically connect the caller to the Los Rios Police Department.

Emergency Alerts

In the event of an emergency or disaster, Los Rios will provide critical information to students and employees via an emergency alert system. Emergency alerts are issued via text, phone calls, and email. Update your contact information to make sure you receive emergency alerts.

1. Log in to eServices (https://ps.losrios.edu/student/signon.html).
2. Click *Profile*.
3. Click *Emergency Alert Information*.
4. Update your information and click *Save*.

Illegal Drugs

American River College is committed to being a drug-free campus. Violators will be subject to disciplinary procedures. The use, sale, or possession on campus of, or presence on campus under the influence of, any controlled substance is strictly prohibited. Violators are subject to suspension, expulsion, and/or criminal prosecution (per Los Rios Policy P-2441: Standards of Conduct

(https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/college-safety-and-security/shared/doc/policies/board/P-2441.pdf) and Los Rios Policy P-2443: Drug and Alcohol-Free Workplace and College Premises (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/college-safety-and-security/shared/doc/policies/board/P-2443.pdf)).

Children on Campus

It is not appropriate for children to attend classes with their parents. All children on campus must be under the direct supervision of a parent, guardian, or other authorized adult. Unattended or disruptive children will be reported to the proper authorities.

Parking

Vehicles that do not have a valid semester parking decal or daily permit properly displayed will be issued a parking citation. There is a $283 fine for parking in designated disabled spaces (including hatch marks next to disabled spaces) without a state-issued disabled decal or plate.

Sexual Harassment

Sexual harassment in any situation is unacceptable and is in violation of state and federal laws and regulations. Corrective action will be taken where evidence of sexual harassment is found (per Los Rios Policy P-2424: Sexual Harassment (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/college-safety-and-security/shared/doc/policies/board/P-2424.pdf)).

Hate Crimes

Hate crimes include any of the following offenses that are motivated by bias:

- Murder/non-negligent manslaughter, negligent manslaughter, sexual assault, robbery, aggravated assault, burglary, motor vehicle theft, arson
- Larceny-theft: The unlawful taking carrying, leading or riding away of property from the possession or constructive possession of another
- Constructive possession: the condition in which a person does not have physical custody or possession, but is in a position to exercise dominion or control over a thing
- Simple assault: an unlawful physical attack by one person upon another where neither the offender displays a weapon, nor the victim suffers obvious severe or aggravated bodily injury involving apparent broken bones, loss of teeth, possible internal injury, severe laceration, or loss of consciousness
- Intimidation: To unlawfully place another person in reasonable fear of bodily harm through the use of threatening words and/or other conduct, but without displaying a weapon or subjecting the victim to actual physical attack
- Destruction, damage, vandalism: To willfully or maliciously destroy, damage, face, or otherwise injure real or personal property without the consent of the owner or the person having custody or control of it

Campus Traffic Regulations

Los Rios Police Department (LRPD) enforces the California Vehicle Code (CVC) and board-approved regulations on grounds designated for vehicle parking and traffic.

For more information, see parking regulations (https://police.losrios.edu/parking-resources/parking-regulations).

Reporting a Crime/Incident

To report an on-campus crime or incident, see crime and reporting (https://police.losrios.edu/crime-and-reporting) on the Los Rios Police Department website.

Clery Report

Each year, the Los Rios Police Department publishes the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Report (also known as the Annual Clery Report). This report includes information about our safety and security policies and specific crime statistics.

View the Clery Report (https://police.losrios.edu/clery) on the Los Rios Police Department website.

Student Rights and Responsibilities

Academic Rights and Responsibilities

The classroom (including laboratories, field trips, independent study, and so on) is the essential part of any college where freedom to learn should flourish. The instructor has the responsibility for the manner of instruction and the conduct of the classroom. The instructor should not act in any way that denies the rights of students as set forth below (Administration Regulation R-2411: Student Rights and Responsibilities (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/student-rights-and-responsibilities/shared/doc/board/regulations/R-2411.pdf)).

Student Academic Rights

Student Publications

In preparing student publications, the editorial staff and faculty advisors shall be free from censorship and advance copy approval except as provided by published district policy, statutes, or college regulation. These publications should do the following:

- Adhere to canons of responsible journalism, such as avoidance of libel, indecency, undocumented allegations, attacks on personal integrity, and the techniques of harassment and innuendo.
- State on the editorial page that the opinions expressed are not necessarily those of the college or the student body.

Support Causes

Students shall have the right to:

- Take stands on issues
- Examine and discuss questions of interest to them
- Support causes by orderly means which are in harmony with the regular functioning of the institution

Free Assembly and Free Speech

Students shall have the right to hear speakers on any subject and college recognized student organizations shall have the right to present speakers on any subject. In addition, students shall have the right of free assembly on each campus subject to regulations that assure the regular functioning of the institution.

The policies and regulations shall include reasonable provisions for the time, place, and manner of conducting these activities, but shall not prohibit the right of students to exercise free expression including, but not limited to, the use of bulletin boards, the distribution of printed materials or petitions, and the wearing of buttons, badges, and other insignia.

Expression which is obscene, libelous, or slanderous according to current legal standards, or which so incites students as to create a clear and present danger of the commission of unlawful acts on college premises, or the violation of lawful district or college regulations, or the substantial disruption of the orderly operation of the college, shall be prohibited.

Free to Organize

Students shall have the right to form an organization around any particular interest. This right includes the freedom to organize and to join student organizations subject to published college and district regulations.

Voice in Decision-Making

Students shall have the right to be informed on all college matters that can be shown to be directly relevant to them by having a voice in decision making that affects their academic future, with the exception of staff appointment, termination, and tenure.

In case of conflict in determining what college matters are relevant to students, the determination will be made by a college-designated student, faculty, and administrative committee.

In addition, student representatives shall be members of all faculty and administrative committees related to students' concerns; such student representatives shall have a vote as committee members.

Confidentiality

Students shall have the right to have their academic records treated in a confidential and responsible manner with due regard to the personal nature of the information these records contain. Students' records will be released only on the written consent of the students or as provided by law. Learn more about access to student records (https://arc.losrios.edu/access-to-student-records).

Academic Evaluation

Students shall have the right of protection against prejudiced or capricious academic evaluation. At the same time, students are responsible for maintaining standards of academic performance established in advance for each course in which they are enrolled.

Grievance Procedure

Students shall have the right to file a grievance as outlined in Administrative Regulation R-2412: Student Grievance Procedures (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/student-rights-and-responsibilities/shared/doc/board/regulations/R-2412.pdf), in the event of an alleged breach of their rights. American River College's designated grievance officer will hear grievances of students who believe their academic rights have been denied or violated.

Go to Class-Related Concerns (https://arc.losrios.edu/class-related-concerns)

Student Responsibilities

The Expectations of the College

Admission to college assumes the expectation that the student will:

- Be a responsible member of the college community
- Obey the law
- Comply with the published rules and regulations of the college
- Respect the rights, privileges, and property of the other members of the college community
- Not interfere with legitimate college affairs

Students enrolled in a class are responsible for meeting standards of performance and conduct established by the Los Rios Community College District and the instructor. Students are responsible for registering, "adding," and "dropping" classes in a timely fashion to make sure that other students have an opportunity to take classes. Students are responsible for completing and submitting all class assignments, examinations, tests, projects, reports, and so on by scheduled due dates, or face penalties.

If any problem arises regarding coursework or attendance, the student will be held responsible for initiating communication and contact with the instructor. In addition, students will be held responsible for behavior and conduct adverse to the preservation of order as established by the college and the instructor. Students are responsible for meeting their degree requirements as provided in the college catalog.

See Students Standards of Conduct (https://arc.losrios.edu/standards-of-conduct)

Students also have the responsibility to use information technology resources effectively. Each user has the responsibility to:

- Use the resources appropriately and efficiently
- Respect the freedom and privacy of others
- Protect the stability and security of the resources

- Understand and fully abide by established college policies and applicable public laws

In the case of student conduct that involves an alleged or proven violation of criminal law, the disciplinary authority of the college will not be used to duplicate the function of criminal authority. Disciplinary action may be taken if the conduct also involves a violation of district or college policy.

See Student Disciplinary Procedures (https://arc.losrios.edu/student-discipline)

Access to Student Records (FERPA)

Use and Release of Student Information

The Family Educational Rights and Privacy Act of 1974 (FERPA) was designed to protect the privacy of educational records and to establish the rights of students to inspect and review their educational records. It also provides control over the release of educational record information. The original intent of this legislation was to keep elementary and high school records private and to give parents access to their child's school records.

After a student turns eighteen or attends an institution of higher education (a college or university), the rights of access to the student's records transfer to the student. This means that all academic information regarding a college student goes directly to the student unless the student has given specific, written permission to release that information to someone else.

Though parents understandably have an interest in their child's academic progress, they are not automatically granted access to a student's records without the written consent of the student. Parents are encouraged to consult with the student if academic information is needed.

A student can give permission for a third party to access their records by filing a Student Consent for Release of Records Form (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/student-rights-and-responsibilities/shared/doc/admissions-records/forms/student-consent-for-release-of-student-records.pdf) with the Admissions and Records office.

The security of student information is very important to us, which is why we will not discuss student records over the phone. This includes resetting a student's password. If you do not remember your password reset questions, then you must come to the campus or one of the outreach centers in person with photo identification.

To obtain a copy of your records – including your current enrollment – you can log in to eServices (https://ps.losrios.edu/student/signon.html) or come to campus in person with photo identification. You can order your official transcripts online (https://arc.losrios.edu/order-transcripts).

Student Rights Under FERPA

Students have the right to:

1. 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 their record, then 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 by 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.
2. 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 their record, then the student should submit a statement to the college official responsible for the record, clearly identifying the part of the record they want to be changed and why they believe it is inaccurate or misleading. That office will notify the student of their decision and advise of any appropriate appeal rights.

3. 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 that 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 to provide services, the board of trustees, or students serving on a committee or assisting another school official in the performance of their tasks. A legitimate educational interest exists when the school official has a need to know the information in connection with their official duties.
    - "Directory information," which includes a student's name, 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 in the Admissions and Records Office. 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.
4. File a complaint with the US Department of Education concerning alleged failures by the district or college to comply with the requirements of FERPA. Further information about FERPA and student records can be found in the District Policy P-2265: Access to Student Records (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/student-rights-and-responsibilities/shared/doc/policies/board/P-2265.pdf) and Regulation R-2265: Access to Student Records (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/student-rights-and-responsibilities/shared/doc/board/regulations/R-2265.pdf) or at the college office of the Vice President of Student Services.

Alcohol, Drug, and Smoking Policy

Alcohol and Drug Policy

The abuse of illicit drugs and alcohol disrupts classes, compromises your physical and mental health, subjects you to criminal penalties, and impairs your ability to benefit from the learning experience. We, therefore, ask the college community to actively support a drug- and alcohol-free learning environment by knowing and making others aware of college policies and the substantial health and legal consequences of abuse.

District Policy

Policy P-2443: Drug and Alcohol-Free Workplace and College Premises (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/student-rights-and-responsibilities/shared/doc/policies/board/P-2443.pdf) states that the district "is committed to maintaining a drug- and alcohol-free workplace in accordance with the requirements of the US Drug-Free Workplace Act of 1988, and a drug- and alcohol-free college environment for students and employees in accordance with the requirements of the Drug-Free Schools and Community Act Amendment of 1989."

Legal Sanctions

The Los Rios Standards of Student Conduct prohibit the use, sale, or possession on campus of, or presence on campus under the influence of, any controlled substance. Controlled substances include cocaine, marijuana, LSD, heroin, methadone, mescaline, peyote, and methaqualone, among others.

If you abuse drugs or alcohol on campus or appear on campus or at a college-sponsored function under the influence of drugs or alcohol, you can be suspended, expelled, and/or criminally prosecuted. The penalties for the more common offenses are:

- Possession or use of alcohol: one year in jail and/or fine
- Possession of marijuana: criminal citation and fine
- Possession of cocaine: imprisonment in a state prison
- Sales of any illegal drug: imprisonment in a state prison
- Possession or use of alcohol by a minor: one year in jail and/or fine

- If you are a student employee, you may be terminated
- You are required to report any convictions within five days of the occurrence
- You will be ineligible for financial aid

Smoking Policy

Per section 2.23 of Regulation R-1411: Use of Facilities (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/student-rights-and-responsibilities/shared/doc/board/regulations/R-1411.pdf), smoking, vaping, and the use of tobacco is prohibited on all district/college property. Smoking is defined as inhaling, exhaling, burning, or carrying any lighted or heated cigar, cigarette, pipe, or any other lighted or heated tobacco or other product intended for inhalation, in any matter or in any form. Smoking also includes the use of e-cigarettes. An e-cigarette is any oral device that provides a vapor of nicotine or any other substance for inhalation. E-cigarettes do not include products approved by the United States Department of Food and Drug Administration for medical treatment.

Computer and Internet Use Policy

Computer Use Policy

The following rules apply to all computer labs on campus. Specific labs may have additional rules.

General Rules

- Equipment use in the lab is intended for class assignments only – use of computers is closely monitored for compliance with acceptable use standards
- Computers are available on a first-come, first-served basis
- Food and/or drinks (including water bottles) are not allowed in computer labs at any time
- Children (under 18) are not allowed to use computer equipment unless they are current American River College students
- Report problems with computers and/or printers to computer lab staff
- A valid login may be used for assigned purposes only – sharing access with others is not permitted
- All downloading and saving must be to removable media
- Playing games on college computers is prohibited except for class assignments
- When you're done, log off the computer but don't turn the computer off
- Directions from any lab assistant or instructor concerning equipment/facilities or student conduct must be followed in order to continue use of the facilities

Respect Those Around You

- Bring your own headphones for sound control.
- Pets are not allowed, except for service animals.
- Keep noise to a minimum
- Use one workstation per person
- Keep backpacks out of the walkways
- Turn off or silence cell phones and pagers and answer phone calls outside of the lab

Software

- Software may not be copied from computers or network drives
- Installing software or games on computers is prohibited

Internet Use Policy

Internet access is limited to *classroom assignments only*.

The acceptable use standards concerning internet use must be followed where applicable. The following activities are not allowed:

- Transmitting unsolicited information, which contains profane language or panders to bigotry, sexism, or other forms of discrimination
- Using the internet to gain unauthorized access to any computer
- Engaging in personal attacks (writing bullying, intimidating, threatening, or harassing entries)
- Making threats (directed towards others or yourself) without expecting the recipients of those threats, the college, and the police to consider them real
- Transmitting information that contains obscene, indecent, lewd, or lascivious material or other material that explicitly or implicitly refers to sexual conduct. This includes displaying such material where other individuals could potentially view it
- Inappropriate mass mailing, which includes multiple mailing to news groups, mailing lists, or individuals

Attempts by students to obtain, manipulate, delete, or change the contents of another user's files, passwords, etc. are regarded as infractions of the California Computer Crime Penal Code. Attempts to "break" the operating system constitute a felony under this law.

Copyright and Piracy Policy

What is a Copyright?

A copyright is a legal protection that gives the developer of an original piece of work (intellectual or artistic) exclusive rights for a certain time period. Copyright infringement is the unauthorized use of copyrighted material.

What is Piracy?

Piracy is the recreational downloading of copyrighted materials. Piracy is a violation of both federal law and college policy. The Recording Industry Association of America (RIAA) and Motion Pictures Association of America (MPAAP) have been cracking down on piracy in the US and targeting university and college networks, since this is where the highest amount of copyright infringements occur.

What is Peer-to-Peer (P2P) Software?

Peer-to-Peer (P2P) software allows users to download and distribute files from computer to computer across networks using P2P protocols, regardless of whether the user has paid for the files. When users have not paid for these files, they break federal and international copyright laws.

Piracy is not the only down side of using P2P software. P2P software allows users to access your computer and potentially hack into your private data. The result is exposure of your computer to significant security risks from viruses, worms, and hackers that could lead to possible loss of data, identity theft, and other liabilities.

College Actions for Violation

Sharing music, videos, or other copyrighted materials using Peer-to-Peer (P2P) applications over the network exposes you and anyone you share files with to legal action.

If a notice is sent from a trusted agency to American River College, then the student's account will be blocked from accessing the WiFi network. The student in question may have to go through the college's disciplinary process to regain access.

Summary of Civil and Criminal Penalties for Violation of Federal Copyright Laws

Copyright infringement is the act of exercising, without permission or legal authority, one or more of the exclusive rights granted to the copyright owner under section 106 of the Copyright Act (Title 17 of the United States Code). These rights include the right to reproduce or distribute a copyrighted work. In the file-sharing context, downloading or uploading substantial parts of a copyrighted work without authority constitutes an infringement.

Penalties for copyright infringement include civil and criminal penalties. In general, anyone found liable for civil copyright infringement may be ordered to pay either actual damages or "statutory" damages affixed at not less than $750 and not more than $30,000 per work infringed. For "willful" infringement, a court may award up to $150,000 per work infringed. A court can, in its discretion, also assess costs and attorneys' fees. For details, see Title 17, United States Code, Sections 504, 505.

Willful copyright infringement can also result in criminal penalties, including imprisonment of up to five years and fines of up to $250,000 per offense.

Additional Resources

- Policy P-8861: Copyright (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/student-rights-and-responsibilities/shared/doc/policies/board/P-8861.pdf)
- US Copyright Office (https://www.copyright.gov)

Disciplinary Procedures and Due Process

The following are the disciplinary and due process procedures for when a student is referred to the Student Advocacy and Accountability Office.

1. A student who is referred for discipline is required to meet with the Student Accountability Officer. This referral means the student's alleged behavior is believed to have been a violation of the Los Rios Student Standards of Conduct.
2. The student will receive a certified letter via US standard mail notifying them of their referral. In the notification, the student is instructed to make an appointment for an investigative meeting with the Student Accountability Officer.
3. At the informal, investigative meeting, the Student Accountability Officer shall interview the student for the purpose of discussing the alleged misconduct and the disciplinary action that should be taken (if any).
4. At the investigative meeting, the parties shall have the right to present statements, testimony, evidence, and witnesses, except that neither party shall have the right to be represented by an attorney.
5. The investigative meeting is mandatory. If the student fails to make an appointment and/or does not attend the meeting, then the Student Accountability Officer may review the case and initiate disciplinary action without input from the student.
6. After the investigative meeting, the Student Accountability Officer may initiate disciplinary action by filing a notice with the Vice President of Student Services and serving such notice on the student charged. This decision depends entirely on the information obtained during the investigation.
7. The student has the right to request an appeal to the disciplinary action with the Vice President of Student Services, no later than seven (7) days after the service of the notice of disciplinary action. A copy of the appeal form will be mailed to the student along with a notice of disciplinary action.
8. After an appeal hearing, a written decision will be mailed to the student from the Office of the President within ten days of the conclusion of the hearing.
9. At this point, the final decision for disciplinary action rests with the College President. The president may approve, reject, or modify the written decision. The decision of the college president for disciplinary action is final.

Refer to Regulation R-2442: Due Process (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/student-rights-and-responsibilities/shared/doc/board/regulations/R-2442.pdf) for complete information regarding student standards of conduct and due process.

Contact

For additional information on student conduct, please contact the Student Accountability Officer:

Steven Roberson, Ed.D (Associate Vice President of Student Services and Equity)
Email: Email: roberss@arc.losrios.edu
Phone: (916) 484-8403

Photo and Video Policy

The Los Rios Community College District and its colleges take photos and video of students throughout the year. These images often include students in classrooms, study areas, athletic events, etc.

American River College reserves the right to use these photographs and/or videos as a part of its publicity and marketing efforts. Students who enroll at American River College do so with the understanding that these photographs and/or videos might include them and/or their family members and might be used in college publications, both printed and electronic, and for publicity.

Plagiarism and Cheating Policy

Academic Integrity and Responsibility

Academic integrity and responsibility mean acting honestly, conscientiously, and honorably in all academic endeavors. Students are accountable for all that they say and write. Since trust is the foundation of an intellectual community, and since student work is the basis for instructors to evaluate student performance in courses, students should not misrepresent their work nor give or receive unauthorized assistance.

Academic Dishonesty

In contrast to academic integrity and responsibility, academic dishonesty takes the form of plagiarism and/or cheating.

Plagiarism

The word plagiarism comes from the Latin word "plagiarius," meaning kidnapper. Plagiarism is generally the taking of words, sentences, organization, and ideas from another source without acknowledging that source.

Plagiarism may include:

- Submitting papers, examinations, or assignments written/completed entirely or in part by others
- Directly copying portions of another's work without enclosing the copied passage in quotation marks for written work or without citing appropriately in an oral presentation and without acknowledging the source in the appropriate scholarly convention whether the work is presented in written or oral form
- Using a unique term or concept without acknowledging the source
- Paraphrasing or summarizing a source's ideas without acknowledging the source
- Replicating a visual presentation, representation, or performance without acknowledging the source

Cheating

Cheating is similar to plagiarism in that it involves representing another's work as one's own. However, cheating often involves more overtly deceptive or fraudulent acts of academic dishonesty designed to gain credit for academic work that is not one's own.

Cheating may include:

- Giving or receiving unauthorized assistance during an examination
- Fabricating or altering a source of data in a laboratory or experiment
- Collaborating with others when collaboration is not permitted, or when the contributions of others are not made clear
- Using unauthorized materials or aids during an examination, including calculators, dictionaries, or information accessed via any electronic devices
- Acquiring, without permission, tests or other academic material belonging to a member of the college faculty or staff

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 American River College can be found on the California Community College State Chancellor's Office Student Right-to-Know Rate Disclosure Website (http://srtk.cccco.edu/index.asp).

Service Animals on Campus

Students and employees with a disability* who need a service animal may use a service animal (including a service animal in training) on district and college property. Therapy animals and pets are not allowed.

**Disability must be consistent with guidelines set forth by the Americans with Disabilities Act (ADA) and the Fair Employment and Housing Act (FEHA).*

Service Animal Guidelines

Service animals are subject to the following guidelines:

1. A service animal is any dog or miniature horse that is trained to do work or perform tasks for an individual with a disability.
2. Faculty, staff, or student owners of service animals who wish to bring the animal to campus are requested, but not required, to register their service animal (https://arc.losrios.edu/service-animals#serv-animal-form) with the Vice President of Student Services or Vice President of Administrative Services. Registration provides a quick way to demonstrate that the service animal is properly on campus.
3. If the owner applies for registration, the owner must provide documentation of their service animal's current shot/vaccination records at the time of registration. Visitors should check in with the Vice President's offices.
4. If the owner applies for registration, the owner must provide documentation of appropriate licenses.
5. If the owner applies for registration, the owner should carry proof of service animal registration when accompanied by that service animal on campus.
6. The owner is responsible for caring for and supervising the service animal, which includes toileting, feeding, grooming, and veterinary care. Los Rios employees are not obligated to supervise or otherwise care for a service animal. (See ADA Service Animal FAQs (https://www.ada.gov/resources/service-animals-faqs).)
7. A service animal must be under the control of its handler. Under the ADA, service animals must be harnessed, leashed, or tethered, unless the individual's disability prevents using these devices or these devices interfere with the service animal's safe, effective performance of tasks. In that case, the individual must maintain control of the animal through voice, signal, or other effective controls. (See ADA Service Animal Requirements (https://www.ada.gov/resources/service-animals-2010-requirements).)
8. The service animal must be in good health and free of fleas and external parasites.
9. The service animal must be on a leash at all times.
10. The owner is responsible for all cleanup of animal feces.
11. Service animals that disrupt the learning environment and the ability of others to learn may be excluded from campus.
12. Service animals that are ill, unclean, noisy, or bedraggled will not be allowed on campus.
13. Service animals that show unprovoked aggressive tendencies or are deemed potentially dangerous will not be allowed on campus.
14. Service animals are not permitted to be in the following areas: mechanical rooms/custodial closets, any room where protective gear is worn, or any room that poses a potential danger to the animal.
15. The owner will be financially responsible for any damage or cleaning costs resulting from the animal being brought onto campus. Animals that cause damage may be excluded from the campus.

Individuals who bring a service animal to campus must extend courtesy and respect to colleagues, students, and visitors in the area. Owners are required to keep service animals on a leash and should consider safety, health, and the possible fears others may have in the presence of animals.

Social Media Policy

Social Media Participation Guidelines

As an institution of higher learning, American River College – by its very nature – embraces the free and open exchange of ideas. To that end, we are committed to the community's First Amendment rights and the core values of free speech.

We believe in fostering a thriving online community. We support the various channels of social networking – Facebook, Twitter, YouTube, Instagram, and so on – as valuable tools for engaging students, staff, faculty, alumni, friends, and supporters in a constructive two-way dialogue about American River College and its mission.

At the same time, the long-term value, vibrancy, and success of any social media community depends on a shared philosophy of how to behave. Members of our community should become familiar with Facebook's Terms of Service (https://www.facebook.com/legal/terms), Twitter's Rules and Policies (https://help.twitter.com/en/rules-and-policies), YouTube's Policies (https://www.youtube.com/about/policies/#community-guidelines), Instagram's Terms of Use (https://help.instagram.com/581066165581870), and similar support sites for social media. The emphasis for all participants – including site administrators – should always be transparency, honesty, respect, and civility.

All content, information, and views expressed on social media belong to the individuals posting the content. These views do not necessarily reflect the official policies or positions of the college, district, or Board of Trustees. We are not responsible for unanswered posts or inaccurate information posted by others.

Here are guidelines for engaging in American River College social media platforms:

- Be respectful of the rights and opinions of others. Be willing to agree to disagree and move on.
- Stay on topic. Our social media sites are established as forums for the open and honest discussion of matters and developments related to – and limited to – our mission (https://arc.losrios.edu/about-us/our-values).
- Be transparent and honest.
- Add value. Be part of the conversation but don't take it over.
- Avoid hateful speech, personal attacks, flaming, profanity, vulgarity, pornography, nudity, and abusive language.
- Keep personal information (for example, your phone number and address) out of your posts.
- Think before you post. Almost everything you write or post to a social media site – words, pictures, video – is public or can be discovered. If you post on any of our social media sites, then you consent that what you post can be published and you waive any expectation of privacy regarding the post. What you choose to add to the conversation today will live on long after the subject matter has come and gone as a topic of conversation.
- We encourage you to post comments and "like" articles, photos, and videos you enjoy.

On our Facebook, Twitter, YouTube, and Instagram pages and other social media platforms, our goal is to post interesting, entertaining, and educational content. We welcome your comments and suggestions. We encourage conversation and dialogue, but we want to ensure a respectful online environment and invigorating conversation for the broader college community. Our page administrators review posts and comments regularly to ensure any issues or concerns are addressed promptly.

We may or may not reply to comments, but if it's provocative, fair, and insightful, chances are others will engage in the conversation.

We reserve the right to determine and remove from American River College social media sites any of the following:

- Comments, links, images, or videos that are illegal or encourage illegal activity, or are obscene, defamatory/libelous/slanderous, indecent, lewd, lascivious, sexually harassing or explicit in nature, or pose risks to the health or safety of individuals
- Comments that personally attack or threaten any person
- For students, anything that would violate District policies regarding student regulations (https://losrios.edu/about-los-rios/board-of-trustees/policies-and-regulations)
- For staff and faculty, anything that would violate District policies regarding staff and faculty regulations (https://losrios.edu/about-los-rios/board-of-trustees/policies-and-regulations)
- Successive off-topic posts by one or more individuals or groups
- Repetitive posts copied and pasted or duplicated by one or more individuals or groups

- Solicitations or advertisements
- Any materials that infringe upon the intellectual property or other rights of any third party

Standards of Conduct

Code of Conduct

A student who enrolls at American River College may rightfully expect that students, faculty, and administrators will maintain an environment in which there is freedom to learn.

Student conduct must comply with federal and state laws, college rules and regulations, and Administrative Regulation R-2441: Standards of Conduct (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/student-rights-and-responsibilities/shared/doc/board/regulations/R-2441.pdf). Students who violate such rules and regulations are subject to disciplinary action.

Disciplinary Offenses

Any student found to have committed, or to have attempted to commit, the following misconduct is subject to appropriate disciplinary action:

- Continued disruptive behavior, continued willful disobedience, habitual profanity or vulgarity, or the open and persistent defiance the authority of, or persistent abuse of, members of the college community
- Assault, battery, or any threat of force or violence upon members of the college community
- Willful misconduct which results in injury or death to members of the college community, or which results in cutting, defacing, or other injury to any real or personal property owned by the district
- The use, sale, or possession on campus of, or presence on campus under the influence of, any controlled substance (See alcohol, drug, and smoking policies (https://arc.losrios.edu/about-us/our-values/student-rights-and-responsibilities/alcohol-drug-and-smoking-policies))
- Willful or persistent smoking in any area where smoking has been prohibited by law or district policy (See alcohol, drug, and smoking policies (https://arc.losrios.edu/about-us/our-values/student-rights-and-responsibilities/alcohol-drug-and-smoking-policies))
- Persistent, serious misconduct where other means of correction have failed to bring about proper conduct
- Violation of College rules and regulations including those concerning student organizations, the use of college facilities, or the time, place and manner of public expression and distribution of materials
- Obstruction or disruption of teaching, research, administrative disciplinary procedures or other college activities, including its community service activity, or of other authorized activities on college-controlled premises
- Theft of or non-accidental damage to property of the college or a member of the college community while on campus or at college-sponsored events
- Unauthorized entry to or use of college facilities
- Dishonesty, such as cheating, plagiarism, or furnishing false information to the college; forgery, alteration, or misuse of college documents, records, or identifications (See plagiarism and cheating policies (https://arc.losrios.edu/about-us/our-values/student-rights-and-responsibilities/plagiarism-and-cheating))
- Knowing possession or use of explosives, dangerous chemicals or deadly weapons on college property or at a college function without prior authorization of the college president or designated representative
- Use, possession, distribution or being under the influence of alcoholic beverages, narcotics or dangerous drugs on college property or at college-sponsored events (See alcohol, drug, and smoking policies (https://arc.losrios.edu/about-us/our-values/student-rights-and-responsibilities/alcohol-drug-and-smoking-policies))
- Soliciting or assisting another to do any act which would subject a student to expulsion, suspension, probation or other discipline pursuant to Regulation R-2441: Standards of Conduct (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/student-rights-and-responsibilities/shared/doc/board/regulations/R-2441.pdf)

- Violation of any order of a college president, notice of which has been given prior to such violation, and which order is not inconsistent with any of the other provisions of this policy. This notice may be given by publication in the college newspaper, by posting on an official bulletin board designated for this purpose or by any other means reasonably calculated to inform students of its provisions.
- Attempting to commit an act that would be cause for disciplinary action identified above

Student Grievance and Class-Related Concerns

Students are provided opportunities to informally resolve problems or complaints related to their experience at American River College (ARC). In the event that informal resolution is not found, students may file a request for a formal grievance hearing. The Student Grievance Officer is available to help both students and college staff understand their rights and to advise them about the process.

Steps to Resolution

Note: the informal process must begin within ten (10) days of the incident.

1. Students should speak with their instructor about the concern and attempt to resolve the problem informally.
2. Students who feel as though they are unable to speak with their instructor or resolve the situation should contact the instructional division area dean.
3. If the issue is not revolved by meeting with the instructor and/or divisional dean, then the student should contact the Student Grievance Officer and initiate a formal grievance
4. If applicable, there will be a student grievance hearing and the opportunity for a written appeal.

Filing a Formal Grievance

There are specific timelines and date limitations to file a formal grievance. The formal grievance process must begin within five (5) calendar days of the attempted informal resolution. File a Student Grievance Form (https://arc.losrios.edu/about-us/contact-us/report-a-concern-complaint-or-grievance) online.

What You Should Know About Student Grievance Procedures

- Students may not grieve grades unless they demonstrate "there is a mistake, fraud, bad faith, or incompetence" in the giving of the grade. (Education Code, section 76224(a) and Los Rios Community College District Policy 2412).
- If a student does not meet the specific grievance timelines, the grievance is deemed waived and may not be pursued further.
- The student must seek informal resolution of his or her complaint by meeting with the faculty or other staff member, and/or that individual's supervisor, within 10 calendar days of the alleged grievable act.
- If informal resolution is not achieved, the student must file a Grievance Form with the Grievance Officer within five (5) calendar days of that attempt at resolution. The process must be initiated by the student not later than 25 days after the date of the alleged grievable act.
- The college Grievance Officer will review the student's documentation and interview the student to determine whether the complaint is grievable.
- If the Grievance Officer determines that the complaint is not grievable (meaning that sufficient evidence of the alleged wrongdoing is not provided or that the action does not fall within the scope of the grievance process), then the student will receive a letter to that effect. The Grievance Officer's decision on this point is final.
- If the complaint is found to be grievable, a hearing will be scheduled. An independent Hearing Officer will be appointed.
- The decisions of the Hearing Officer can be appealed to the Chief Student Services Officer. The Chief Student Services Officer's determination is final.

Contact

For information on how to file a formal grievance, please contact the Student Grievance Officer:

Nisha Beckhorn (Dean of Student Services, Counseling and Transfer Services)
Email: andrewm2@arc.losrios.edu
Phone: (916) 484-8375

Additional Grievance Information

A student may file a grievance or grieve an action or decision of the district or one of its colleges when the student's status and/or rights have been adversely affected.

Grievances relating to grades are subject to Education Code Section 76224(a), which reads:

> "When grades are given for any course of instruction taught in a community college district, the grade given to each student shall be the grade determined by the instructor of the course and the determination of the student's grade by the instructor, in the absence of mistake, fraud, bad faith, or incompetence, shall be final."

In addition to complaints being filed by students or employees, complaints may 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 per Los Rios Regulation R-2423: Discrimination and Harassment Complaint Procedures (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/student-rights-and-responsibilities/shared/doc/board/regulations/R-2423.pdf).

Equal Opportunity, Equity, Discrimination, and Harassment

Equal Opportunity

Equal Opportunity is the Law

American River College is an equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities through Disability Services and Programs for Students (https://arc.losrios.edu/dsps).

As a recipient of federal financial assistance, it is against the law for American River College to discriminate against any individual in the US based on the following: race, color, religion, sex (including pregnancy, childbirth, and related medical conditions, sex stereotyping, transgender status, and gender identity), national origin (including limited English proficiency), age, disability, or political affiliation or belief, or, against any beneficiary of, applicant to, or participant in programs financially assisted under Title I of the Workforce Innovation and Opportunity Act, on the basis of the individual's citizenship status or participation in any WIOA Title I-financially assisted program or activity.

American River College must not discriminate in any of the following areas:

- Deciding who will be admitted, or have access, to any WIOA Title I-financially assisted program or activity
- Providing opportunities in, or treating any person with regard to, such a program or activity
- Making employment decisions in the administration of, or in connection with, such a program or activity

Recipients of federal financial assistance must take reasonable steps to ensure that communications with individuals are as effective as communications with others. This means that, upon request and at no cost to the individual, American River College is required to provide appropriate auxiliary aids and services to qualified individuals with disabilities.

What to Do If You Believe You Have Experienced Discrimination

If you think that you have been subjected to discrimination under a Workforce Innovation and Opportunity Act (WIOA) Title I financially assisted program or activity, then you may file a complaint within 180 days from the date of the alleged violation with either American River College's Equal Opportunity Officer (or the person whom the recipient has designated for this purpose) or the U.S. Department of Education, Office of Civil Rights (OCR) and/or California Civil Rights Department (CRD).

American River College Equity Officer

Contact David Miramontes-Quiñones at (916) 484-8723 or MiramoD@arc.losrios.edu.

In addition to filing a complaint with the college's equity officer, students and employees may file a complaint with the U.S. Department of Education, Office of Civil Rights (OCR) (https://www.ed.gov/about/ed-offices/ocr).

Employees may also file a complaint with the California Civil Rights Department (CRD) (https://calcivilrights.ca.gov/).

If you file your complaint with American River College, then you must wait either until American River College issues a written Notice of Final Action, or until 90 days have passed (whichever is sooner), before filing with the U.S. Department of Education, Office of Civil Rights (OCR) or California Civil Rights Department (CRD).

If American River College does not give you a written Notice of Final Action within 90 days of the day on which you filed your complaint, then you may file a complaint with the OCR and/or CRD before receiving that notice. However, you must file your OCR/CRD complaint within 30 days of the 90-day deadline (in other words, within 120 days after the day on which you filed your complaint with the recipient).

If American River College does give you a written Notice of Final Action on your complaint, but you are dissatisfied with the decision or resolution, then you may file a complaint with the OCR and/or CRD. You must file your OCR/CRD complaint within 30 days of the date on which you received the Notice of Final Action.

La Igualdad De Oportunidades Es La Ley

Es ilegal que este beneficiario de asistencia financiera federal discrimine contra cualquier persona en los Estados Unidos por motivos de raza, color, religión, sexo (incluido el embarazo, parto y condiciones médicas relacionadas, estereotipos de sexo, estatus transgénero e identidad de género), origen nacional (incluida la competencia limitada en inglés), edad, discapacidad, o afiliación o creencia política.

También es ilegal discriminar contra cualquier beneficiario, solicitante o participante en programas financiados bajo el Título I de la Ley de Innovación y Oportunidades de la Fuerza Laboral (WIOA, por sus siglas en inglés), por motivos de estatus de ciudadanía o participación en cualquier programa o actividad financiada bajo dicho título.

El destinatario no debe discriminar en ninguna de las siguientes áreas: determinar quién será admitido o tendrá acceso a cualquier programa o actividad financiada bajo el Título I de WIOA; proporcionar oportunidades o tratar a cualquier persona en relación con dicho programa o actividad; ni tomar decisiones de empleo en la administración de, o en relación con, dicho programa o actividad.

Los destinatarios de asistencia financiera federal deben tomar medidas razonables para garantizar que las comunicaciones con las personas con discapacidades sean tan efectivas como las comunicaciones con las demás personas. Esto significa que, previa solicitud y sin costo para la persona, los destinatarios deben proporcionar ayudas y servicios auxiliares apropiados a personas calificadas con discapacidades.

Qué Hacer Si Cree Que Ha Sido Objeto de Discriminación

Si considera que ha sido objeto de discriminación en el marco de un programa o actividad financiada bajo el Título I de la Ley de Innovación y Oportunidades de la Fuerza Laboral (WIOA), puede presentar una queja dentro de los 180 días a partir de la fecha de la presunta infracción ante el Oficial de Igualdad de Oportunidades del destinatario (o la persona designada para este propósito),o ante la Oficina de Derechos Civiles (OCR) del Departamento de Educación de los Estados Unidos (https://www.ed.gov/about/ed-offices/ocr) y/o el Departamento de Derechos Civiles de California (CRD) (https://calcivilrights.ca.gov/).

American River College Oficial de Equidad

David Miramontes-Quiñones
Vice President of Student Services and Equity
Email: MiramoD@arc.losrios.edu
Phone: (916) 484-8723

In addition to filing a complaint with the college's equity officer, students and employees may file a complaint with the U.S. Department of Education, Office of Civil Rights (OCR) (https://www.ed.gov/about/ed-offices/ocr).

Employees may also file a complaint with the California Civil Rights Department (CRD) (https://calcivilrights.ca.gov/).

Además de presentar una queja ante el oficial de igualdad de la institución, los estudiantes y empleados también pueden presentar una queja ante la Oficina de Derechos Civiles (OCR) del Departamento de Educación de los Estados Unidos (https://www.ed.gov/about/ed-offices/ocr).

Los empleados también pueden presentar una queja ante el Departamento de Derechos Civiles de California (CRD) (https://calcivilrights.ca.gov/).

Si presenta su queja ante el destinatario, deberá esperar hasta que este emita una Notificación Final por escrito o hasta que hayan transcurrido 90 días (lo que ocurra primero), antes de presentar una queja ante la OCR o el CRD.

Si el destinatario no le proporciona una Notificación Final por escrito dentro de los 90 días posteriores a la fecha en que presentó su queja, puede presentar una queja ante la OCR y/o el CRD antes de recibir dicha notificación. Sin embargo, debe presentar su queja ante la OCR/CRD dentro de los 30 días posteriores al vencimiento del plazo de 90 días (es decir, dentro de los 120 días posteriores a la fecha en que presentó su queja ante el destinatario).

Si el destinatario sí le proporciona una Notificación Final por escrito sobre su queja, pero usted no está conforme con la decisión o resolución, puede presentar una queja ante la OCR y/o el CRD. Debe presentar su queja ante la OCR/CRD dentro de los 30 días a partir de la fecha en que recibió la Notificación Final.

Non-Discrimination Policy

At American River College, we value equity and diversity. That's why we work toward just and fair inclusion into a society in which all people can participate, prosper, and reach their full potential.

No person shall be unlawfully discriminated against, harassed, or excluded from any benefits, activities, or programs because they possess of any of the following characteristics (actual or perceived):

- Ethnic group identification
- Race or color
- Sex, gender, gender identity, or gender expression
- Pregnancy or childbirth-related condition
- Sexual orientation or sexual identity
- Religion or religious creed
- Age (over forty)
- National origin or ancestry
- Physical or mental disability
- Medical condition
- Political affiliation or belief
- Military and veteran status
- Marital status

In addition, retaliation against a person who files a complaint, refers a matter for investigation, participates in an investigation, or serves as an advocate for a complainant or respondent is prohibited by district policy.

For more information or to file a complaint, contact the American River College Equity Officer at arc-equity@arc.losrios.edu.

Sexual Harassment or Assault

Title IX (Sex Discrimination)

Title IX of the Educational Amendments of 1972 and subsequent amendments bans sex discrimination in schools, whether it be in academics or athletics. Title IX states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance."

The underlying intent of Title IX is to eliminate any form of discrimination based on gender that may interfere with a student's physical well-being, emotional well-being, and academic performance. Colleges and universities receiving federal funds bear an affirmative duty to ensure that no student (male or female) is deprived of an educational opportunity or benefit due to such discrimination.

Gender Harassment

Sex discrimination in the form of gender harassment consists primarily of repeated comments, jokes, and innuendoes directed at persons because of their gender or sexual orientation. This behavior typically is not aimed at eliciting sexual cooperation, but, like racial harassment, it contaminates the learning and work environment and has no place at American River College.

Examples of gender harassment include the following:

- Disparaging women's intellectual abilities and potential
- Using sexist statements in classroom discussions
- Disparaging the lifestyles or behaviors of gays or lesbians

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 workplace 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.

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 evaluation will be prepared; or suggesting a scholarship recommendation or college application will be denied.
- Offering favors of educational or employment benefits, such as grades or promotions, favorable performance evaluations, favorable assignments, favorable duties or shifts, recommendations, reclassifications, and so on, in exchange for sexual favors.

Sexual Assault

Sexual assault includes, but is not limited to:

- Rape
- Forced sodomy
- Forced oral copulation
- Rape by a foreign object
- Sexual battery
- Domestic violence
- Dating violence
- Stalking
- Threat of sexual assault

Sexual assault is a form of sexual harassment and should be reported under the district's Board Policy P-2423: Discrimination and Harassment Procedures (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/equal-opportunity-equity-discrimination-and-harassment/shared/doc/policies/board/P-2423.pdf) and Administrative Regulation R-2423: Discrimination and Harassment Procedures (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/equal-opportunity-equity-discrimination-and-harassment/shared/doc/board/regulations/R-2423.pdf).

Sexual Violence

Sexual violence means physical sexual acts perpetrated against a person's will or where a person is incapable of giving consent due to the victim's use of drugs or alcohol. An individual also may be unable to give consent due to an intellectual or other disability. Sexual violence includes, but is not limited to, rape, sexual assault, sexual battery, and sexual coercion.

Consent

Consent is the informed, affirmative, conscious decision by each participant to engage in mutually agreed-upon sexual activity.

Consent must be voluntary, and given without coercion, force, threats, or intimidation. Consent requires positive cooperation in a particular sexual act, or expression of intent to engage in that sexual act through the exercise of free will.

Consent can be withdrawn or revoked. Consent to one form of sexual activity (or one sexual act) does not constitute consent to other forms of sexual activity (or other sexual acts). Consent to sexual activity given on one occasion does not constitute consent to sexual activity on another occasion. The fact that two people are, or were in, a dating or sexual relationship does not constitute consent to engage in sexual activity. There must always be mutual and affirmative consent to engage in sexual activity. Consent to a sexual act may be withdrawn or revoked at any time, including after penetration. The victim's request for the perpetrator to use a condom or birth control does not, in and of itself, constitute consent. Once consent is withdrawn or revoked, the sexual activity must stop immediately.

Consent cannot be given by a person who is incapacitated. For example, a person cannot give consent if she/he is unconscious or coming in and out of consciousness. A person is incapacitated if she/he lacks the physical and/or mental ability to make informed, rational judgments. Examples of incapacitation include unconsciousness, sleep, and blackouts. Whether an intoxicated person (as a result of using alcohol or other drugs) is incapacitated depends on the extent to which the alcohol or other drugs impact the person's decision-making capacity, awareness of consequences, and ability to make fully informed judgments. A person with a medical or mental disability may also lack the capacity to give consent.

Being intoxicated by drugs or alcohol does not diminish a person's responsibility to obtain consent from the other party before engaging in sexual activity. Factors to be considered include whether the person knew, or whether a reasonable person in the accused's position should have known, that the victim did not give, or revoked, consent; was incapacitated; or was otherwise incapable of giving consent.

Sexual intercourse with a minor is never consensual when the victim is under 18 years old, because the victim is considered incapable of giving legal consent due to age.

Domestic Violence

Domestic violence is a form of sexual violence and is abuse committed against someone who is a current or former spouse, current or former cohabitant, someone with whom the abuser has a child, someone with whom the abuser has or had a dating or engagement relationship, or a person similarly situated under California domestic or family violence law.

Cohabitant means two unrelated persons living together for a substantial period of time, resulting in some permanency of relationship. Factors that may determine whether persons are cohabiting include, but are not limited to:

1. Sexual relations between the parties while sharing the same living quarters
2. Sharing of income or expenses
3. Joint use or ownership of property
4. Whether the parties hold themselves out as husband and wife
5. The continuity of the relationship
6. The length of the relationship

Dating Violence

Dating violence is a form of sexual violence and is abuse committed by a person who is, or has been, in a social or dating relationship of a romantic or intimate nature with the victim. This may include someone the victim just met; for example, a person they met at a party, were introduced to through a friend, or met on a social networking website.

Stalking

Stalking means a repeated course of conduct directed at a specific person (when based on gender or sex) that places that person in reasonable fear for his/her or others' safety, or to suffer substantial emotional distress.

Policies and Regulations

- Board Policy P-2423: Discrimination and Harassment Procedures (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/equal-opportunity-equity-discrimination-and-harassment/shared/doc/policies/board/P-2423.pdf)
- Administrative Regulation R-2423: Discrimination and Harassment Procedures (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/equal-opportunity-equity-discrimination-and-harassment/shared/doc/board/regulations/R-2423.pdf)
- Administrative Regulation R-2423.5: Interim Title IX Guidelines (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/equal-opportunity-equity-discrimination-and-harassment/shared/doc/board/regulations/r-2423-5.pdf)

Resources

For issues regarding sexual harassment and assault, the following resources are available:

- Los Rios Police, (916) 558-2221
- WEAVE Confidential Advocate, (916) 568-3011 or WEAVE@losrios.edu
- Hannah Blodgett, MPPA, Title IX Coordinator, (916) 484-8456 or BlodgeH@arc.losrios.edu

Types of Harassment

It is a priority of American River College to prevent and respond to all forms of harassment, including bullying, psychological harassment, racial harassment, religious harassment, stalking, mobbing, hazing, and backlash.

Bullying

Bullying is physical and psychological harassing behavior perpetrated against an individual, by one or more persons. Bullying can occur on the playground, in school, on the job, or any other place.

Workplace bullying is repeated, health-harming mistreatment of one or more persons (the targets) by one or more perpetrators that takes one or more of the following forms:

- Verbal abuse
- Offensive conduct/behaviors (including nonverbal) which are threatening, humiliating, or intimidating
- Work interference (sabotage) which prevents work from getting done

Psychological Harassment

Psychological harassment is humiliating or abusive behavior that lowers a person's self-esteem or causes them torment. This can take the form of verbal comments, actions, or gestures. Workplace mobbing is considered psychological harassment.

Racial Harassment

Racial harassment is the targeting of an individual because of their race or ethnicity. The harassment includes words, deeds, and actions that are specifically designed to make the target feel degraded due to their race of origin or ethnicity.

Religious Harassment

Religious harassment is verbal, psychological, or physical harassment used against targets because they choose to practice a specific religion. Religious harassment can also include forced and involuntary conversions.

Stalking

Stalking is the unauthorized following and surveillance of an individual, to the extent that the person's privacy is unacceptably intruded upon and the victim fears for their safety.

Mobbing

Mobbing is violence committed directly or indirectly by a loosely affiliated and organized group of individuals to punish or even execute a person for an alleged offense without a lawful trial. The "offense" can range from a serious crime, like murder to simple expression of ethnic, cultural, or religious attitudes. The issue of the victim's actual guilt or innocence is often irrelevant to the mob, since the mob relies on contentions that are unverifiable, unsubstantiated, or completely fabricated.

Hazing

Hazing is persecuting, harassing, or torturing in a deliberate, calculated, planned manner. Typically the targeted individual is a subordinate, for example, a fraternity pledge, a first-year military cadet, or somebody who is considered "inferior" or an "outsider." Hazing is illegal in many instances.

Backlash

Backlash or "victim blaming" occurs when the harasser or other people in the environment blame the victim for the harassment or the resulting controversies and conflicts after the harassment is reported or discovered.

Backlash results when people erroneously believe the victim could stop the harassment if they really tried, or that the victim must have done something to cause the harassment. The victim may be accused of trying to get attention, covering for incompetence, or in cases where the harassment is proven, lying about the extent of the effects.

Outdated attitudes about certain kinds of harassment remain and there is often social pressure for victims to keep quiet about abuse or suffer the consequences.

Discrimination and Harassment Complaint Procedures

How to File a Complaint

To file a complaint, fill out a Discrimination Complaint Form (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/equal-opportunity-equity-discrimination-and-harassment/shared/doc/legal/discrimination-complaint-form.pdf) and submit it to your equity officer. This form *is not required* and a complaint will not be rejected based on failure to use the form.

For more information or to file a complaint, contact the American River College Equity Officer at arc-equity@arc.losrios.edu.

Complaint Resolution

If it is determined that misconduct occurred, then American River College will take immediate steps to halt misconduct and remedy any effects of that misconduct.

An equity officer will hold an informal conference if the complainant wants to try and resolve the complaint informally. The equity officer will provide information about applicable laws and rules. If an informal resolution is not reached or if the complainant disagrees with the recommendation made, then the complainant may engage in a formal resolution process.

Regulations

- Administrative Regulation R-2423: Discrimination and Harassment Complaint Procedures (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/equal-opportunity-equity-discrimination-and-harassment/shared/doc/board/regulations/R-2423.pdf)
- Administrative Regulation R-2423.5: Interim Title IX Guidelines (https://arc.losrios.edu/2026-2027-official-catalog/while-you-are-here/equal-opportunity-equity-discrimination-and-harassment/shared/doc/board/regulations/r-2423-5.pdf)

Graduation and Transfer

Make a Plan for Transfer Success

Students who plan to transfer to the California State University (CSU) system, the University of California (UC) system, or to a private or out-of-state college or university should make an education plan with a counselor. This will ensure you meet the requirements for the specific institution you plan to attend.

Transfer eligibility is based on transferable college units and/or high school records and test scores. Each institution has its own admission requirements. To prepare for transfer:

1. Decide where you want to transfer
2. Talk to a counselor about that school's specific requirements
3. Create an education plan

Associate Degree Graduation Requirements

Students may graduate from American River College with an Associate of Arts (AA) or an Associate of Science (AS) degree by fulfilling the following requirements:

1. Satisfactory completion of 60 units of collegiate work with a "C" (2.0) grade point average (GPA) in a curriculum that the district accepts toward the degree. At least 12 of the 60 units must be earned within the Los Rios Community College District. Note the following regarding degree-applicable courses:
   - Courses numbered C1000 or higher that were taken in or after fall 2025 **are degree-applicable**.
   - Courses numbered 200 to 299 that were taken between fall 1989 and spring 2003 are **not degree-applicable**.
   - Courses numbered 1 to 99 or 1000 or higher that were taken after spring 2003 are **not degree-applicable**.
2. Completion of an AA or AS program of study (major) offered at American River College. Courses used to complete requirements for the major must be completed with a grade of "C" or better.
3. One of the following general education requirements:
   - Completion of American River College's Local AA/AS General Education requirements (https://arc.losrios.edu/2026-2027-official-catalog/graduation-and-transfer/associate-degree-graduation-requirements/local-aa-as-degree-general-education-requirements) with a minimum GPA of 2.0 in courses used for general education (24 units minimum).
   - Completion of the California General Education Transfer Curriculum (Cal-GETC) (https://arc.losrios.edu/2026-2027-official-catalog/graduation-and-transfer/preparing-to-transfer/california-general-education-transfer-curriculum-requirements).
   - Possession of a bachelor's degree (BA/BS) from a regionally accredited college or university in the US.1 Degrees from accredited institutions outside of the US will be evaluated on a case-by-case basis.
4. Students are allowed to follow the graduation requirements established at the time they began college as long as they maintain catalog rights (https://arc.losrios.edu/2026-2027-official-catalog/graduation-and-transfer/associate-degree-graduation-requirements#catalog-rights).

[1] See District Policy P-7241: Graduation Requirements (https://arc.losrios.edu/2026-2027-official-catalog/graduation-and-transfer/shared/doc/policies/board/P-7241.pdf) and Regulation R-7241: Graduation Requirements (https://arc.losrios.edu/2026-2027-official-catalog/graduation-and-transfer/shared/doc/board/regulations/R-7241.pdf).

Catalog Rights

For the purpose of graduating or earning a certificate from any college in the Los Rios Community College District, a student who attends at least one session (whether quarter, semester, or summer) in each calendar year at any California community college, California State University, University of California, or any regionally accredited institution of higher education, may choose to meet the requirements in effect at the Los Rios college from which the student intends to graduate, as follows:

- Requirements that were in effect at the time the student was admitted to a Los Rios college
- Requirements that were in effect at the time the student originally enrolled in an accredited college
- Requirements that were in effect at the intended date of graduation from a Los Rios college

Please note:

- Students with catalog rights prior to Fall 2025 can continue to follow the old local AA/AS GE pattern. Use the new local AA/AS GE requirements (https://arc.losrios.edu/catalog/local-ge) along with the new to old AA/AS GE mapping table (https://arc.losrios.edu/student-resources/counseling/cal-getc-and-general-education-guidance/mapping-new-to-old-local-general-education-requirements) to complete your general education requirements.
- A college may authorize or request substitution for discontinued courses.
- Students who change their major field of study may be required to complete those requirements for the major in effect at the point of change.
- For purposes of this section, "attendance" means taking classes in at least one session (semester or summer session) in each calendar year. Absence for attendance at another regionally accredited institution shall not be considered an interruption in attendance, per Los Rios Policy P-7242: Establishing Catalog Rights (https://arc.losrios.edu/2026-2027-official-catalog/graduation-and-transfer/shared/doc/policies/board/P-7242.pdf).

Local AA/AS Degree General Education Requirements

General education (GE) classes give you a broad foundation of knowledge and skills, but they're just one piece of what you need to earn your degree. You'll also need to complete major and elective coursework.

See our Associate Degree Graduation Requirements (https://arc.losrios.edu/catalog/associate-degree-graduation-requirements) to learn more about what you need to earn an associate degree at American River College.

L1: English Communication, Oral Communication, and Critical Thinking

Choose two courses for a minimum of six semester units (eight quarter units). Complete one course (three semester or four quarter units minimum) in each area.

Area	Courses
L1A: English Composition	BUS 310, ENGL C1000 (formerly ENGWR 300), ENGL C1000H (formerly ENGWR 480), ESLW 340
L1B: Oral Communication and Critical Thinking	COMM 302, COMM 311, COMM 331, COMM 361, COMM 362, COMM C1000 (formerly COMM 301), ENGL 301* (formerly ENGWR 301), ENGL 481* (formerly ENGWR 481), ENGL C1001 (formerly ENGWR 302), ENGL C1003* (formerly ENGWR 303), ENGL C1001H (formerly ENGWR 482), ENGRD 310, ESL 350*, MATH 320*, MGMT 360, PHIL 300*, PHIL 320, PHIL 324*, PSYC 335*, SOC 302*

* Courses appearing in more than one category may be used to satisfy *only one* category.

L2: Mathematical Concepts and Quantitative Reasoning

Choose one course for a minimum of three semester units (four quarter units).

Area	Courses
L2: Mathematical Concepts and Quantitative Reasoning	AT 105, BUS 105, CISP 300, CISP 350, CISP 360, CISP 400, CISP 401, CISP 440, CISP 480, ECON 310, GEOG 330, GEOG 375, MATH 300, MATH 309, MATH 310, MATH 320*, MATH 333, MATH 340, MATH 341, MATH 342, MATH 355, MATH 356, MATH 372, MATH 373, MATH 375, MATH 383, MATH 400, MATH 401, MATH 402, MATH 410, MATH 420, PHIL 324*, PSYC 330, STAT 309, STAT C1000 (formerly STAT 300), STAT C1000H (formerly STAT 480), WELD 140

* Courses appearing in more than one category may be used to satisfy *only one* category.

L3: Arts and Humanities

Choose one course for a minimum of three semester units (four quarter units).

Area	Courses
L3: Arts and Humanities	ANTH 330*, ANTH 341*, ART 300, ART 312, ART 320, ART 323, ART 324, ART 337, ART 339, ART 361, ART 370, ART 372, ART 390, ART 430, ART 440, ARTH 300, ARTH 308, ARTH 310, ARTH 318, ARTH 322, ARTH 333, ARTH 334, ARTH 335, ARTH C1100 (formerly ARTH 302), ARTNM 305, ARTNM 371, ARTPH 300, ARTPH 305, ARTPH 340, ARTPH 345, ARTPH 350, ARTPH 360, DEAF 310, DEAF 312, DEAF 314, DEAF 316, DEAF 318, DEAF 380, ECE 361, ECE 363, ENGCW 400, ENGCW 410, ENGCW 415, ENGCW 420, ENGCW 430, ENGL 301* (formerly ENGWR 301), ENGL 481* (formerly ENGWR 481), ENGL C1003* (formerly ENGWR 303), ENGLT 300, ENGLT 304, ENGLT 308, ENGLT 310, ENGLT 311, ENGLT 320, ENGLT 321, ENGLT 327, ENGLT 330, ENGLT 334, ENGLT 335, ENGLT 338, ENGLT 340, ENGLT 341, ENGLT 345, ENGLT 360, ENGLT 365*, ENGLT 370, ENGLT 378, ENGLT 380, ENGLT 382, ENGLT 392, ENGLT 403, ENGLT 486, ESL 350*, FASHN 310, FASHN 330, GERM 401, GERM 402, GERM 411, GERM 412, HIST 300*, HIST 302*, HIST 305*, HIST 307*, HIST 308*, HIST 340*, HIST 341*, HIST 364*, HIST 365*, HIST 367*, HIST 373*, HIST 399*, HIST 480*, HIST 481*, HUM 300, HUM 301, HUM 310, HUM 320, HUM 326, HUM 330, IDES 310, IDES 312, ITAL 401, ITAL 402, ITAL 411, ITAL 412, MUFHL 300, MUFHL 308, MUFHL 310, MUFHL 311, MUFHL 315, MUFHL 321, MUFHL 330, MUFHL 400, MUFHL 401, MUFHL 410, MUFHL 411, PHIL 300*, PHIL 310, PHIL 315, PHIL 330, PHIL 331, PHIL 350, PHIL 360*, RLST 301, RLST 302, RLST 310, RLST 311, RLST 313, RUSS 401, RUSS 402, RUSS 411, RUSS 412, RUSS 413, RUSS 415, SPAN 362, SPAN 401, SPAN 402, SPAN 411, SPAN 412, SPAN 413, SPAN 415, SPAN 427, TA 300, TA 302, TA 303, TA 306, TA 350, TA 435, TAFILM 300, TAFILM 302, TAFILM 303, TAFILM 304, TAFILM 307, TAFILM 320

* Courses appearing in more than one category may be used to satisfy *only one* category.

L4: Social and Behavioral Sciences

Choose one course for a minimum of three semester units (four quarter units).

Area	Courses
L4: Social and Behavioral Sciences	ADMJ 300, ADMJ 302, ADMJ 304, ADMJ 320, ANTH 310, ANTH 320, ANTH 321, ANTH 330*, ANTH 333, ANTH 334, ANTH 335, ANTH 336, ANTH 337, ANTH 341*, ANTH 370*, ANTH 481, BUS 300, BUS 320*, BUS 330, COMM 325, COMM C1004* (formerly COMM 321), DEAF 351, DEAF 352, DEAF 355, ECE 312*, ECE 314*, ECE 325*, ECE 330*, ECE 430, ECON 305, ECON 320*, ECON C2001 (formerly ECON 304), ECON C2002 (formerly ECON 302), ENGLT 365*, ETHNS 300*, ETHNS 320*, ETHNS 330*, ETHNS 350*, ETHNS 360*, GEOG 310, GEOG 320, GEOG 322, GERON 303*, GERON 305*, GERON 306*, GLST 301, GLST 302, HCD 390*, HIST 300*, HIST 302*, HIST 305*, HIST 307*, HIST 308*, HIST 318, HIST 320, HIST 321, HIST 323, HIST 325, HIST 327, HIST 330, HIST 332, HIST 333, HIST 340*, HIST 341*, HIST 353, HIST 364*, HIST 365*, HIST 367*, HIST 373*, HIST 374, HIST 375, HIST 480*, HIST 481*, HIST C1001 (formerly HIST 310), HIST C1002 (formerly HIST 311), HIST C1001H (formerly HIST 483), HIST C1002H (formerly HIST 484), INDIS 351, INDIS 353, INDIS 355, IS 305, IS 310, IS 312, JOUR 310, JOUR 320, NATR 307, NUTRI 310, NUTRI 481, PHIL 360*, POLS 302, POLS 304, POLS 310, POLS 320, POLS 330, POLS 342, POLS 480, POLS C1000 (formerly POLS 301), POLS C1000H (formerly POLS 481), PSYC 305, PSYC 320, PSYC 335*, PSYC 340*, PSYC 354*, PSYC 356*, PSYC 361, PSYC 365*, PSYC 370*, PSYC 372*, PSYC 373*, PSYC 375*, PSYC 390*, PSYC 415, PSYC 481*, PSYC C1000 (formerly PSYC 300), PSYC C1000H (formerly PSYC 480), SJS 300, SJS 310, SOC 300, SOC 301, SOC 302*, SOC 309, SOC 318, SOC 321, SOC 325, SOC 335*, SOC 342*, SOC 350, SOC 480, SWCD 300 (formerly HSER 300), SWCD 330* (formerly HSER 330)

* Courses appearing in more than one category may be used to satisfy *only one* category.

L5: Natural Sciences

Choose one course for a minimum of three semester units (four quarter units).

Area	Courses
L5: Natural Sciences	ANTH 300, ANTH 303, ANTH 370*, ANTH 480, ASTR 310, ASTR 320, ASTR 330, ASTR 481, ASTR C1001 (formerly ASTR 300), BIOL 300, BIOL 301, BIOL 304, BIOL 305, BIOL 310, BIOL 332, BIOL 342*, BIOL 352, BIOL 370, BIOL 375, BIOL 400, BIOL 410, BIOL 415, BIOL 420, BIOL 430, BIOL 431, BIOL 440, BIOL 442, BIOL 482, BIOL C1000 (formerly BIOL 303), CHEM 305, CHEM 306, CHEM 309, CHEM 310, CHEM 338, CHEM 400, CHEM 401, CHEM 420, CHEM 421, CHEM 423, ENERGY 303, FT 304, GEOG 300, GEOG 305, GEOG 306, GEOG 307, GEOG 308, GEOG 331, GEOL 300, GEOL 305, GEOL 310, GEOL 320, GEOL 325, GEOL 330, GEOL 345, HEED 308, HORT 300, HORT 302, NATR 300, NATR 301, NATR 302, NATR 303, NATR 304, NATR 305, NATR 306, NATR 310, NATR 320, NATR 322, NATR 330, NATR 332, NATR 346, NUTRI 300*, NUTRI 302*, PHYS 310, PHYS 311, PHYS 350, PHYS 360, PHYS 410, PHYS 421, PHYS 431, PSYC 310

* Courses appearing in more than one category may be used to satisfy *only one* category.

L6: Ethnic Studies

Choose one course for a minimum of three semester units (four quarter units).

Area	Courses
L6: Ethnic Studies	ETHNS 300*, ETHNS 320*, ETHNS 330*, ETHNS 350*, ETHNS 360*

* Courses appearing in more than one category may be used to satisfy *only one* category.

L7: Living Skills

Choose one course from Area L7A and a minimum of two units from Area L7B, for a minimum of three semester units (four quarter units) total. This area can also be fulfilled by Military Service Credit (honorable or under honorable conditions) with basic training completed. Submit a copy of the DD214 to Admissions and Records as verification. Students whose majors have 45 or more units of required coursework are exempt from the L7: Living Skills requirement.

Area	Courses
L7A: Physical Education	ADAPT 310, ADAPT 314, ADAPT 316, ADAPT 324, ADAPT 330, ADAPT 332, ADAPT 335, ADAPT 337, ADAPT 338, ADAPT 495, ADAPT 499, DANCE 300, DANCE 301, DANCE 302, DANCE 304, DANCE 305, DANCE 306, DANCE 307, DANCE 310, DANCE 312, DANCE 313, DANCE 314, DANCE 315, DANCE 320, DANCE 321, DANCE 322, DANCE 323, DANCE 324, DANCE 326, DANCE 330, DANCE 332, DANCE 333, DANCE 334, DANCE 335, DANCE 340, DANCE 341, DANCE 342, DANCE 343, DANCE 344, DANCE 345, DANCE 348, DANCE 351, DANCE 352, DANCE 353, DANCE 354, DANCE 360, DANCE 361, DANCE 362, DANCE 363, DANCE 364, DANCE 377, DANCE 390, DANCE 401, DANCE 403, DANCE 406, DANCE 415, DANCE 416, DANCE 417, DANCE 430, DANCE 431, DANCE 432, DANCE 433, DANCE 495, DANCE 498, DANCE 499, FITNS 100, FITNS 101, FITNS 102, FITNS 302, FITNS 303, FITNS 304, FITNS 306, FITNS 307, FITNS 308, FITNS 310, FITNS 314, FITNS 316, FITNS 321, FITNS 324, FITNS 325, FITNS 326, FITNS 331, FITNS 332, FITNS 343, FITNS 344, FITNS 345, FITNS 346, FITNS 347, FITNS 348, FITNS 350, FITNS 351, FITNS 375, FITNS 380, FITNS 381, FITNS 384, FITNS 385, FITNS 386, FITNS 392, FITNS 393, FITNS 395, FITNS 396, FITNS 400, FITNS 414, FITNS 440, FITNS 441, FITNS 442, FITNS 443, FITNS 450, FITNS 495, FITNS 499, PACT 300, PACT 310, PACT 311, PACT 350, PACT 351, PACT 352, PACT 390, PACT 391, PACT 393, PACT 430, PACT 431, PACT 432, PACT 495, PACT 499, SPORT 300, SPORT 301, SPORT 311, SPORT 312, SPORT 313, SPORT 314, SPORT 316, SPORT 317, SPORT 320, SPORT 325, SPORT 328, SPORT 330, SPORT 331, SPORT 332, SPORT 350, SPORT 351, SPORT 355, SPORT 356, SPORT 358, SPORT 365, SPORT 366, SPORT 370, SPORT 375, SPORT 376, SPORT 377, SPORT 380, SPORT 385, SPORT 386, SPORT 390, SPORT 395, SPORT 396, SPORT 403, SPORT 405, SPORT 406, SPORT 408, SPORT 410, SPORT 415, SPORT 416, SPORT 417, SPORT 495, SPORT 499, TMACT 300, TMACT 301, TMACT 302, TMACT 303, TMACT 304, TMACT 320, TMACT 330, TMACT 331, TMACT 333, TMACT 340, TMACT 495, TMACT 499
L7B: Life Development Skills	ACCT 498, ACT 298, ADMJ 498, AH 112, APPRT 298, APPRT 498, ART 498, ARTNM 498, ARTPH 375, ARTPH 498, AT 107, AT 298, BIOL 342*, BUS 312, BUS 320*, BUS 498, BUSTEC 298, CALJA 298, CARPT 298, CISC 498, COMM C1004* (formerly COMM 321), DANCE 498, DCDT 298, DESGN 298, DESGN 498, DRLTH 298, ECE 312*, ECE 314*, ECE 325*, ECE 330*, ECE 350, ECE 415, ECON 320*, ELECT 298, ELEVA 298, ELTRN 298, EMT 298, ENGED 320, ENGED 324, ENGED 325, ET 250, ET 298, FASHN 498, FSE 298, GEOG 498, GERON 303*, GERON 305*, GERON 306*, GERON 498, HCD 111, HCD 114, HCD 122, HCD 310, HCD 318, HCD 330, HCD 331, HCD 336, HCD 382, HCD 390*, HEED 300, HM 315, HM 498, HORT 298, HSER 498, HVACR 298, IDES 498, INSTL 298, INSUL 298, IW 298, KINES 300, KINES 498, LA 498, LIBR 318, MKT 498, MUIVI 298, MUIVI 498, NATR 498, NUTRI 300*, NUTRI 302*, OE3 298, PLUMB 298, PMED 298, PSYC 340*, PSYC 342, PSYC 354*, PSYC 356*, PSYC 359, PSYC 365*, PSYC 370*, PSYC 372*, PSYC 373*, PSYC 375*, PSYC 390*, PSYC 400, PSYC 481*, RECR 498, ROOF 298, SCFLD 298, SGVT 300, SHME 298, SOC 335*, SOC 342*, STMFT 298, SWCD 330* (formerly HSER 330), SWCD 340 (formerly HSER 340), TA 498, WELD 150, WELD 298, WEXP 198, WEXP 298, WEXP 498

* Courses appearing in more than one category may be used to satisfy *only one* category.

General Education and Institutional Student Learning Outcomes

Philosophy

The primary function of education is to transmit from each generation to the next the knowledge and skills requisite to enlarge the comprehension of our place in the universe. General Education gives breadth to the college experience, enhances the ability to learn, and develops critical thinking skills.

American River College is committed to the principle of providing general education which includes: English Composition, Oral Communication and Critical Thinking, Mathematical Concepts and Quantitative Reasoning, Arts and Humanities, Social and Behavioral Sciences, Natural Sciences, Ethnic Studies, and Living Skills. All of these are basic and necessary to participate in and contribute to a balanced life in a democratic society that is diverse in its social, cultural, and educational backgrounds.

Description of General Education Areas and Alignment with Institutional Student Learning Outcomes

English Composition and Oral Communication and Critical Thinking *(6 units: 3 units each from (a) and (b))*

Courses in English composition, oral communication, and critical thinking are those that use and examine principles and guidelines of clear and logical thinking and communication.

1A. English Composition: Courses fulfilling this requirement must be baccalaureate-level and include expository and argumentative writing.

1B. Oral Communication and Critical Thinking: Courses fulfilling this requirement must be baccalaureate-level and include oral communication and critical thinking courses. Critical thinking courses develop an awareness of the relationship of language to logic, resulting in the ability to analyze, criticize, and advocate ideas, to reason inductively and deductively, and to identify the assumptions upon which particular conclusions depend.

Institutional Student Learning Outcomes Aligned with English Composition and Oral Communication and Critical Thinking

English Composition Component

- Utilize a variety of methods to communicate effectively.
- Use various technologies to collect information and solve problems.
- Critically evaluate information to develop informed perspectives on a variety of issues, problems, and challenges.

Oral Communication and Critical Thinking Component

- Critically evaluate information to develop informed perspectives on a variety of issues, problems, and challenges.
- For students earning degrees, demonstrate an understanding of basic content and methodology for the major areas of knowledge: arts and humanities, mathematics, natural sciences, and social sciences.

Mathematical Concepts and Quantitative Reasoning *(3 units minimum)*

Courses in mathematical concepts and quantitative reasoning develop students' abilities to draw conclusions from numerical information, use formal reasoning processes, practice computational skills, and apply mathematical concepts or formal reasoning to solve real-world problems. Courses fulfilling this requirement must be at least college-level and include mathematics and quantitative reasoning courses, including logic, statistics, computer programming languages, and related disciplines.

Institutional Student Learning Outcomes Aligned with Mathematical Concepts and Quantitative Reasoning

- Use various technologies to collect information and solve problems.
- For students earning degrees, demonstrate an understanding of basic content and methodology for the major areas of knowledge: arts and humanities, mathematics, natural sciences, and social sciences.

Arts and Humanities *(3 units minimum)*

Courses in the humanities study the cultural activities and artistic expressions of human beings. Such courses develop students' awareness of how people throughout the ages and in different cultures respond to themselves and the world around them in artistic and cultural creation and develop students' aesthetic understandings and abilities to make value judgments. This category includes introductory or integrative baccalaureate-level courses in the visual and performing arts, art history, foreign languages, literature, philosophy, religion, and related disciplines.

Institutional Student Learning Outcomes Aligned with Humanities

- Demonstrate skills and behaviors that contribute to inclusive and respectful communication of diverse ideas and beliefs.
- Critically evaluate information to develop informed perspectives on a variety of issues, problems, and challenges.
- Contribute to society using personal knowledge, resources, and skills.
- For students earning degrees, demonstrate an understanding of basic content and methodology for the major areas of knowledge: arts and humanities, mathematics, natural sciences, and social sciences.

Social and Behavioral Sciences *(3 units minimum)*

Courses in the social and behavioral sciences focus on people as members of society and develop awareness of the methods of inquiry used by the social and behavioral sciences. They stimulate critical thinking about the ways people act and have acted in response to their societies and promote appreciation of how societies and social subgroups operate. This category includes introductory or integrative baccalaureate-level courses in cultural anthropology, cultural geography, economics, history, political science, psychology, sociology, and related disciplines.

Institutional Student Learning Outcomes Aligned with Social and Behavioral Sciences

- Demonstrate skills and behaviors that contribute to inclusive and respectful communication of diverse ideas and beliefs.
- Utilize a variety of methods to communicate effectively.
- Work cooperatively and effectively with others.
- Use various technologies to collect information and solve problems.
- Critically evaluate information to develop informed perspectives on a variety of issues, problems, and challenges.
- For students earning degrees, demonstrate an understanding of basic content and methodology for the major areas of knowledge: arts and humanities, mathematics, natural sciences, and social sciences.

Natural Sciences *(3 units minimum)*

Courses in the natural sciences examine the physical universe, its life forms, and its natural phenomena, helping students appreciate and understand the scientific method and the relationships between science and other human activities. This category includes introductory or integrative baccalaureate-level courses in astronomy, biology, chemistry, general physical science, geology, meteorology, oceanography, physical geography, physical anthropology, physics, and other scientific disciplines.

Institutional Student Learning Outcomes Aligned with Natural Sciences

- Use various technologies to collect information and solve problems.
- Critically evaluate information to develop informed perspectives on a variety of issues, problems, and challenges.
- For students earning degrees, demonstrate an understanding of basic content and methodology for the major areas of knowledge: arts and humanities, mathematics, natural sciences, and social sciences.

Ethnic Studies *(3 units minimum)*

Courses in ethnic studies must be baccalaureate level and include courses in the four autonomous disciplines within Ethnic Studies or introductory courses that survey the four areas: (1) Black Studies, African American Studies, Africana Studies, (2) Native American Studies; (3) Chicano/a/x, Latino/a/x Studies/La Raza Studies; and (4) Asian American Studies.

Institutional Student Learning Outcomes Aligned with Ethnic/Multicultural Studies

- Demonstrate skills and behaviors that contribute to inclusive and respectful communication of diverse ideas and beliefs.
- For students earning degrees, demonstrate an understanding of basic content and methodology for the major areas of knowledge: arts and humanities, mathematics, natural sciences, and social sciences.

Living Skills *(3 units minimum)*

One physical education activity course (with ADAPT, DANCE, FITNS, PACT, SPORT, or TMACT designators) must be taken in this area, and a minimum of two (2) units from the other courses included in this category. Adapted physical education courses are available for students with documented physical disabilities. These Adapted courses will fulfill the graduation requirement.

Courses in this area may be selected from several different disciplines that help students acquire skills and knowledge to understand themselves as whole persons (integral to their environment). This category includes the study of courses that develop and maintain personal, social, physical, and emotional well-being. It is the intent that this area include such courses as health education, human sexuality, marriage and family, nutrition, and personal adjustment.

Institutional Student Learning Outcomes Aligned with Living Skills

- Demonstrate personal and professional readiness for career and/or academic advancement.
- Demonstrate skills and behaviors that contribute to inclusive and respectful communication of diverse ideas and beliefs.
- Utilize a variety of methods to communicate effectively.
- Work cooperatively and effectively with others.
- Use various technologies to collect information and solve problems.
- Critically evaluate information to develop informed perspectives on a variety of issues, problems, and challenges.

Petition for a Certificate

How to Petition for a Certificate of Achievement

Students can file a petition for a Certificate of Achievement using our online graduation petition form (https://apps.arc.losrios.edu/GraduationPetition). All requirements must be met by the end of the term in which you petition.

Requirements

To petition for a certificate, students must:

1. Know their catalog year. *Students typically follow the current catalog year. To use certificate requirements from an earlier catalog, you must have maintained catalog rights (https://arc.losrios.edu/2026-2027-official-catalog/graduation-and-transfer/petition-for-a-certificate#catalog-rights).*
2. Complete all certificate requirements with a minimum grade point average (GPA) of 2.0.

Required Documentation

The following must be on file in the Admissions and Records Office for a certificate petition to be processed:

- Official transcripts for all coursework applicable to the certificate completed outside of the Los Rios Community College District[#]
- Official copies of AP/IB/CLEP test scores, if applicable
- Official final transcripts will be required at the end of the semester for the final certificate evaluation
- Copy of any required competency tests, if applicable

Students must complete all certificate requirements by the end of the semester in which they petition for a certificate.

[#] *External coursework may require a petition for course substitution/waiver approval through the department and use towards your program.*

Petition Deadlines for 2026-2027

- Fall 2026: Friday, October 2, 2026
- Spring 2027: Friday, March 5, 2027
- Summer 2027: Friday, July 2, 2027

Approval or Denial

Final evaluations begin after final grades are posted at the end of each respective term/semester.

You will be notified via email if your petition is approved or denied.

If denied, then you will be notified of the missing requirements and advised to submit a new petition. If approved, then your certificate will be posted to your transcript within three to four months after the end of the semester.

All certificates will be mailed to the student's address on file. If you need an accommodation to pick up a certificate in person, then contact the Admissions and Records office.

Petition Semester	Petition Deadline	Approval/Denial Date	Mailed or Ready for Pick-Up
Summer	First Friday in July	Mid-November or December	Mid-February
Fall	First Friday in October	End of April	Mid-June
Spring	First Friday in March	Mid-September or October	Mid-November

Catalog Rights

For the purpose of graduating or earning a certificate from any college in the Los Rios Community College District, a student who attends at least one session (whether quarter, semester, or summer) in each calendar year at any California community college, California State University, University of California, or any regionally accredited institution of higher education, may choose to meet the requirements in effect at the Los Rios college from which the student intends to graduate, as follows:

- Requirements that were in effect at the time the student was admitted to a Los Rios college
- Requirements that were in effect at the time the student originally enrolled in an accredited college
- Requirements that were in effect at the intended date of graduation from a Los Rios college

Please note:

- Students with catalog rights prior to Fall 2025 can continue to follow the old local AA/AS GE pattern. Use the new local AA/AS GE requirements (https://arc.losrios.edu/catalog/local-ge) along with the new to old AA/AS GE mapping table (https://arc.losrios.edu/student-resources/counseling/cal-getc-and-general-education-guidance/mapping-new-to-old-local-general-education-requirements) to complete your general education requirements.
- A college may authorize or request substitution for discontinued courses.
- Students who change their major field of study may be required to complete those requirements for the major in effect at the point of change.
- For purposes of this section, "attendance" means taking classes in at least one session (semester or summer session) in each calendar year. Absence for attendance at another regionally accredited institution shall not be considered an interruption in attendance, per Los Rios Policy P-7242: Establishing Catalog Rights (https://arc.losrios.edu/2026-2027-official-catalog/graduation-and-transfer/shared/doc/policies/board/P-7242.pdf).

Certificate Programs

American River College offers two types of certificates:

Certificate of Achievement

The Certificate of Achievement certifies that a student has completed all required courses and is prepared to enter the career designated on their certificate. Certificate of Achievement programs are developed to provide vocational training for students who are not necessarily seeking a college degree. Certificates of Achievement require a grade of "C" or better in each course. Certificates of Achievement are noted on transcripts.

Departmental Certificate

Departmental Certificates (also known as Certificates under the program requirement) are intended to certify that students are prepared to meet specific occupational needs, upgrade skills, or advance in an existing career. A grade of "C" or better is required in each course leading to the Departmental Certificate. Departmental Certificates require 15.99 units or fewer.

Requirements

- A grade of "C" or better is required in each course leading to the Departmental Certificate.
- Departmental Certificates may require some or all units to be completed within Los Rios Community College District. Students should confirm requirements with the department.

Departmental Certificates are awarded by the department and do not appear on official transcripts.

Petition for a Degree

How to Petition for a Degree

Students can file a petition for a degree using our online graduation petition form (https://apps.arc.losrios.edu/GraduationPetition). Be prepared to fill out your personal information and each course that satisfies the general education areas and major requirements. All requirements must be met by the end of the term in which you petition.

Requirements

To petition for a degree, students must:

1. Know their catalog year*
2. Complete all degree requirements with a minimum grade point average (GPA) of 2.0
3. Complete at least 12 units toward the degree within the Los Rios Community College District (American River College, Cosumnes River College, Folsom Lake College, and Sacramento City College)

** Usually, students follow the catalog year from which they began and maintained enrollment or the current catalog year. If you have questions about your catalog year, then please consult the information about catalog rights (https://arc.losrios.edu/2026-2027-official-catalog/graduation-and-transfer/petition-for-a-degree#catalog-rights) or a counselor.*

Required Documentation

The following must be on file in the Admissions and Records Office for a degree petition to be processed:

- Official transcripts for all coursework applicable to the degree and completed outside of the Los Rios Community College District#
- Official copies of AP/IB/CLEP test scores, if applicable
- A copy of DD214-military discharge papers, or an official Joint Services Transcript (JST), if veteran desires credit for military units
- List of courses in progress if attending another college and official final transcripts will be required at the end of the semester for final degree evaluation
- Copy of any required competency tests, if applicable

Students must complete all degree requirements by the end of the semester in which they petition for a degree.

 # External coursework may require a petition for course substitution/waiver approval through the department and use towards your program.

Petition Deadlines for 2026-2027

- Fall 2026: Friday, October 2, 2026
- Spring 2027: Friday, March 5, 2027
- Summer 2027: Friday, July 2, 2027

Approval or Denial

Final evaluations begin after final grades are posted at the end of each respective term/semester.

You will be notified via email if your petition is approved or denied.

If denied, then you will be notified of the missing requirements and advised to submit a new petition. If approved, then your degree will be posted to your transcript within three to four months after the end of the semester.

All diplomas will be mailed to the student's address on file. If you need an accommodation to pick up your diploma in person, then please contact the Admissions and Records office.

Petition Semester	Petition Deadline	Approval/Denial Date	Mailed or Ready for Pick-Up
Summer	First Friday in July	Mid-November or December	Mid-February
Fall	First Friday in October	End of April	Mid-June
Spring	First Friday in March	Mid-September or October	Mid-November

Catalog Rights

For the purpose of graduating or earning a certificate from any college in the Los Rios Community College District, a student who attends at least one session (whether quarter, semester, or summer) in each calendar year at any California community college, California State University, University of California, or any regionally accredited institution of higher education, may choose to meet the requirements in effect at the Los Rios college from which the student intends to graduate, as follows:

- Requirements that were in effect at the time the student was admitted to a Los Rios college
- Requirements that were in effect at the time the student originally enrolled in an accredited college
- Requirements that were in effect at the intended date of graduation from a Los Rios college

Please note:

- Students with catalog rights prior to Fall 2025 can continue to follow the old local AA/AS GE pattern. Use the new local AA/AS GE requirements (https://arc.losrios.edu/catalog/local-ge) along with the new to old AA/AS GE mapping table (https://arc.losrios.edu/student-resources/counseling/cal-getc-and-general-education-guidance/mapping-new-to-old-local-general-education-requirements) to complete your general education requirements.
- A college may authorize or request substitution for discontinued courses.
- Students who change their major field of study may be required to complete those requirements for the major in effect at the point of change.
- For purposes of this section, "attendance" means taking classes in at least one session (semester or summer session) in each calendar year. Absence for attendance at another regionally accredited institution shall not be considered an interruption in attendance, per Los Rios Policy P-7242: Establishing Catalog Rights (https://arc.losrios.edu/2026-2027-official-catalog/graduation-and-transfer/shared/doc/policies/board/P-7242.pdf).

Commencement

American River College holds a commencement ceremony in May of each year, at the end of the spring semester. Students who meet and satisfy the graduation requirements during the prior summer term (August), prior fall semester (December), or during the spring semester may participate in the graduation commencement exercise. See Graduation Ceremony (https://arc.losrios.edu/commencement) for current ceremony details.

All students who are eligible for an associate degree must petition for graduation.

Preparing to Transfer

Make a Plan for Transfer Success

Students who plan to transfer to the California State University (CSU) system, the University of California (UC) system, or to a private or out-of-state college or university should make an education plan with a counselor. This will ensure you meet the requirements for the specific institution you plan to attend.

Transfer eligibility is based on transferable college units and/or high school records and test scores. Each institution has its own admission requirements. To prepare for transfer:

1. Decide where you want to transfer
2. Talk to a counselor about that school's specific requirements
3. Create an education plan

Transfer to a California State University

Transfer Requirements

A maximum of 70 transferable units completed at California community colleges can be applied to a baccalaureate degree. Coursework completed that exceeds the 70-unit maximum may be given "subject credit" after transfer. Consult with a counselor.

You may be eligible for transfer to the California State University (CSU) system after you complete the following at a California community college:

1. A minimum of 60 transferable units with a 2.0 grade point average*
2. One of the following general education requirements (check with a counselor to determine the appropriate pattern for the degree you are pursuing):
    - For students with catalog rights of Fall 2025 or later:
        - California General Education Transfer Curriculum (Cal-GETC) requirements (https://arc.losrios.edu/catalog/cal-getc)
    - For students with catalog rights before Fall 2025, one of the following:
        - CSU General Education (CSU GE) Breadth requirements (https://arc.losrios.edu/academics/programs-majors/catalog-archives/california-state-university-general-education-breadth-requirements), including areas A1, A2, A3, and B4
        - Intersegmental General Education Transfer Curriculum (IGETC) requirements (if you plan to continue following IGETC, then use the Cal-GETC requirements (https://arc.losrios.edu/catalog/cal-getc) along with the Cal-GETC to IGETC mapping table (https://arc.losrios.edu/student-resources/counseling/cal-getc-and-general-education-guidance/mapping-cal-getc-to-igetc) to complete your general education requirements)
        - Cal-GETC requirements (https://arc.losrios.edu/catalog/cal-getc)

In addition to general education and graduation requirements, we encourage you to complete lower-division preparatory courses for your major as required by the CSU to which you want to transfer. You can find lower-division major requirements at assist.org (https://assist.org), the official state-wide repository for transfer and course articulation information.

** GPA requirements are higher for campuses or majors that are impacted or more competitive. The minimum GPA for international or non-resident students is 2.4 instead of 2.0.*

Dual Admission to Community College and CSU

If you are enrolling in a California community college this fall, you may be eligible to apply for dual admission to a California State University. Visit the CSU Transfer Success Pathway (https://www.calstate.edu/apply/transfer/Pages/transfer-success-pathway.aspx) for more information. The agreement cycle (the window to apply) is August 1 through October 31.

CSU Application Dates and Deadlines

Priority application deadlines for CSU:

- For fall admission, the application period is October 1 to November 30 of the prior year.
- For spring admission, the application period is July 1 to August 31 of the prior year (spring 2027 only; future filing dates subject to change).

See Cal State Apply - Transfer (https://www.calstate.edu/apply/transfer) for more CSU transfer information and application deadlines.

Transfer to a University of California

Transfer Requirements

Students who plan to transfer to the University of California (UC) system must meet certain requirements.

A maximum of 70 UC-transferable units completed at California community colleges can be applied to a baccalaureate degree. Coursework completed that exceeds the 70-unit maximum may be given "subject credit" after transfer. Consult with a counselor.

Transfer Eligibility

Junior-Level Transfer

To be eligible for UC admission, ARC students must fulfill the following requirements:

1. Complete 60 semester (90 quarter) units of transferable college credit with a GPA of at least 2.4 (2.8 for nonresidents). No more than 14 semester (21 quarter) units – excluding units completed in winter, spring, and summer 2020 – may be taken "Pass/No Pass." *Exception: if your college/university only awards "Pass" credit, you are not subject to this limitation for your attendance at that institution.*
2. Complete the following seven-course pattern requirements:
    - Two transferable college courses (three semester units or four to five quarter units each) in English composition
    - One transferable college course (three semester units or four to five quarter units) in mathematical concepts and quantitative reasoning
    - Four transferable college courses (three semester units or four to five quarter units each) chosen from at least two of the following subject areas:
        - Arts and humanities
        - Social and behavioral sciences
        - Physical and biological sciences

Transfer Notes

- Students must also complete the lower-division preparatory courses for the major as required by the UC to which they want to transfer. Find lower-division major requirements at assist.org (https://assist.org), the official state-wide repository for transfer and course articulation information.
- Each course must be worth at least three semester or four quarter units.
- Students need to earn a grade of "C" or better in each course or a "Pass (P)" grade if "Pass" is equivalent to a "C" or better.
- AP exam scores of 3, 4, or 5 and IB Higher level exams passed with a 5 or higher may be used to meet portions of the seven-course breadth pattern for transfer students. *Exception: only one of the two English courses required can be satisfied by an AP exam score.*

To view additional transfer options and services, see the University of California Transfer Requirements (https://admission.universityofcalifornia.edu/counselors/preparing-transfer-students/transfer-requirements.html).

California General Education Transfer Curriculum (Cal-GETC)

When you complete the California General Education Transfer Curriculum (Cal-GETC) pattern (https://arc.losrios.edu/catalog/cal-getc), you partially fulfill the 60-unit requirement for transfer to UC and complete the lower division general education breadth requirements. You should request your Cal-GETC certification from the community college you last attended when your final transcript is sent to the UC campus.

The Cal-GETC is best if you have not yet chosen a major or a campus. Once you have selected a major, it is important to begin fulfilling any required preparatory classes for that major. This is especially true for professional or "high-unit" majors. If you are preparing for an engineering or a high-unit science major at a UC campus, then it is not advisable to use the Cal-GETC. Instead, you should concentrate on fulfilling the 60-unit admission requirement by completing lower division major preparation courses as well as the basic admission requirements listed above.

Helpful Hints

- Connect with a counselor regularly to monitor your transfer progress.
- Many courses other than the ones listed in the Cal-GETC will transfer to UC. The units from those other courses will count toward the 60 units required to transfer as a junior. Check the catalog for the transfer status of any course.
- Though transfers do not require an associate degree, it is easy to complete one while preparing to transfer. Learn about associate degree graduation requirements (https://arc.losrios.edu/catalog/associate-degree-graduation-requirements).
- Check with your counselor about other courses needed for your major. In many cases, it is to your advantage to complete all pre-major requirements as well as general education requirements before you transfer.

UC Application Dates and Deadlines

Priority application deadlines for UC:

- Fall quarter/semester application period is October 1 to November 30.
- Winter quarter/spring semester application period is July 1 through 31.

See UC Admissions – Applying as a Transfer Student (https://admission.universityofcalifornia.edu/how-to-apply/applying-as-a-transfer/) for more information and application deadlines for each UC campus.

Transfer to a Private or Out-of-State College

American River College's Counseling and Transfer Services can support you in evaluating transfer requirements and articulation agreements to many independent, private, or out-of-state colleges to which you want to transfer. Most four-year institutions give full credit for general education courses and other courses designated for transfer at community colleges. **The key is to start early so that you can develop a plan for your options.**

See ARC's Articulation Agreements (https://arc.losrios.edu/why-ARC/transfer-to-a-four-year-institution/articulation) for the most up-to-date information regarding courses that are considered comparable to many independent, private, and out-of-state colleges.

Association of Independent California Colleges and Universities (AICCU)

The Association of Independent California Colleges and Universities (AICCU) is made up of more than 80 independent, private non-profit colleges and universities in California. Many have unique and specific transfer requirements. Visit AICCU's Planning Ahead website (https://aiccu.edu/planning-ahead/) to learn more about their campuses.

Many AICCU colleges and universities offer guaranteed admission when you earn an Associate Degree for Transfer (ADT) from a community college. You can view a full list of AICCU ADT Participating Institutions (https://docs.google.com/spreadsheets/d/1KeCD7ObkPwqkHDXeazhcb4OmPlizW6GAGnDPIcZT5ZU/edit?gid=1283451677#gid=1283451677) and majors accepted.

Historically Black Colleges and Universities (HBCUs)

Historically Black Colleges and Universities (HBCUs) were created primarily to serve the higher education needs of the Black community, however, they are open to students of all ethnicities. HBCUs are located in the South and on the East Coast and award bachelor's degrees in many fields; many award master's and doctorate degrees as well. (Source: California Community Colleges Transfer Guarantee Pathways to HBCU (https://icangotocollege.com/hbcu-transfer-opportunities). To learn more about the History of HBCU campuses, please visit History of Black Higher Education in America (https://files.eric.ed.gov/fulltext/ED363247.pdf).)

Any California community college student with a GPA of 2.0 or higher (*note: certain partner HBCUs will require a higher GPA*) is guaranteed admission to all partner HBCU institutions using either of the following two options:

1. Complete an associate degree for transfer (ADT) using the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth pattern.
2. Complete a minimum of 30 UC or CSU units.

Resources

- HBCU: How to Qualify (https://icangotocollege.com/hbcu-transfer-opportunities)
- California Community Colleges HBCU Partner Schools (https://icangotocollege.com/hbcu-transfer-opportunities#hbcu_partner_list)
- Western Undergraduate Exchange (WUE) (https://www.wiche.edu/WUE/students) – The WUE is an agreement among the 16 member states and territories of the Western Interstate Commission for Higher Education (WICHE), through which over 160 participating public colleges and universities provide significant nonresident tuition savings for Western students. In addition, many out-of-state colleges participate in the WUE, which offers discounts to California students in certain majors. To learn more about WUE and eligibility, visit the WICHE's major/program search (https://www.wiche.edu/tuition-savings/wue/wue-savings-finder/) feature.

California General Education Transfer Curriculum Requirements

The California General Education Transfer Curriculum (Cal-GETC) is a general education pattern designed to make transferring from a California Community College to a California State University (CSU) or University of California (UC) easier and more efficient. Cal-GETC will be the only lower-division general education pathway for students with catalog rights of 2025-2026 and later pursuing an Associate Degree for Transfer (ADT) or planning to transfer to CSU or UC. Cal-GETC meets lower-division general education requirements at either a CSU or a UC without requiring students to take additional lower-division general education courses after they transfer. All courses must be completed with a grade of "C" or better.

2026-2027 Cal-GETC Requirements

1. English Communication

Choose one course (three units minimum) from each area for a minimum of nine semester units.

Area	Courses
1A. English Composition	ENGL C1000 (formerly ENGWR 300), ENGL C1000H (formerly ENGWR 480), ESLW 340
1B. Critical Thinking and Composition	ENGL C1001 (formerly ENGWR 302), ENGL C1001H (formerly ENGWR 482), ENGL C1003 (formerly ENGWR 303), ENGL 301* (formerly ENGWR 301), ENGL 481 (formerly ENGWR 481), ESL 350*
1C. Oral Communication	COMM C1000 (formerly COMM 301), COMM 361

* Courses may be used to satisfy *only one* Cal-GETC general education area.

2. Mathematical Concepts and Quantitative Reasoning

Choose one course for a minimum of three semester units.

Area	Courses
2. Mathematical Concepts and Quantitative Reasoning	ECON 310, MATH 300, MATH 309, MATH 333, MATH 340, MATH 341, MATH 342, MATH 355, MATH 356, MATH 372, MATH 375, MATH 383, MATH 400, MATH 401, MATH 402, MATH 410, MATH 420, PSYC 330, STAT C1000 (formerly STAT 300), STAT C1000H (formerly STAT 480), STAT 309

3. Arts and Humanities

Choose one course (three units minimum) from each area for a minimum of six semester units.

Area	Courses
3A. Arts	ARTH C1100 (formerly ARTH 302), ARTH 300, ARTH 308, ARTH 310, ARTH 318, ARTH 322, ARTH 333, ARTH 334, ARTH 335, ARTNM 305, ARTPH 345, FASHN 330, IDES 310, IDES 312, MUFHL 300, MUFHL 308, MUFHL 310, MUFHL 311, MUFHL 315, MUFHL 321, MUFHL 330, MUFHL 400, MUFHL 401, MUFHL 410, MUFHL 411, TA 300, TA 302*, TA 303*, TA 306, TA 350, TA 435, TAFILM 300, TAFILM 302, TAFILM 303, TAFILM 304, TAFILM 307, TAFILM 320
3B. Humanities	DEAF 314, DEAF 316, DEAF 318, DEAF 380, ENGL 301* (formerly ENGWR 301), ENGLT 300, ENGLT 304, ENGLT 308, ENGLT 310, ENGLT 311, ENGLT 320, ENGLT 321, ENGLT 327, ENGLT 330, ENGLT 334, ENGLT 335, ENGLT 338, ENGLT 340, ENGLT 341, ENGLT 345, ENGLT 360, ENGLT 365*, ENGLT 378, ENGLT 380, ENGLT 382, ENGLT 392, ENGLT 403, ENGLT 486, ESL 350*, GERM 401, GERM 402, GERM 411, GERM 412, HIST 300*, HIST 302*, HIST 305*, HIST 307*, HIST 308*, HIST 320*, HIST 321*, HIST 340*, HIST 341*, HIST 364*, HIST 365*, HIST 367*, HIST 373*, HIST 480*, HIST 481*, HUM 300, HUM 301, HUM 310, HUM 320, HUM 326, HUM 330, ITAL 411, ITAL 412, PHIL 300, PHIL 310, PHIL 315, PHIL 330, PHIL 331, PHIL 350, PHIL 360*, RLST 301, RLST 302, RLST 310, RLST 311, RLST 313, RUSS 402, RUSS 411, RUSS 412, RUSS 413, RUSS 415, SPAN 402, SPAN 411, SPAN 412, SPAN 413, SPAN 415, SPAN 427, TA 302*, TA 303*

* Courses may be used to satisfy *only one* Cal-GETC general education area.

4. Social and Behavioral Sciences

Choose two courses from different disciplines for a minimum of six semester units.

Area	Courses
4. Behavioral and Social Sciences	ADMJ 300, ADMJ 302, ADMJ 320, ANTH 310, ANTH 320, ANTH 330, ANTH 333, ANTH 334, ANTH 335, ANTH 336, ANTH 337, ANTH 341, ANTH 481, COMM 325, DEAF 351, DEAF 355, ECE 312, ECE 314, ECON C2001 (ECON 304), ECON C2002 (formerly ECON 302), ECON 305, ENGLT 365*, ETHNS 300*, ETHNS 320*, ETHNS 330*, ETHNS 350*, ETHNS 360*, GEOG 310, GEOG 320, GEOG 322, GERON 303, GERON 305, GERON 306, GLST 301, GLST 302, HIST C1001 (formerly HIST 310), HIST C1001H (formerly HIST 483), HIST 1002 (formerly HIST 311), HIST 1002H (formerly HIST 484), HIST 300*, HIST 302*, HIST 305*, HIST 307*, HIST 308*, HIST 318, HIST 320*, HIST 321*, HIST 323, HIST 325, HIST 327, HIST 330, HIST 332, HIST 333, HIST 340*, HIST 341*, HIST 353, HIST 364*, HIST 365*, HIST 367*, HIST 373*, HIST 374, HIST 375, HIST 480*, HIST 481*, IS 305, IS 310, IS 312, JOUR 310, JOUR 320, NATR 307, NUTRI 310, NUTRI 481, PHIL 360*, POLS C1000 (formerly POLS 301), POLS C1000H (formerly POLS 481), POLS 302, POLS 304, POLS 310, POLS 320, POLS 330, POLS 342, POLS 480, PSYC C1000 (formerly PSYC 300), PSYC C1000H (formerly PSYC 480), PSYC 305, PSYC 320, PSYC 340, PSYC 354, PSYC 356, PSYC 361, PSYC 365, PSYC 370, PSYC 372, PSYC 373, PSYC 375, PSYC 390, PSYC 481, SJS 300, SJS 310, SOC 300, SOC 301, SOC 302, SOC 309, SOC 318, SOC 321, SOC 325, SOC 342, SOC 350, SOC 480, SWCD 330 (formerly HSER 330)

* Courses may be used to satisfy *only one* Cal-GETC general education area.

5. Physical and Biological Sciences

Choose a minimum of two courses, with one from 5A. Physical Sciences and one from 5B. Biological Sciences; at least one of the two courses must include a laboratory component from 5C. For courses with separate lecture and laboratory, the lecture course must be completed before or concurrently with the related laboratory course.

Area	Courses
5A. Physical Science	ASTR C1001 (formerly ASTR 300), ASTR 310, ASTR 320, ASTR 330, ASTR 481^{+}, CHEM 305^{+}, CHEM 306^{+}, CHEM 309^{+}, CHEM 338^{+}, CHEM 400^{+}, CHEM 401^{+}, CHEM 420^{+}, CHEM 421^{+}, CHEM 423^{+}, GEOG 300, GEOG 305, GEOG 306, GEOG 307, GEOG 308, GEOL 300, GEOL 305, GEOL 310, GEOL 320, GEOL 325, GEOL 330, GEOL 345, PHYS 310, PHYS 311, PHYS 350^{+}, PHYS 360^{+}, PHYS 410^{+}, PHYS 421^{+}, PHYS 431^{+}
5B. Biological Science	ANTH 300, ANTH 303, ANTH 480, BIOL C1000^{+} (formerly BIOL 303), BIOL 300, BIOL 301, BIOL 304^{+}, BIOL 305^{+}, BIOL 310^{+}, BIOL 332^{+}, BIOL 342, BIOL 352, BIOL 370^{+}, BIOL 375, BIOL 400^{+}, BIOL 410^{+}, BIOL 415^{+}, BIOL 420^{+}, BIOL 430^{+}, BIOL 431^{+}, BIOL 440^{+}, BIOL 442^{+}, BIOL 482^{+}, HEED 308, NATR 301^{+}, NATR 302^{+}, NATR 320^{+}, PSYC 310
5C. Associated Lab Component	ANTH 301, ASTR C1001L (formerly ASTR 400), ASTR 481^{+}, BIOL C1000^{+} (formerly BIOL 303), BIOL 304^{+}, BIOL 305^{+}, BIOL 310^{+}, BIOL 332^{+}, BIOL 370^{+}, BIOL 400^{+}, BIOL 410^{+}, BIOL 415^{+}, BIOL 420^{+}, BIOL 430^{+}, BIOL 431^{+}, BIOL 440^{+}, BIOL 442^{+}, BIOL 482^{+}, CHEM 305^{+}, CHEM 306^{+}, CHEM 309^{+}, CHEM 338^{+}, CHEM 400^{+}, CHEM 401^{+}, CHEM 420^{+}, CHEM 421^{+}, CHEM 423^{+}, GEOG 301, GEOG 309, GEOL 301, GEOL 306, GEOL 311, GEOL 331, NATR 301^{+}, NATR 302^{+}, NATR 320^{+}, PHYS 312, PHYS 350^{+}, PHYS 360^{+}, PHYS 410^{+}, PHYS 421^{+}, PHYS 431^{+}, PSYC 311

$^{+}$ Courses may be counted in both Cal-GETC general education areas.

6. Ethnic Studies

Choose one course for a minimum of three semester units.

Area	Courses
6. Ethnic Studies	ETHNS 300*, ETHNS 320*, ETHNS 330*, ETHNS 350*, ETHNS 360*

* Courses may be used to satisfy *only one* Cal-GETC general education area.

US History, Constitution, and American Ideals

This is a **California State University (CSU) graduation requirement only** – it is not required for Cal-GETC certification. This two-course (six-unit) requirement may be met before or after transfer to the CSU and double-counted with the Cal-GETC coursework – complete Option 1 or Option 2 to fulfill this requirement.

Option	Courses
Option 1	Complete POLS C1000 (formerly POLS 301) or POLS C1000H (formerly POLS 481), plus one of the following: HIST C1001 (formerly HIST 310), HIST C1001H (formerly HIST 483), HIST 1002 (formerly HIST 311), HIST 1002H (formerly HIST 484), HIST 318, HIST 320, HIST 321, HIST 323, HIST 325, HIST 327, HIST 330, HIST 332, HIST 333
Option 2	Complete HIST C1001, HIST C1001H, or HIST 332, plus one of the following: HIST 333, HIST 340, HIST 341, POLS C1000 (formerly POLS 301), POLS C1000H (formerly POLS 481), POLS 304

Language Other Than English

Optional before transfer: The UC Language Other Than English requirement is **not part of Cal-GETC certification**. Students may complete it before transferring or after enrolling at a UC. Each UC campus has guidelines for the *Language Other Than English* requirement (https://admission.universityofcalifornia.edu/counselors/uc-graduation-requirements); please consult a counselor for guidance.

Transfer Degree Requirements

Associate degrees for transfer (also called ADTs or transfer degrees) are designed to provide a clear pathway for California community college students to California State University (CSU) degrees. California community college students who earn an associate degree for transfer are guaranteed admission with junior standing to select CSU campuses and are given priority admission consideration over other transfer students. Students who have completed a transfer degree in a major deemed similar to a CSU major can complete the remaining requirements at that CSU within 60 units after transfer. For more information, consult a counselor.

Visit the I Can Go to College (https://icangotocollege.com/) website to learn more.

Requirements for a Transfer Degree

Transfer degrees require the following:

1. Complete all required courses for a major with a grade of "C" or better (or "P" if taking a class Pass/No Pass).
2. Complete one of the following general education (GE) patterns (check with your counselor to determine the appropriate pattern for the degree you are pursuing):
    - For students with catalog rights of Fall 2025 and later:
        - California General Education Transfer Curriculum (Cal-GETC)
    - For students with catalog rights before Fall 2025
        - CSU GE Breadth Requirements
        - Intersegmental General Education Transfer Curriculum (IGETC) – CSU option
        - California General Education Transfer Curriculum (Cal-GETC)
3. Complete 60 CSU-transferable units. At least 12 of the 60 units must be earned within the Los Rios Community College District.

Foreign Coursework Note

Foreign coursework from non-United States regionally accredited institutions cannot be used to meet California General Education Transfer Curriculum (Cal-GETC) requirements, California State University General Education-Breadth requirements, Intersegmental General Education Transfer Curriculum (IGETC) requirements, and associate degree for transfer requirements. Though four-year universities may accept international courses, each transfer institution independently evaluates such courses.

Transfer Degrees at American River College

There are two types of transfer degrees: Associate of arts for transfer (AA-T) and associate of science for transfer (AS-T). American River College offers the following transfer degrees:

- AS-T in Administration of Justice
- AA-T in Anthropology
- AA-T in Art History
- AS-T in Biology 2.0
- AS-T in Business Administration 2.0
- AA-T in Communication Studies 2.0
- AS-T in Early Childhood Education for Transfer
- AA-T in Economics
- AA-T in Elementary Teach Education
- AA-T in Geography
- AS-T in Geology
- AA-T in Global Studies
- AA-T in History
- AA-T in Journalism and Mass Communications
- AA-T in Kinesiology
- AS-T in Mathematics 2.0
- AA-T in Music
- AS-T in Nutrition and Dietetics
- AA-T in Philosophy
- AA-T in Political Science
- AA-T in Psychology
- AA-T in Social Justice Studies: Race and Ethnicity
- AA-T in Social Justice Studies: Women, Gender, and LGBTQ Studies
- AA-T in Sociology
- AA-T in Spanish
- AA-T in Studio Art
- AA-T in Theatre Arts

Course Transferability and C-ID

Transferable Courses

Courses that can transfer to the University of California (UC) and/or California State University (CSU) systems are labeled as "Transferable" in the course details.

For questions about how specific courses transfer to particular institutions, students should consult a counselor.

Course Identification Numbering System (C-ID)

C-ID is a statewide system that identifies comparable courses across California community colleges, ensuring consistency in content, rigor, and student learning outcomes. A course with a C-ID number is equivalent to any other California community college course with the same designation and will be accepted at participating community colleges and CSU campuses. For example, **C-ID COMM 110** at American River College will be accepted at any other college offering a course with the same C-ID number.

To evaluate course transferability, students should consult a counselor and visit ASSIST.org (https://assist.org) to see how American River College courses apply to:

- Major requirements at CSU and UC campuses
- California General Education Transfer Curriculum (Cal-GETC) requirements

For private or out-of-state colleges, consult a counselor. An up-to-date list of American River College's C-ID-approved courses is available on California's Transfer and Articulation System (https://www.c-id.net) website.

Common Course Numbering

Starting in Fall 2025, California community colleges are adopting a Common Course Numbering (CCN) system (per AB 1111). This system assigns common course numbers for comparable courses across all community colleges in the state. The goal of CCN is to facilitate a smoother transfer of credits between colleges and four-year institutions.

CCN does not replace C-ID but works alongside it. While C-ID ensures statewide articulation agreements, CCN provides a more direct, standardized course mapping. C-ID designations will still be used and displayed to maintain alignment with transfer pathways.

Order Official Transcripts From American River College

Order Online

Official transcripts include **all coursework completed at all the Los Rios colleges**. Whether you attended American River College, Cosumnes River College, Folsom Lake College, Sacramento City College – or any combination of our colleges – you only need to submit **one transcript request to receive your entire Los Rios academic record**.

Current Students (https://www.parchment.com/sso/lrccd)

Alumni and Former Students (https://www.parchment.com/u/registration/104735997/account)

Delivery Options

Send transcripts to:

- Colleges and universities
- Employers
- Scholarship organizations
- Licensing agencies
- Yourself

Choose a delivery option:

Electronic PDF delivery: send secure electronic transcripts directly to recipients by email.

Mail delivery: mail paper transcripts to a physical address.

Campus pickup: order online and pick up your transcript at any main campus Admissions and Records office.

Hold Requests

You may place an order and request that we wait to release your transcript until:

- **Final grades are posted:** your transcript will be sent after grades are posted for the term in which you place your order.
- **Your degree/certificate is posted:** your transcript will be sent after your degree or certificate is officially awarded for the term in which you place your order.

Transcript Fees

Service	Cost
First official transcript	Free
Second official transcript	Free
Additional transcripts	$5 each

Requestor Responsibilities

Students and alumni requesting transcripts assume responsibility for the following:

- Providing the correct mailing address and/or email address.
- Ensuring the recipient accepts your chosen method of delivery.
- Ordering with enough time to meet the recipient's deadline.
- Following up with the recipient to ensure the order's arrival.

Special Transcript Requests

- **Older records (microfilm):** Students seeking older records maintained on microfilm may request them through the same online ordering system.
- **San Francisco College of Mortuary Science records:** Transcript requests for San Francisco College of Mortuary Science records are available through the same online ordering system.

Third-Party Authorization

Student records are protected by the Family Educational Rights and Privacy Act (FERPA). If a third party is picking up your transcripts, they must provide an authorization signed by you. Online requests that are automatically verified through eServices (or another automated authentication) are the exception to this rule.

Lost Transcripts

We are not responsible if your transcript is lost by the US Postal Service, FedEx, or the school or agency to which it was sent. We are also not responsible if you provide the wrong mailing address and your transcript is lost as a result. You will have to pay the normal fees for new transcript orders.

Unofficial Transcripts

Students may continue to access unofficial transcripts through eServices (https://ps.losrios.edu/student/signon.html), under **Academic Records**, then **View Unofficial Transcripts**.

Programs of Study

American River College offers associate degrees, certificates, and transfer opportunities, as well as courses in general education.

Degree Programs

Associate in Arts Degree (AA)

The Associate degree may be obtained by the completion of all required courses for a major (18 units or more) with grades of "C" or better in each course, fulfillment of general education requirements, satisfaction of competencies, and completion of sufficient electives to meet a minimum total of 60 units with a grade point average of 2.0 ("C" average). At least 12 units toward the degree must be completed within the Los Rios Community College District.

Associate in Science Degree (AS)

The Associate degree may be obtained by the completion of all required courses for a major (18 units or more) with grades of "C" or better in each course, fulfillment of general education requirements, satisfaction of competencies, and completion of sufficient electives to meet a minimum total of 60 units with a grade point average of 2.0 ("C" average). At least 12 units toward the degree must be completed within the Los Rios Community College District. An Associate in Science Degree includes all science, technology, engineering, and mathematics (STEM) disciplines and career education (CE) fields.

Associate in Arts for Transfer (AA-T) and Associate in Science for Transfer (AS-T)

The following are the Associate Degree for Transfer (ADT) student completion requirements (as stated in SB 1440 law):

1. Completion of a minimum of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following:
   A. One of the following general education (GE) patterns (check with your counselor to determine the appropriate pattern for the degree you are pursuing):
      - For students with catalog rights of Fall 2025 or later:
        - California General Education Transfer Curriculum (Cal-GETC)
      - For students with catalog rights before Fall 2025, one of the following:
        - CSU GE Breadth Requirements
        - Intersegmental General Education Transfer Curriculum (IGETC) – CSU option
        - California General Education Transfer Curriculum (Cal-GETC)

   B. A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
2. Obtainment of a minimum grade point average of 2.0. ADTs also require that students must earn a "C" or better (or "P" if taken Pass/No Pass) in all courses required for the major or area of emphasis.

At least 12 units toward the degree must be completed within the Los Rios Community College District.

Visit A Degree With A Guarantee: Associate Degree for Transfer (https://adegreewithaguarantee.com) to learn more.

Certificate Programs

American River College offers two types of certificates:

Certificate of Achievement

The Certificate of Achievement certifies that a student has completed all required courses and is prepared to enter the career designated on their certificate. Certificate of Achievement programs are developed to provide vocational training for students who are not necessarily seeking a college degree. Certificates of Achievement require a grade of "C" or better in each course. Certificates of Achievement are noted on transcripts.

Departmental Certificate

Departmental Certificates (also known as Certificates under the program requirement) are intended to certify that students are prepared to meet specific occupational needs, upgrade skills, or advance in an existing career. A grade of "C" or better is required in each course leading to the Departmental Certificate. Departmental Certificates require 15.99 units or fewer.

Requirements

- A grade of "C" or better is required in each course leading to the Departmental Certificate.
- Departmental Certificates may require some or all units to be completed within Los Rios Community College District. Students should confirm requirements with the department.

Departmental Certificates are awarded by the department and do not appear on official transcripts.

List of Degrees and Certificates

American River College offers degree and certificate options. Requirements are identified for each career and general education program. Students must complete the program requirements to earn the desired degree or certificate, regardless of the order of completion.

Accounting

Degree

- AA in Accounting

Certificates of Achievement

- Accounting
- Accounting Clerk
- Financial Services Apprenticeship
- Taxation

Administration of Justice

Degrees

- AS in Administration of Justice
- AS-T in Administration of Justice

Anthropology

Degrees

- AS in Anthropology
- AA-T in Anthropology

Apprenticeship

Degrees

- AA in Acoustical Installer Apprenticeship
- AA in Carpenter Apprenticeship
- AA in Drywall/Lathing Apprenticeship
- AA in Electrical Apprenticeship
- AA in Elevator Apprenticeship
- AA in Ironworkers Apprenticeship
- AA in Mill and Cabinet Maker Apprenticeship
- AA in Pile Driver Apprenticeship
- AA in Scaffold Erector Apprenticeship
- AA in Sheet Metal Apprenticeship
- AA in Sheet Metal Service Technician Apprenticeship
- AS in Millwright Apprenticeship
- AS in Plumbers/Pipefitters Apprenticeship
- AS in Refrigeration Service Technician Apprenticeship

Certificates of Achievement

- Acoustical Installer Apprenticeship
- Acoustical Installer Level I
- Acoustical Installer Level II
- Acoustical Installer Level III
- Carpenter Apprenticeship
- Carpenter Apprenticeship Level I
- Carpenter Apprenticeship Level II
- Carpenter Apprenticeship Level III
- Drywall/Lathing Apprenticeship
- Drywall/Lathing Level I
- Drywall/Lathing Level II
- Drywall/Lathing Level III
- Electrical Apprenticeship
- Electrical Apprenticeship Level I
- Electrical Apprenticeship Level II
- Electrical Apprenticeship Level III
- Electrical Apprenticeship Level IV
- Elevator Apprenticeship
- Elevator Apprenticeship Level I
- Elevator Apprenticeship Level II
- Elevator Apprenticeship Level III
- Elevator Apprenticeship Level IV
- Enterprise Software Engineering and Development Apprenticeship
- Hardwood Floor Layer Apprenticeship
- Insulator Apprenticeship
- Ironworkers Apprenticeship
- Ironworkers Apprenticeship Level I
- Ironworkers Apprenticeship Level II
- Ironworkers Apprenticeship Level III
- Mill and Cabinet Maker Apprenticeship
- Mill and Cabinet Maker Level I
- Mill and Cabinet Maker Level II
- Mill and Cabinet Maker Level III
- Millwright Apprenticeship
- Millwright Level I
- Millwright Level II
- Millwright Level III
- Office Modular Systems Apprenticeship
- Office Modular Systems Level I
- Pile Driver Apprenticeship
- Pile Driver Level I
- Pile Driver Level II
- Pile Driver Level III
- Plumbers/Pipefitters Apprenticeship
- Plumbers/Pipefitters Apprenticeship Level I
- Plumbers/Pipefitters Apprenticeship Level II
- Plumbers/Pipefitters Apprenticeship Level III
- Plumbers/Pipefitters Apprenticeship Level IV
- Pre-Apprenticeship
- Refrigeration Service Technician Apprenticeship
- Refrigeration Service Technician Apprenticeship Level I
- Refrigeration Service Technician Apprenticeship Level II
- Refrigeration Service Technician Apprenticeship Level III
- Refrigeration Service Technician Apprenticeship Level IV
- Scaffold Erector Apprenticeship
- Scaffold Erector Level I
- Scaffold Erector Level II
- Scaffold Erector Level III
- Sheet Metal Apprenticeship
- Sheet Metal Apprenticeship Level I
- Sheet Metal Apprenticeship Level II
- Sheet Metal Apprenticeship Level III
- Sheet Metal Apprenticeship Level IV
- Sheet Metal Service Technician Apprenticeship
- Sheet Metal Service Technician Apprenticeship Level I
- Sheet Metal Service Technician Apprenticeship Level II
- Sheet Metal Service Technician Apprenticeship Level III
- Sheet Metal Service Technician Apprenticeship Level IV
- Shingler

Certificates

- Green Technology Pre-Apprenticeship
- Infrastructure Pre-Apprenticeship
- Utilities Worker Pre-Apprenticeship

Art

Degrees

- AA in Art
- AA-T in Studio Art

Certificates of Achievement

- Freelance Photography
- Gallery Management

Certificate

- Sculpture

Art History

Degree

- AA-T in Art History

Art New Media

Degree

- AA in Art New Media

Certificates of Achievement

- 3D Modeling and Texturing
- 3D Rigging Technical Director
- 3D Technical Director
- Animation Certificate
- Art New Media: Illustration
- ARTNM: Character Design
- ARTNM: Commercial Illustration
- ARTNM: Web Design
- Graphic Design: Intern Artist
- Graphic Design: Junior Artist
- Graphic Design: Production Artist

ASL-English Interpreting

Degree

- AA in ASL-English Interpreter Preparation Program

Certificate of Achievement

- ASL-English Interpreter Preparation Program

Automotive Collision Technology

Degree

- AS in Automotive Collision Technology

Certificates of Achievement

- Automotive Claims Estimator
- Automotive Collision Technology
- Automotive Collision Technology-Refinish
- Automotive Collision Technology-Structural

Certificates

- Automotive Collision Technology-Non-Structural

Automotive Technology

Degrees

- AS in Automotive Analysis
- AS in Automotive Component Service Technician
- AS in Automotive Technology
- AS in Green Vehicle Technology

Certificates of Achievement

- Air Conditioning Service
- Automotive Analysis
- Automotive Component Service Technician
- Automotive Emissions Inspection and Repair Technician
- Automotive Powertrain Systems Remanufacturing
- Automotive Technology
- Extreme Tuner
- Green Vehicle Technology
- Parts and Service
- Small Engines
- Snap-On™ Certification
- Transmission Service
- Undercar Service

Certificates

- Automotive Brakes
- Automotive Suspension and Steering

Biology and Biotechnology

Degrees

- AS-T in Biology
- AS in Biotechnology

Certificate of Achievement

- Biotechnology

Biomedical Equipment Technology

Degree

- AS in Biomedical Equipment Technology

Certificate of Achievement

- Biomedical Equipment Technology

Business

Degrees

- AS-T in Business Administration 2.0
- AA in Entrepreneurship
- AA in General Business

Certificates of Achievement

- Business Information Worker
- Computer Applications for Small Business
- Cross-Cultural Conflict Resolution
- Entrepreneurship/Small Business Management
- General Business
- Marketing Essentials

Certificates

- Soft Skills for the Global Environment

Business Technology

Degrees

- AA in Administrative Professional

Certificates of Achievement

- Business Information Professional I
- Business Information Professional II
- Business Information Worker
- Law Office Clerical Assistant

Certificate

- Office Assistant

Communication

Degrees

- AA-T in Communication Studies 2.0

Computer Information Science

Degrees

- AS in CIS: Computer Networking Management
- AS in CIS: Computer Programming
- AS in CIS: Database Management
- AS in CIS: Information Technology Technician
- AA in CIS: Microcomputer Applications
- AS in Computer Science
- AS in Cybersecurity and Information Assurance

Certificates of Achievement

- Information Systems Security Management
- CIS: Computer Networking Management
- CIS: Computer Programming
- CIS: Database Management
- CIS: Microcomputer Applications
- CIS: PC Support
- Computer Information Security Essentials

- Cybersecurity and Information Assurance
- Cybersecurity and Information Security Administration
- Enterprise Mainframe System Administration
- Enterprise Software Engineering and Development Apprenticeship
- Internet Marketing
- Network Administration Essentials - Windows
- Web Developer
- Web Publishing (Front-End)

Dance

Degree

- AA in Dance

Deaf Culture and American Sign Language Studies

Degree

- AA in Deaf Culture and American Sign Language Studies

Certificate of Achievement

- Deaf Culture and American Sign Language Studies

Design & Engineering Technology

Degrees

- AA in Design Technology
- AS in Engineering Technology

Certificates of Achievement

- Design Technology
- Engineering Technology

Certificate

- CADD Operator - Entry Level

Diesel/Clean Diesel Technology

Degree

- AS in Diesel Technology

Certificates of Achievement

- Clean Diesel Hybrid Technology
- Clean Diesel Industrial
- Clean Diesel Management Systems
- Clean Diesel Technology
- Diesel Engine Technology
- Diesel Technology
- Light Duty Diesel Truck
- Preventive Maintenance

Early Childhood Education

Degrees

- AA in Early Childhood Education
- AS-T in Early Childhood Education for Transfer

Certificates of Achievement

- Associate Teacher
- Children with Disabilities and Developmental Differences Specialist
- Diversity, Equity, and Inclusion Specialist
- Infant and Toddler Specialist
- Master Teacher
- Site Supervisor
- Teacher

Economics

Degree

- AA-T in Economics

Education/Teaching

Degree

- AA in Liberal Studies for Elementary Teacher Education

Electrician Trainee Program

Certificate of Achievement

- Residential/Commercial Electrician Trainee

Electronics Technology

Degrees

- AS in Biomedical Equipment Technology
- AS in Electronic Systems Technology
- AS in Mechatronics

Certificates of Achievement

- Advanced Electronics and Telecommunications
- Biomedical Equipment Technology
- Digital Home Technology Integration
- Electronic Systems Technology
- Fiber Optics
- Mechatronics
- Robotics
- Telecommunication Specialist

Certificates

- Basic Electronics and Telecommunications
- Basic Mechatronics
- Soldering and Cabling

Emergency Medical Technology

Certificate

- Emergency Medical Technician (EMT)

Energy

Certificates of Achievement

- Solar Energy Systems Design, Estimation, and Sales
- Solar Energy Technology

Certificate

- Basic Solar

Engineering

Degrees

- AS in Civil Engineering
- AS in Electrical Engineering
- AS in Mechanical Engineering

English

Degree

- AA-T in English

English as a Second Language

Certificates of Achievement

- Advanced Proficiency Certificate in English as a Second Language
- Advanced-High Certificate in English as a Second Language
- Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Business Technology
- Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Computer Info Science
- Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Culinary Arts
- Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Early Childhood Education
- Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Health Sciences

Certificates

- Intermediate-High Proficiency in English as a Second Language

- Intermediate-Low Proficiency in English as a Second Language
- Intermediate-Mid Proficiency in English as a Second Language

Fashion

Degrees

- AA in Fashion Design
- AA in Fashion Merchandising

Certificates of Achievement

- Fashion Design
- Fashion Merchandising

Certificates

- Apparel Construction
- Fashion Entrepreneur
- Fashion Illustration
- Fashion Retailing Certificate
- Patternmaking and Draping
- Runway Design

Fire Technology

Degree

- AA in Fire Technology

Certificates of Achievement

- Fire Technology
- Firefighter Recruit Academy

Certificates

- Fire Inspector 1
- Fire Investigation 1A
- Fire Investigation 1B
- Fire Investigation 2A
- Fire Investigation 2B

Funeral Service Education

Degree

- AS in Funeral Service Education

General Education - Transfer

Certificate of Achievement

- Cal-GETC Certificate
- Honors Transfer

General Science

Degree

- AS in General Science

Geography and GIS

Degrees

- AS in Geographic Information Systems (GIS)
- AS in Geography
- AA-T in Geography

Certificate of Achievement

- Geographic Information Systems (GIS)

Geology

Degree

- AS-T in Geology

Gerontology

Degrees

- AA in Gerontology
- AA in Gerontology: Administrative
- AA in Gerontology: Advocacy and Social Policy
- AA in Gerontology: Case Management and Social Services
- AA in Gerontology: Geriatric Health Care

- AA in Gerontology: Recreation

Certificates of Achievement

- Gerontology: Administrative
- Gerontology: Advocacy and Social Policy
- Gerontology: Case Management and Social Services
- Gerontology: Geriatric Health Care
- Gerontology: Recreation

Certificates

- Senior Caregiver Specialist
- Social Service Designee

Global Studies

Degrees

- AA-T in Global Studies
- AA in International Studies

Healthcare Interpreting

Certificate of Achievement

- Healthcare Interpreting

History

Degree

- AA-T in History

Homeland Security

Certificate

- Homeland Security

Horticulture

Degrees

- AS in Horticulture
- AS in Landscape Design Technology

Certificates of Achievement

- Horticulture
- Landscape Design Technology

Certificates

- Floristry
- Horticulture Skills
- Landscape Design
- Plant Production
- Sustainable Landscaping

Hospitality Management

Degree

- AA in Hospitality Management: Culinary Arts/Restaurant Management

Certificates of Achievement

- Baking and Pastry
- Culinary Arts/ Restaurant Management
- Hospitality Management: Restaurant Management

Interdisciplinary Studies

Degrees

- AA in English Communication and Literature
- AA in History of the Creative Arts
- AA in Society and the Individual

Interior Design

Degree

- AA in Interior Planning and Design

Certificates of Achievement

- Para Professional Interior Planning and Design

Certificates

- Designed 4 Life
- Event Design Coordinator

- Green Building and Sustainable Design for Interiors
- Interior Retail Merchandising
- Sacramento Design History
- Universal Design

Journalism

Degrees

- AA in Journalism and Mass Communication
- AA-T in Journalism and Mass Communications

Kinesiology and Athletics

Degrees

- AA-T in Kinesiology
- AS in Physical Education
- AS in Sports Medicine

Management

Degrees

- AA in Management

Certificates of Achievement

- Conflict Management
- Leadership
- Management
- Project Management

Marketing

Degrees

- AA in Advertising and Sales Promotion
- AA in Marketing
- AA in Retail Management

Certificates of Achievement

- Marketing Essentials
- Retail Management (WAFC)

Mathematics & Statistics

Degrees

- AS in Mathematics
- AS-T in Mathematics

Music

Degrees

- AA in Commercial Music: Business
- AA in Commercial Music: Recording
- AA in Jazz Studies
- AA-T in Music
- AA in Music

Certificates of Achievement

- Commercial Music: Business
- Commercial Music: Recording
- Digital Audio Production
- Music Management and Promotion

Certificates

- Music Instructional Assistant
- Studio Jazz/Pop Voice Instructor
- Studio Music Instructor
- Studio Voice Instructor

Natural Resources

Degree

- AS in Environmental Conservation

Certificates of Achievement

- Environmental Conservation
- Environmental Conservation Technician (Fisheries)
- Environmental Conservation Technician (Sustainability)
- Environmental Conservation Technician (Vegetation)
- Environmental Conservation Technician (Wildlife)

Certificates

- Environmental Conservation Technician (Conservation/ Restoration)
- Environmental Conservation Technician (Forest/Rangeland)
- Environmental Conservation Technician (Water Resources)

Nursing and Allied Health

Degrees

- AS in LVN to RN Career Mobility
- AS in Pre-Health Occupations
- AS in Registered Nursing

Certificate of Achievement

- Licensed Vocational Nurse (LVN) 30-unit option

Certificates

- Certified Nurse Assistant
- Home Health Aide

Nutrition and Foods

Degree

- AS-T in Nutrition and Dietetics

Certificate of Achievement

- Dietary Manager/Dietary Service Supervisor

Paralegal Studies

Degree

- AA in Paralegal Studies

Certificates of Achievement

- Law Office Clerical Assistant
- Paralegal Studies

Paramedic

Degree

- AS in Paramedic

Certificate of Achievement

- Paramedic

Philosophy

Degree

- AA-T in Philosophy

Physics

Degrees

- AS in Physical Science/Mathematics
- AS-T in Physics

Political Science

Degrees

- AA in Political Science
- AA-T in Political Science

Psychology

Degrees

- AA in Psychology
- AA-T in Psychology

Real Estate

Degree

- AA in Real Estate

Certificate of Achievement

- Real Estate

Certificate

- Real Estate Sales

Recreation

Degree

- AA in Recreation

Respiratory Care

Degree

- AS in Respiratory Care

Social Justice Studies

Degrees

- AA-T in Social Justice Studies: Race and Ethnicity
- AA-T in Social Justice Studies: Women, Gender, and LGBTQ Studies

Social Science

Degree

- AA in Social Science

Social Work and Chemical Dependency

Degrees

- AA in Chemical Dependency Studies
- AA in Social Work

Certificates of Achievement

- Chemical Dependency Studies
- Mental Behavioral Health
- Social Work

Sociology

Degree

- AA-T in Sociology

Speech-Language Pathology

Degree

- AS in Speech-Language Pathology Assistant Program

Certificates of Achievement

- SLPA Core Curriculum
- SLPA Specialization: Adult Neurogenic
- SLPA Specialization: Early Intervention
- SLPA Specialization: School Age

Technical Communication

Certificates of Achievement

- Technical Communications

Theatre Arts

Degrees

- AA-T in Theatre Arts
- AA in Theatre Arts: Acting
- AA in Theatre Arts: Technical Production

Certificates of Achievement

- Acting
- Children's Theatre
- Costuming

Certificates

- Musical Theatre
- Theatre Production

Theatre Arts Film

Degree

- AA in Film

Certificate of Achievement

- Film

Welding Technology

Degree

- AS in Welding Technology

Certificates of Achievement

- Shielded Metal Arc Plate and Pipe
- Welding Metallurgy and Inspection (270 hours)
- Welding Technology

Certificates

- Gas Metal Arc and Flux Core Arc Welding Plate (252 hours)
- Gas Tungsten Arc Plate and Pipe Welding (180 hours)
- Pipe Welding
- Welding Equipment Maintenance and Blueprint Interpretation (234 hours)

World Languages

Degrees

- AA-T in Spanish
- AA in Language Studies

Description of Courses

Course Numbering

All courses at American River College are comprised of a subject code (sometimes called a course prefix or course designator), course number, and course title. Some courses also have a course type identifier and/or a course specialty identifier. Here are descriptions of each component:

Subject Code/Course Prefix/Course Designator

The subject code is an alphabetical abbreviation for the subject area, between two and five characters long. For example, **ENGL** is for English, and **ENGCW** is for English - Creative Writing.

Course Number

Course numbers are standardized two-, three-, or four-digit numbers. For example, 90, 300, and 1000 are course numbers. Course numbers can tell you important information about the course:

- Courses numbered 1 to 99 are developmental or basic skills courses. These courses are for credit but are not degree-applicable nor transferable to four-year institutions.
- Courses numbered 100 to 299 are degree-applicable[1] but are not transferable to four-year institutions.
- Courses numbered 300 to 499 are transferable to four-year institutions, meeting general education, major, and/or elective credit requirements.
- Courses numbered **C**1000 and above are transferable to four-year institutions, meeting general education, major, and/or elective credit requirements.
- Courses numbered 1000 and above (without a "C" in front of the course number) are not degree-applicable nor transferable to four-year institutions.

Course Type Identifier

Courses that have a "C" in front of their course number belong to the Common Course Numbering (CCN) system (https://arc.losrios.edu/2026-2027-official-catalog/programs-of-study/description-of-courses/course-numbering#ccn). For example, COMM **C**1000 is a CCN course, while COMM 302 is a local course.

Course Specialty Identifier

Some courses have additional characters at the end of their course number, such as:

- E = Embedded support
- H = Honors course
- L = Lab-only course
- S = Support Course

[1] Courses numbered 200 to 299 that were taken between fall 1989 and spring 2003 are not degree-applicable.

Example Courses

Example Course	Subject Code	Course Number	Course Type Identifier	Course Specialty Identifier
ENGL C1000H	ENGL = English	1000 = transferable to four-year institutions, meeting general education, major, and/or elective credit requirements	C = Common Course Number	H = Honors
STAT C1000E	STAT = Statistics	1000 = transferable to four-year institutions, meeting general education, major, and/or elective credit requirements	C = Common Course Number	E = embedded support
COMM C1000	COMM = Communications	1000 = transferable to four-year institutions, meeting general education, major, and/or elective credit requirements	C = Common Course Number	None

Example Course	Subject Code	Course Number	Course Type Identifier	Course Specialty Identifier
PSYC 330	PSYC = Psychology	330 = transferable to four-year institutions, meeting general education, major, and/or elective credit requirements	None	None
ENGWR 299	ENGWR = English Writing	299 = degree-applicable but not transferable to four-year institutions	None	None

Common Course Numbering

Starting in Fall 2025, California community colleges began adopting a Common Course Numbering (CCN) system (per AB 1111). This system assigns common course numbers for comparable courses across all community colleges in the state. The goal of CCN is to facilitate a smoother transfer of credits between colleges and four-year institutions.

ARC CCN Comparison Table

Compare old course data to new CCN course data for ARC.

COMM 301	COMM C1000	1259 Fall 2025
ENGWR 300	ENGL C1000	1259 Fall 2025
ENGWR 302	ENGL C1001	1259 Fall 2025
ENGWR 480	ENGL C1000H	1259 Fall 2025
ENGWR 482	ENGL C1001H	1259 Fall 2025
POLS 301	POLS C1000	1259 Fall 2025
POLS 481	POLS C1000H	1259 Fall 2025
PSYC 300	PSYC C1000	1259 Fall 2025
PSYC 480	PSYC C1000H	1259 Fall 2025
STAT 300	STAT C1000	1259 Fall 2025
STAT 480	STAT C1000H	1259 Fall 2025
ARTH 302	ARTH C1100	1269 Fall 2026
ASTR 300	ASTR C1001	1269 Fall 2026
ASTR 400	ASTR C1001L	1269 Fall 2026
BIOL 303	BIOL C1000	1269 Fall 2026
COMM 321	COMM C1004	1269 Fall 2026
HIST 310	HIST C1001	1269 Fall 2026
HIST 311	HIST C1002	1269 Fall 2026
HIST 483	HIST C1001H	1269 Fall 2026
HIST 484	HIST C1002H	1269 Fall 2026
ECON 302	ECON C2002	1269 Fall 2026
ECON 304	ECON C2001	1269 Fall 2026
ENGWR 303	ENGL C1003	1269 Fall 2026

Prerequisites, Corequisites, and Advisories

Enrollment Conditions

Many courses and educational programs have enrollment conditions, such as prerequisites, corequisites, or advisories on recommended preparation. These faculty-approved conditions are considered necessary and appropriate to ensure that students are adequately prepared to succeed in the course or educational program. It is the student's responsibility to meet all enrollment conditions.

Students may challenge a prerequisite requirement through the challenge process (https://arc.losrios.edu/2026-2027-official-catalog/programs-of-study/description-of-courses/prerequisites-corequisites-and-advisories#challenge).

Prerequisite

A prerequisite is a course that a student is **required** to take to demonstrate current readiness for enrollment in another course or educational program. For example, to take ENGWR 301, a student must have already completed ENGL C1000 (formerly ENGWR 300) with a grade of "C" or better.

Corequisite

A corequisite is a course that a student is **required** to take during the same semester as another course or before another course. For example, a student taking GEOL 301 (Physical Geology Laboratory) needs to take GEOL 300 (Physical Geology) at the same time or before taking GEOL 301.

Advisory

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

How to Verify English, Math, and Statistics Prerequisites to Register for Classes

Prerequisite checking is automatic for English, math, and statistics courses in the Los Rios Community College District; this means that eServices will only permit registration in these courses when a student has demonstrated that they have met the prerequisite using one of the methods below.

- If you have taken and passed the prerequisite course at a Los Rios College (ARC, CRC, FLC, or SCC), you are ready to register.
- If you have placed into a math or English course by receiving a placement at a Los Rios College, you are ready to register.
- If you are currently enrolled in one of the Los Rios prerequisite courses, you are okay to register. However, you must earn a 'C' or better, or you will be dropped from the higher level course before it begins.

Prerequisites are not automatically satisfied when students intend to use coursework completed outside of the Los Rios Community College District. See the section on Clearance Through Coursework Outside Los Rios (https://arc.losrios.edu/2026-2027-official-catalog/programs-of-study/description-of-courses/prerequisites-corequisites-and-advisories#outside-lrccd) for more information. **Note: Coursework that is in progress outside of Los Rios will not be accepted as proof of meeting a prerequisite.**

How to Verify Prerequisites or Corequisites in Any Course

Verifying Prerequisites

If you are enrolled in a course that has a prerequisite, then you must provide evidence that you have met the prerequisite. Supporting evidence includes:

- A **Los Rios transcript** that verifies that you have earned a "C" or better in the prerequisite course. Current Los Rios students may print an unofficial transcript in eServices (https://ps.losrios.edu/student/signon.html). Instructors also have access to this information on their roster if you took the prerequisite class within Los Rios since 2003 (prior course information cannot be viewed).
- Los Rios English and/or math **placement results**.

If you enroll in a course and do not meet the prerequisite, then the instructor must drop you from the course.

Verifying Corequisites

If you are enrolled in a course that has a corequisite, then you must provide evidence that you meet the corequisite requirement through one of the following:

- Your **personal class schedule** shows you are currently enrolled in the corequisite course.

- A **Los Rios transcript** that shows you have already completed the corequisite course.

How to Challenge Prerequisites or Corequisites

If you do not have the supporting evidence to verify a prerequisite or corequisite (https://arc.losrios.edu/2026-2027-official-catalog/programs-of-study/description-of-courses/prerequisites-corequisites-and-advisories#verify) but you believe that you should qualify to enroll in the course, then you may challenge a prerequisite or corequisite.

Criteria for challenging a prerequisite or corequisite include:

- You have knowledge or ability to succeed in the course with the prerequisite.
- The prerequisite course is not readily available.
- You believe that the prerequisite is discriminatory or being applied in a discriminatory manner.
- You believe that the prerequisite was established in violation of regulations and/or the established district-approved policy and procedures.

To challenge a prerequisite or corequisite:

1. Submit a Prerequisite Equivalency Form (https://arc.losrios.edu/2026-2027-official-catalog/programs-of-study/description-of-courses/arc/main/doc/ARC02-Admissions/ARC-Prerequisite-Equivalency.pdf) – along with any supporting documentation – to the instructional department (locations are listed on form) at least one week prior to the start of instruction.
2. Your challenge will be reviewed by the department's prerequisite challenge committee.
3. You will be informed in writing of the committee's determination within five working days of the review.

Math and English Prerequisite Clearance

Prerequisites for all 300-level mathematics courses (MATH and STAT) and English courses (ENGL, ENGWR, ENGED, and ENGCW) must be cleared before enrollment.

Automatic Clearance

You will be automatically cleared to enroll in a math or English class if:

- You are currently enrolled in the appropriate prerequisite course at a Los Rios college (you must earn a grade of "C" or better, or you will be automatically dropped from the higher-level course before the new semester begins).
- You have completed and passed the appropriate prerequisite course at a Los Rios college.
- You have been placed into the math or English course you want to add.

Math and English Clearance Through Outside Credit or Testing

If you completed the equivalent prerequisite course with a grade of "C" or better at a college or university that is on the Los Rios Math Prerequisite Clearance List (https://arc.losrios.edu/2026-2027-official-catalog/programs-of-study/description-of-courses/shared/doc/admissions-records/prerequisite/math-prerequisite-clearance-list.pdf) or English Prerequisite Clearance List (https://arc.losrios.edu/2026-2027-official-catalog/programs-of-study/description-of-courses/shared/doc/admissions-records/prerequisite/english-prerequisite-clearance-list.pdf) then:

- Submit unofficial transcripts (if not currently on file with the Admissions and Records office) or official AP/IB test results, accompanied by a completed Prerequisite Equivalency Form (https://arc.losrios.edu/2026-2027-official-catalog/programs-of-study/description-of-courses/arc/main/doc/ARC02-Admissions/ARC-Prerequisite-Equivalency.pdf) to placement@arc.losrios.edu. (Note: Coursework currently in-progress does not satisfy prerequisite requirements.)
- If verified through a transcript, then the external course will be posted as transfer credit on your unofficial transcript, which will clear enrollment for math courses. This process may take three to five business days, so plan ahead.

If you did not find your course on the approved equivalency lists above – but you believe you have the knowledge or ability to succeed in an English or math course through other college/university coursework (or other credentials) – then you may challenge the prerequisite via the challenge process (https://arc.losrios.edu/2026-2027-official-catalog/programs-of-study/description-of-courses/prerequisites-corequisites-and-advisories#challenge).

To Be Arranged Scheduling

Some or all of the class hours for courses may be offered using the "To Be Arranged" (TBA) course scheduling option. Please refer to the class schedule listing for sections of courses for specific TBA weekly or daily class hour requirements that may apply.

Course Prefixes

A

Prefix	Subject Name
ACCT	Accounting
ACT	Automotive Collision Technology
ADAPT	Adapted Physical Education
ADMJ	Administration of Justice
AH	Allied Health
ANTH	Anthropology
ART	Art
ARTH	Art History
ARTNM	Art New Media
ARTPH	Art Photography
ASTR	Astronomy
AT	Automotive Technology

B

Prefix	Subject Name
BIOL	Biology
BIOT	Biotechnology
BMET	Biomedical Equipment Technology
BUS	Business
BUSTEC	Business Technology

C

Prefix	Subject Name
CALJA	CAL-JACs Firefighter Apprenticeship
CARPT	Carpentry
CHEM	Chemistry
CISA	Computer Information Science – Applications
CISC	Computer Information Science – Core
CISD	Computer Information Sciences - Data
CISN	Computer Information Science – Networking
CISP	Computer Information Science – Programming
CISS	Computer Information Science – Security
CISW	Computer Information Science – Web

D

Prefix	Subject Name
DANCE	Dance
DCDT	Diesel/Clean Diesel Technology
DEAF	Deaf Culture and American Sign Language Studies
DESGN	Design and Engineering Technology
DRLTH	Drywall/Lathers

E

Prefix	Subject Name
ECE	Early Childhood Education
ECON	Economics
ELECT	Electrical Apprenticeship
ELEVA	Elevator
ELTRN	Electrician Trainee
EMT	Emergency Medical Technology
ENERGY	Energy
ENGCW	English – Creative Writing
ENGED	Education/Teaching
ENGL	English
ENGLT	English – Literature
ENGRD	English – Reading
ENGR	Engineering
ESL	English as a Second Language
ESLG	English as a Second Language – Grammar
ESLL	English as a Second Language – Listening
ESLLAB	English as a Second Language – Lab
ESLR	English as a Second Language – Reading
ESLW	English as a Second Language – Writing
ET	Electronics Technology

F

Prefix	Subject Name
FASHN	Fashion
FFS	Fire and Forestry Services
FIRE	Fire Technology
FITNS	Fitness
FSE	Funeral Service Education
FT	Fire Technology

G

Prefix	Subject Name
GENSCI	General Science
GEOG	Geography
GEOL	Geology
GERM	German
GERON	Gerontology

H

Prefix	Subject Name
HCI	Healthcare Interpreting
HCD	Human Career Development
HEED	Health Education
HIST	History
HLACT	Human Lactation
HLS	Homeland Security
HM	Hospitality Management
HORT	Horticulture
HUM	Humanities

I

Prefix	Subject Name
IDES	Interior Design
INDIS	Interdisciplinary Studies
INTRP	ASL-English Interpreting
IS	International Studies
ITAL	Italian
IW	Iron Workers

J

Prefix	Subject Name
JOUR	Journalism

K

Prefix	Subject Name
KINES	Kinesiology

L

Prefix	Subject Name
LIBR	Library
LRC	Learning Resource Center

M

Prefix	Subject Name
MATH	Mathematics and Statistics
MATHS	Mathematics Support
MGMT	Management
MKT	Marketing
MUFHL	Music – Fundamentals, History, and Literature
MUIVI	Music – Instrumental/Voice Instruction
MUP	Music – Performance
MUSM	Music – Specializations in Music

N

Prefix	Subject Name
NATR	Natural Resources
NURSE	Nursing
NUTRI	Nutrition

O

Prefix	Subject Name
OE3	Operating Engineers Apprenticeship

P

Prefix	Subject Name
PACT	Personal Activity
PHIL	Philosophy
PHYS	Physics
PLGL	Paralegal Studies
PLUMB	Apprenticeship – Plumbing
PMED	Paramedic
POLS	Political Science
PREAP	Pre-Apprenticeship
PROPTX	Property Tax
PSTC	Sacramento Regional Public Safety Training Center
PSYC	Psychology

R

Prefix	Subject Name
RC	Respiratory Care
RE	Real Estate
RECR	Recreation
RUSS	Russian

S

Prefix	Subject Name
SHME	Sheet Metal
SJS	Social Justice Studies
SLPA	Speech-Language Pathology
SMTEC	Sheet Metal Technology
SOC	Sociology
SOCSC	Social Science
SPAN	Spanish
SPORT	Sports
SPEECH	Speech Communication
STAT	Statistics
SWCD	Social Work and Chemical Dependency

T

Prefix	Subject Name
TA	Theatre Arts
TAFILM	Theatre Arts Film
TAP	Theatre Arts Performance
TMACT	Team Activity

W

Prefix	Subject Name
WELD	Welding
WEXP	Work Experience

Cross-Listed Courses

When a course is listed under two (or more) different departments in the catalog, the course is referred to as "cross-listed," "cross-referenced," or "same as." The cross-listed course has identical content under both departments' catalog listing.

If two (or more) courses are cross-listed, then a student can only earn credit for one of those courses. Students who are not sure which cross-listed course they should enroll in are encouraged to consult with a 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.

Course Number	Cross-Listed Course	Additional Cross-Listed Course	Course Title
ACT 298	DCDT 298	N/A	Work Experience in Collision Technology
ART 306	ARTNM 320	N/A	Facial Expression and Anatomy
ART 314	ARTNM 370	N/A	Introduction to Illustration
ART 317	ARTNM 372	N/A	Character Design

Course Number	Cross-Listed Course	Additional Cross-Listed Course	Course Title
ARTH 335	ARTPH 345	N/A	Survey of Photography
ARTNM 320	ART 306	N/A	Facial Expression and Anatomy
ARTNM 370	ART 314	N/A	Introduction to Illustration
ARTNM 372	ART 317	N/A	Character Design
ARTPH 345	ARTH 335	N/A	Survey of Photography
AT 107	ET 250	WELD 150	Employability Skills for Technical Careers
AT 301	HORT 330	N/A	Small Gas Engines, Outdoor Power Equipment
BIOL 332	NATR 301	N/A	Introduction to Ornithology
BUS 320	ECON 320	N/A	Concepts in Personal Finance
BUSTEC 126	CISA 126	N/A	Outlook: Basics
BUSTEC 127	CISA 127	N/A	Outlook: Tools
CISA 126	BUSTEC 126	N/A	Outlook: Basics
CISA 127	BUSTEC 127	N/A	Outlook: Tools
CISA 160	MGMT 142	N/A	Project Management Techniques and Software
DCDT 200	AT 156	N/A	Light Duty Diesel/Green Diesel Technology
DCDT 201	AT 157	N/A	Advanced Light Duty Diesel/Green Diesel Technology
DCDT 298	ACT 298	N/A	Work Experience in Clean Diesel Technology
ECE 312	PSYC 372	N/A	Child Development
ECE 350	ENGED 324	N/A	Introduction to Elementary Teaching with Field Experience
ECE 415	NUTRI 320	N/A	Children's Health, Safety and Nutrition
ECON 320	BUS 320	N/A	Concepts in Personal Finance
ENERGY 303	NATR 303	N/A	Energy and Sustainability
ENGED 324	ECE 350	N/A	Introduction to Elementary Teaching with Field Experience
ET 250	AT 107	WELD 150	Employability Skills for Technical Careers
FASHN 334	TA 434	N/A	Vintage Costuming
GEOG 305	GEOL 320	N/A	Global Climate Change
GEOG 307	GEOL 325	N/A	Environmental Hazards and Natural Disasters
GEOG 308	GEOL 330	N/A	Introduction to Oceanography
GEOG 309	GEOL 331	N/A	Introduction to Oceanography Lab
GEOL 320	GEOG 305	N/A	Global Climate Change
GEOL 325	GEOG 307	N/A	Environmental Hazards and Natural Disasters
GEOL 330	GEOG 308	N/A	Introduction to Oceanography
GEOL 331	GEOG 309	N/A	Introduction to Oceanography Lab
GERON 305	PSYC 375	N/A	Introduction to Geropsychology and the Aging Brain

Course Number	Cross-Listed Course	Additional Cross-Listed Course	Course Title
HLACT 301	NURSE 391	N/A	Supporting the Mother-Baby Connection: Evidence-Based Practices for Perinatal Care
HORT 330	AT 301	N/A	Small Gas Engines, Outdoor Power Equipment
HSER 330	PSYC 365	N/A	Issues of Diverse Populations
HSER 340	PSYC 400	N/A	Introduction to Chemical Dependency
HSER 341	PSYC 401	N/A	Physiology and Pharmacology: Alcohol & Other Drugs
HSER 342	PSYC 402	N/A	Alcoholism: Intervention, Treatment & Recovery
KINES 402	NUTRI 307	N/A	Nutrition for Fitness
MATH 320	PHIL 324	N/A	Symbolic Logic
MGMT 142	CISA 160	N/A	Project Management Techniques and Software
MUP 370	TA 466	N/A	Rehearsal and Performance - Musical Ensemble
NATR 303	ENERGY 303	N/A	Energy and Sustainability
NURSE 391	HLACT 301	N/A	Supporting the Mother-Baby Connection: Evidence-Based Practices for Perinatal Care
NUTRI 307	KINES 402	N/A	Nutrition for Fitness
NUTRI 320	ECE 415	N/A	Children's Health, Safety and Nutrition
PHIL 324	MATH 320	N/A	Symbolic Logic
PSYC 365	HSER 330	N/A	Issues of Diverse Populations
PSYC 372	ECE 312	N/A	Child Development
PSYC 375	GERON 305	N/A	Introduction to Geropsychology and the Aging Brain
PSYC 400	HSER 340	N/A	Introduction to Chemical Dependency
PSYC 401	HSER 341	N/A	Physiology and Pharmacology: Alcohol & Other Drugs
PSYC 402	HSER 342	N/A	Alcoholism: Intervention, Treatment & Recovery
TA 434	FASHN 334	N/A	Vintage Costuming
TA 466	MUP 370	N/A	Rehearsal and Performance - Musical Ensemble
WELD 150	AT 107	ET 250	Employability Skills for Technical Careers

HomeBases

HomeBase Pathway Communities are dedicated and welcoming spaces where students pursuing related majors/programs have personalized access to a Success Team of counselors, peer mentors, coaches, and faculty liaisons. The Success Teams are committed to ensuring students get the support needed to complete their academic program while also enjoying a sense of community and belonging.

Still deciding on a major? Explore HomeBase Pathway Communities to learn more about your options.

Arts

Cultivate your creativity! Explore the arts and find a career aligned with your innate creative fire.

- Art
- Art History
- Art New Media
- Fashion
- Hospitality Management
- Interior Design
- Music
- Theatre Arts
- Theatre Arts Film
- Theatre Arts Performance

Business

Are you a go-getter? Do you aspire to be your own boss, or lead others? Are you innovative and seeking to influence change? Explore the Business HomeBase!

- Accounting
- Business
- Business Technology
- Economics
- Management
- Marketing
- Paralegal Studies
- Real Estate

Health and Education

Interested in what fuels our body and how it works? Every stage of life brings different needs. Explore the variety of programs and career options in the health and well being fields.

- Dance
- Early Childhood Education
- Emergency Medical Technology
- Funeral Service Education
- Gerontology
- Healthcare Interpreting
- Kinesiology and Athletics
- Nursing and Allied Health
- Nutrition and Foods
- Paramedic
- Recreation
- Respiratory Care
- Speech-Language Pathology

Language and Communication

Calling all writers, aspiring journalists, and those interested in languages! Explore careers in the field of language and communication.

- ASL-English Interpreting
- Communication
- Deaf Culture & ASL Studies
- English
- English as a Second Language
- Journalism
- World Languages

Manufacturing, Construction, and Transportation

Do you like to use strategic planning and problem solving to bring a project to life? The MCT HomeBase will provide you with the training and hands-on skills for in-demand careers across the manufacturing and construction fields.

- Automotive Collision Technology
- Automotive Technology
- Biomedical Equipment Technology
- Design and Engineering Technology
- Diesel/Clean Diesel Technology
- Electrician Trainee Program
- Electronics Technology
- Energy
- Horticulture
- Welding Technology

People, Culture, and Society

Feel the human connection, experience history and culture, and explore and embrace our differences in the People Culture and Society HomeBase.

- Anthropology

- Ethnic Studies
- Global Studies
- History
- Humanities and Religious Studies
- Philosophy
- Political Science
- Psychology
- Social Justice Studies
- Social Science
- Social Work and Chemical Dependency
- Sociology

Public Service

Are you passionate about creating safe and caring communities? A career in public service can present opportunities to build relationships, problem solve, and provide critical response to the community.

- Administration of Justice
- Fire Technology
- Homeland Security
- Regional Public Safety Training Center

Science, Technology, Engineering, and Mathematics (STEM)

With STEM, you can! Learn, create, and explore the career and degree options in science, technology, engineering, and math.

- Astronomy
- Biology and Biotechnology
- Chemistry
- Computer Information Science
- Engineering
- General Science
- Geography and GIS
- Geology
- Health Education
- Mathematics and Statistics
- Natural Resources
- Physics

List of Programs

Accounting

Overview

This degree focuses on preparation for careers in various accounting professions. It develops a common foundation in accounting and business, and provides various courses covering both fundamental and specialized accounting topics to meet individual career goals.

The Accounting certificate provides occupational training and preparation for entry-level clerical and technical positions in various accounting careers. It provides a strong background in fundamental accounting concepts and typical accounting computer applications. In addition, it provides various specialized accounting topics to meet career individual goals.

Degrees and Certificates Offered

A.A. in Accounting

Accounting Certificate

Accounting Clerk Certificate

Financial Services Apprenticeship Certificate

Taxation Certificate

Division Dean: Kirsten Corbin

Department Chair: Joel Halle

Phone: (916) 484-8361

Email: ARCBUSClerk@arc.losrios.edu

Associate Degree

A.A. in Accounting

This degree focuses on preparation for careers in various accounting professions. It develops a common foundation in accounting and business, and provides various courses covering both fundamental and specialized accounting topics to meet individual career goals.

Degree Requirements

Course Code	Course Title	Units
ACCT 103	Intermediate Accounting - Part I	4
ACCT 104	Intermediate Accounting - Part II	4
ACCT 107	Auditing	3
ACCT 111	Cost Accounting	3
ACCT 301	Financial Accounting	4
ACCT 311	Managerial Accounting	4
ACCT 361	Ethics, Fraud, and Legal Issues for Accountants	3
BUS 110	Business Economics (3)	3
or ECON C2002	Principles of Macroeconomics (3)	
A minimum of 8 units from the following:		8
ACCT 101	Fundamentals of College Accounting (3)	
ACCT 121	Payroll Accounting (3)	
ACCT 123	Federal and California Individual Income Taxation (4)	
or ACCT 125	Federal and State Individual Taxation (4)	
ACCT 128	Taxation of Corporations, Partnerships, Estates, and Trusts (4)	
ACCT 153	Governmental Accounting (3)	
ACCT 341	Computerized Accounting (3)	
ACCT 343	Computer Spreadsheet Applications for Accounting (2)	
or CISA 316	Intermediate Electronic Spreadsheets (2)	
PROPTX 310	Introduction to Appraising for Property Tax Purposes (1.5)	
PROPTX 311	Appraisal of Machinery & Equipment for Property Tax Purposes (1.5)	
Total Units:		**36**

The Accounting Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate and perform all steps in the financial accounting cycle.
- compile and analyze costs within a company.
- analyze and communicate appropriate information to managers, investors, creditors, and other interested parties utilizing a variety of reports.
- audit financial statements and express appropriate opinions on those statements.

- integrate the principles of business, business law, ethics, and economics into accounting functions.
- apply accounting standards and techniques to one or more specialized areas of accounting.

Career Information

This degree is designed for a variety of student objectives. It includes courses required for immediate employment in accounting positions. The courses meet the requirements of governmental employers for promotional exams. Students seeking transfer to four-year universities will meet the transfer requirements of financial accounting (ACCT 301) and managerial accounting (ACCT 311). Individuals with existing bachelor's degrees can also use these courses to meet the requirements to take the exam for Certified Public Accountant.

Certificates of Achievement

Accounting Certificate

This certificate provides occupational training and preparation for entry-level clerical and technical positions in various accounting careers. It provides a strong background in fundamental accounting concepts and typical accounting computer applications. In addition, it provides various specialized accounting topics to meet career individual goals.

Certificate Requirements

Course Code	Course Title	Units
ACCT 103	Intermediate Accounting - Part I	4
ACCT 104	Intermediate Accounting - Part II	4
ACCT 107	Auditing	3
ACCT 111	Cost Accounting	3
ACCT 301	Financial Accounting	4
ACCT 311	Managerial Accounting	4
ACCT 361	Ethics, Fraud, and Legal Issues for Accountants	3
BUS 110	Business Economics (3)	3
or ECON C2002	Principles of Macroeconomics (3)	
A minimum of 8 units from the following:		8
ACCT 101	Fundamentals of College Accounting (3)	
ACCT 121	Payroll Accounting (3)	
ACCT 123	Federal and California Individual Income Taxation (4)	
or ACCT 125	Federal and State Individual Taxation (4)	
ACCT 128	Taxation of Corporations, Partnerships, Estates, and Trusts (4)	
ACCT 153	Governmental Accounting (3)	
ACCT 341	Computerized Accounting (3)	
ACCT 343	Computer Spreadsheet Applications for Accounting (2)	
or CISA 316	Intermediate Electronic Spreadsheets (2)	
PROPTX 310	Introduction to Appraising for Property Tax Purposes (1.5)	
PROPTX 311	Appraisal of Machinery & Equipment for Property Tax Purposes (1.5)	
Total Units:		**36**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate and perform all steps in the financial accounting cycle.
- compile and analyze costs within a company.
- analyze and communicate appropriate information to managers, investors, creditors, and other interested parties utilizing a variety of reports.
- audit financial statements and express appropriate opinions on those statements.
- integrate the principles of business, business law, ethics, and economics into accounting functions.
- apply accounting standards and techniques to one or more specialized areas of accounting.

Career Information

This certificate includes courses required for immediate employment in accounting positions. The courses meet the requirements of governmental employers for promotional exams. Students seeking transfer to four-year universities will meet the transfer requirements of financial accounting (ACCT 301) and managerial accounting (ACCT 311). Individuals with existing bachelor's degrees can also use these courses to meet the requirements to take the Certified Public Accountant exam.

Accounting Clerk Certificate

This certificate provides fundamental occupational training and preparation for entry level accounting clerk positions. The program includes basic accounting and specialized courses designed for the accounting workplace, including small business accounting, technology, and basic business principles.

Certificate Requirements

Course Code	Course Title	Units
ACCT 121	Payroll Accounting	3
ACCT 341	Computerized Accounting	3
BUS 100	English for the Professional (3)	3
or ENGL C1000	Academic Reading and Writing (3)	
BUS 105	Business Mathematics	3
BUS 310	Business Communications	3
CISA 315	Introduction to Electronic Spreadsheets	2
A minimum of 2 units from the following:		2
ACCT 343	Computer Spreadsheet Applications for Accounting (2)	
BUSTEC 310	Introduction to Word/Information Processing (3)	
CISA 305	Beginning Word Processing (2)	
CISA 316	Intermediate Electronic Spreadsheets (2)	
A minimum of 3 units from the following:		3
ACCT 101	Fundamentals of College Accounting (3)	
ACCT 301	Financial Accounting (4)	
Total Units:		**22**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze and record accounting transactions
- prepare appropriate management reports
- process payroll and complete appropriate reports
- maintain small business records using accounting computer programs
- incorporate basic business and communication skills into the accounting workplace

Financial Services Apprenticeship Certificate

State of California Financial Services Apprenticeship for the occupations of Tax Examiners, Collectors, and Revenue Agents, Accountants, and Auditors. In this program, apprentices shall satisfactorily complete the prescribed related and supplemental instruction (RSI) identified in the Apprenticeship Standards (File No. 100451) developed by the JAC while receiving on-the-job training in the designated occupation.

Certificate Requirements

Course Code	Course Title	Units
ACCT 103	Intermediate Accounting - Part I	4
ACCT 104	Intermediate Accounting - Part II	4
ACCT 107	Auditing	3
ACCT 111	Cost Accounting	3
ACCT 301	Financial Accounting	4
ACCT 311	Managerial Accounting	4
BUS 100	English for the Professional	3
BUS 340	Business Law	3
ENGRD 315	Reading Across the Disciplines for Content Courses	0.5 -1
ENGL 95	Beginning Writing Across the Curriculum (WAC)	0.5
A minimum of 16 units from the following:		16
APPRT 498	Work Experience in Apprenticeable (Occupation) (0.5 - 6)	
Total Units:		**45 - 45.5**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- At least 18 years of age.
- Meets the requirements under the selection procedures of participating California state agencies.
- Engaged in learning a designated occupation and who has entered into a written apprentice agreement to participate in an apprenticeship program for a designated occupation under Department of Apprenticeship Standards' File No. 100451. Apprentice agreement must be approved by the apprenticeship committee.

Enrollment Process

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

- Apprentice selection process - Facilitated by the Joint Apprenticeship Committee (JAC): Application, aptitude assessment, interview with JAC and participating department, selection and confirmation, apprentice and department notification, signing ceremony.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe the components of the conceptual framework for financial accounting and reporting, including the qualitative characteristics of accounting information, the assumptions underlying accounting, the basic principles of financial accounting, and the constraints and limitations on accounting information.
- apply transaction analysis, input transactions into the accounting system, process this input, and prepare and interpret the four basic financial statements.
- define and illustrate various cost terms, concepts, and behaviors, and evaluate their relevance for different decision-making purposes.
- compare, contrast, and apply different costing methods.
- explain the purposes of budgeting, prepare a master budget and its component schedules, and relate the budget to planning and control.
- examine the role of cost accounting in business planning and decision-making.
- differentiate between, account for, and report product and period costs.
- use costs to make pricing and other types of business decisions.
- examine the concepts, principles, and practices of financial accounting, including discussion of Generally Accepted Accounting Principles (U.S. GAAP) and International Financial Reporting Standards (IFRS) on selected topics.
- prepare financial statements and related disclosures, including classified balance sheets, multiple step income statements with presentation of discontinued operations, extraordinary items, and accounting changes.
- analyze and account for complex business transactions.
- analyze the six principles of the American Institute of Certified Public Accountants (AICPA) Code of Professional Conduct.
- assess the various components of audit risk.
- evaluate the structure of audit working papers documentation.
- compare and contrast the three methods of documenting and assessing internal controls.
- identify, select, and use appropriate writing aids, references, and Internet resources used in business writing.
- prepare documents that exhibit a clear understanding of the essentials of sentence structure, word usage, punctuation, spelling, critical thinking, and business vocabulary.
- define and explain important legal principles and analyze how they affect business and personal issues.
- assess the reading process and materials to employ appropriate critical reading strategies.

Career Information

Training for the following California state occupations: (1) Tax Examiners, Collectors, and Revenue Agents, (2) Accountants, (3) Auditors.

Taxation Certificate

This certificate provides occupational training and education in the areas of individual and business income tax preparation and consulting. Courses in this program provide a background in individual, corporate, partnership, and estate taxes.

Certificate Requirements

Course Code	Course Title	Units
ACCT 123	Federal and California Individual Income Taxation (4)	4
or ACCT 125	Federal and State Individual Taxation (4)	
ACCT 128	Taxation of Corporations, Partnerships, Estates, and Trusts	4
ACCT 301	Financial Accounting	4
A minimum of 2 units from the following:		2
ACCT 121	Payroll Accounting (3)	
ACCT 341	Computerized Accounting (3)	
ACCT 343	Computer Spreadsheet Applications for Accounting (2)	
ACCT 498	Work Experience in Accounting (0.5 - 4)	
CISA 315	Introduction to Electronic Spreadsheets (2)	
PROPTX 310	Introduction to Appraising for Property Tax Purposes (1.5)	
PROPTX 311	Appraisal of Machinery & Equipment for Property Tax Purposes (1.5)	
Total Units:		**14**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- complete federal and California individual income tax returns.
- prepare federal and California corporate and partnership income tax returns.
- prepare federal estate, gift, and trust tax returns.
- research federal and state tax issues.
- identify elements to utilize for tax planning.

Accounting (ACCT) Courses

ACCT 101 Fundamentals of College Accounting

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Algebra I/Integrated Math 1 or Beginning Algebra AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This introductory course in small business accounting covers the accounting cycle for service and merchandising businesses. Topics include the general journal, the general and subsidiary ledgers, and adjusting, correcting, and closing journal entries. Income statements, statements of owner equity, balance sheets for service and merchandising businesses are prepared and analyzed. Additional topics include cash management and bank reconciliations, accounting for sales and purchase discounts, sales taxes, merchandise inventory, and payroll.

ACCT 103 Intermediate Accounting - Part I

Units: 4

Hours: 72 hours LEC

Prerequisite: ACCT 301 with a grade of "C" or better

This course continues the study and application of accounting principles and techniques used in preparing and reporting the financial results of business corporations. Areas of study include cash and receivables, inventory, long-term assets, and analysis of time value of money.

ACCT 104 Intermediate Accounting - Part II

Units: 4

Hours: 72 hours LEC

Prerequisite: ACCT 103 with a grade of "C" or better

This course continues the study and application of accounting principles and techniques used in preparing and reporting the financial results of business corporations. Areas of study include liabilities and contingencies, stockholders' equity and earnings per share, investments, revenue recognition, income taxes, pensions, leases, accounting changes and error analysis, and cash flows.

ACCT 107 Auditing

Units: 3

Hours: 54 hours LEC

Prerequisite: ACCT 104 with a grade of "C" or better

Advisory: Successful completion of Algebra I/Integrated Math 1 or Beginning Algebra AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course on auditing practice and theory emphasizes attestation audits of financial statements and the accompanying footnotes. Topics include Generally Accepted Auditing Standards (GAAS), ethics, legal issues, audit planning and methodology, internal control analysis, sampling, and auditors' reports. Additional topics include specific auditing objectives and tests of assets, liabilities, equity, revenues, and expenses.

ACCT 111 Cost Accounting

Units: 3

Hours: 54 hours LEC

Prerequisite: ACCT 311 with a grade of "C" or better

Advisory: CISA 315

This course covers advanced managerial accounting. Topics include recording, classifying, reporting, and analyzing costs as well as examining different costing systems. I focuses on understanding costs, appropriate accounting for them, and using them to analyze, plan, operate, and evaluate manufacturing, merchandising, and service businesses. It utilizes the industry-standard software, Excel, to do so.

ACCT 121 Payroll Accounting

Units: 3

Hours: 54 hours LEC

Prerequisite: ACCT 101 or 301 with a grade of "C" or better

This course covers the basic fundamentals and current practices in payroll processing, payroll accounting, and payroll tax reporting. Federal and state compliance pertaining to payroll processing and tax reporting will be studied. Topics include federal and state wage and hour laws and how they affect the payroll workflow.

ACCT 123 Federal and California Individual Income Taxation

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Advisory: ACCT 101 or 301 with a grade of "C" or better

This course covers basic Federal and California income tax regulations with an emphasis on the skills necessary for the preparation of individual income tax returns. Topics include filing requirements, determination of taxable income, allowable deductions, tax computation, tax credits, other taxes, payment methods, and audit procedures. This course is recommended for accounting majors but is not part of the California Tax Education Council (CTEC) program. As a result, this course does not meet the eligibility requirements for the California Registered Tax Return Preparer certificate.

ACCT 125 Federal and State Individual Taxation

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Advisory: ACCT 101 or 301; AND eligible for ENGRD 116; ENGWR 101; ESL 325

This course covers basic Federal and State Income Tax regulations with an emphasis on the skills necessary for the preparation of individual income tax returns. Topics include filing requirements, determination of taxable income, allowable deductions, tax computation, tax credits, other taxes, payment methods, and audit procedures.

ACCT 128 Taxation of Corporations, Partnerships, Estates, and Trusts

Units: 4

Hours: 72 hours LEC

Prerequisite: (ACCT 123 or ACCT 125) and 301

This course provides a continuing study of federal income tax compliance with an emphasis on the taxation of business entities including corporations, partnerships, limited liability companies, S-corporations, estates, and trusts. Topics include tax and non-tax characteristics of business entities, income tax filing requirements, differences in book and taxable income, selection of accounting methods and periods, tax computation, and available credits.

ACCT 153 Governmental Accounting

Units: 3

Hours: 54 hours LEC

Prerequisite: ACCT 301 with a grade of "C" or better

Advisory: BUS 105 or MATH 100 or 132

This course covers accounting and financial reporting for governmental units and institutions with emphasis on the accounting standards prescribed by the Governmental Accounting Standards Board (GASB). Additional topics include governmental budgeting and budgetary controls.

ACCT 295 Independent Studies in Accounting

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ACCT 299 Experimental Offering in Accounting

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

ACCT 301 Financial Accounting

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Advisory: ACCT 101; AND BUS 105 or successful completion of Algebra I/Integrated Math 1 or Beginning Algebra; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

C-ID: C-ID ACCT 110

This course covers accounting as an information system, examining why it is important and how it is used by investors, creditors, and others to make decisions. Topics include the accounting information system, including recording and reporting of business transactions with a focus on the accounting cycle, the application of generally accepted accounting principles, the financial statements, and statement analysis. It also covers issues relating to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls, and ethics.

ACCT 311 Managerial Accounting

Units: 4

Hours: 72 hours LEC

Prerequisite: ACCT 301 with a grade of "C" or better

Transferable: CSU; UC

C-ID: C-ID ACCT 120

This course covers how managers use accounting information in decision-making, planning, directing operations, and controlling. It focuses on cost terms and concepts, cost behavior, cost structure, and cost-volume-profit analysis. Topics include issues relating to cost systems, cost control, profit planning, and performance analysis in manufacturing, merchandising, and service environments.

ACCT 341 Computerized Accounting

Units: 3

Hours: 54 hours LEC

Prerequisite: ACCT 101 or 301 with a grade of "C" or better

Advisory: CISC 100 or 300

Transferable: CSU

This course covers major areas of computerized accounting systems for small businesses using QuickBooks Online (QBO). Topics include setting up a new company in QBO, creating a chart of accounts, banking, recording customer and vendor transactions, using QBO inventory tracking, paying employees, making adjusting entries, and generating financial and management reports for service and merchandising businesses. This course provides students with hands-on experience in using QBO and prepares students to take the Intuit QuickBooks Certified User certification exam.

ACCT 343 Computer Spreadsheet Applications for Accounting

Units: 2

Hours: 36 hours LEC

Prerequisite: ACCT 301 and CISA 315 with grades of "C" or better

Advisory: Successful completion of Algebra I/Integrated Math 1 or Beginning Algebra; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course combines the study of accounting and computer spreadsheets from basic Excel and accounting concepts to more advanced accounting work. It also provides students with hands-on practice and teaches Excel skills applicable in the real world of accounting. Topics include but are not limited to financial statements, inventory costing, bank reconciliation, depreciation schedule, payroll register, bond amortization, and financial ratio analysis.

ACCT 361 Ethics, Fraud, and Legal Issues for Accountants

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: ACCT 107 and 301

Transferable: CSU

This course explores ethics, fraud, and legal issues that must be addressed by accountants, including exploration through case studies. Topics in ethics include ethical foundations as well as the unique ethical requirements of professional organizations and the California Board of Accountancy. The course also examines the legal liability of accountants. A variety of case studies are evaluated to gain perspective into ethical lapses, fraud, and legal liability.

ACCT 495 Independent Studies in Accounting

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ACCT 498 Work Experience in Accounting

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses.Students are advised to consult with the Accounting Department faculty to review specific certificate and degree work experience requirements

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of accounting. 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 Title 5 required forms which document the student's progress and hours spent at the approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with the employer when the course is repeated. Only one Work Experience course may be taken per semester.

ACCT 499 Experimental Offering in Accounting

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Property Tax (PROPTX) Courses

PROPTX 310 Introduction to Appraising for Property Tax Purposes

Units: 1.5

Hours: 30 hours LEC

Prerequisite: None.

Advisory: Successful completion of Algebra I/Integrated Math 1 or Beginning Algebra; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course introduces the basic principles of property tax appraisal. It covers the economic aspects and legal definitions of market value, California Property Tax Laws and Regulations, the appraisal process, and methods of valuation. It is designed to meet the California Board of Equalization training requirements for county property tax appraisers.

PROPTX 311 Appraisal of Machinery & Equipment for Property Tax Purposes

Units: 1.5

Hours: 32 hours LEC

Prerequisite: None.

Advisory: PROPTX 110; AND successful completion of Algebra I/Integrated Math 1 or Beginning Algebra; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course covers the principles of property tax appraisal for tax assessment of personal property and fixtures. Topics include the economic aspects and legal definitions of market value, California Property Tax Laws and Regulations, the appraisal process, and methods of valuation. It is designed to meet the California Board of Equalization training requirements for county property tax auditor-appraisers and appraisers.

Administration of Justice

Overview

ARC's Administration of Justice program offers both Associate's and Associate's for Transfer degrees. The Associate's degree covers the prevention, discovery, control and treatment of crimes, criminals, and criminality. Students desiring to enter a career concerned with the administration of justice will find that this curriculum has flexibility that allows them to prepare for specific fields included in that broad category. The Transfer degree 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.

Degrees and Certificates Offered

A.S.-T. in Administration of Justice

A.S. in Administration of Justice

Homeland Security Certificate

Associate Dean: Charissa Gorre

Department Chair: Bill Wann

Phone: (916) 570-5000

Email: askhb-publicservice@arc.losrios.edu

Associate Degrees for Transfer

A.S.-T. in Administration of Justice

The Associate in Science in Administration of Justice for Transfer (AS-T) provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Criminal Justice and Criminology at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, Â§66746):
â€¢ 60 semester or 90 quarter CSU-transferable units
â€¢ the California General Education Transfer Curriculum (Cal-GETC) pattern
â€¢ a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district
â€¢ obtain a minimum grade point average (GPA) of 2.0

All ADTs also require that students must earn a â€œCâ€ or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Core:		
ADMJ 300	Introduction to Administration of Justice	3
ADMJ 320	Concepts of Criminal Law	3
List A:		
A minimum of 6 units from the following:		6
ADMJ 302	Community Relations: Multicultural Issues (3)	
ADMJ 304	Juvenile Delinquency (3)	
ADMJ 322	Criminal Procedures (3)	
ADMJ 323	Legal Aspects of Evidence (3)	
ADMJ 330	Criminal Investigation (3)	
ADMJ 340	Introduction to Correctional Services (3)	
List B:		
A minimum of 6 units from the following:		6
Any courses from List A not already used or		
ADMJ 301	Investigative Report Writing (3)	
ADMJ 309	Career Preparation for Law Enforcement Occupations (3)	
ADMJ 331	Patrol Procedures (3)	
PSYC C1000	Introduction to Psychology (3)	
or PSYC C1000H	Introduction to Psychology - Honors (3)	
PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
or ECON 310	Statistics for Business and Economics (3)	
or STAT C1000	Introduction to Statistics (4)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
POLS C1000	American Government and Politics (3)	
or POLS C1000H	American Government and Politics - Honors (3)	
SOC 300	Introductory Sociology (3)	
or SOC 480	Introductory Sociology - Honors (3)	
SOC 318	Introduction to Crime, Deviance, and Social Control (3)	
Total Units:		**18**

The Associate in Science in Administration of Justice 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 California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate various local, state, and federal law enforcement career options.
- research the law enforcement application and hiring processes.
- critique the ethical philosophy of the American justice system.
- analyze crime causation, criminal statutes and elements of particular crimes.
- describe the various levels of punishment and corrections.
- evaluate the legal aspects of criminal investigations, constitutional law, and case law.
- identify various controlled substances and interpret their impact on society and law enforcement.
- apply laws and procedures for the collection and use of evidence.
- identify ethical standards placed on law enforcement professionals.
- communicate effectively in written and oral formats.

Career Information

Police Officer; Deputy Sheriff; Crime Scene Investigator; Identification Technician; Community Services Officer; Corrections Officer; Parole Officer; Probation Officer and a variety of support service occupations. Potential employers include: Federal, State and local law enforcement agencies (Sheriff, Police, California Highway Patrol, Federal Bureau of Investigations, Drug Enforcement Administration, Department of Justice, Crime Scene Investigations, and California Department of Corrections and Rehabilitation).

Associate Degrees

A.S. in Administration of Justice

This degree covers the prevention, discovery, control and treatment of crimes, criminals, and criminality. Students desiring to enter a career concerned with the administration of justice will ï¬nd that this curriculum has ï¬‚exibility that allows them to prepare for speciï¬c ï¬elds included in that broad category. The program also provides courses to prepare students for transfer to a four-year institution. Opportunities for graduates include positions as federal and state parole ofï¬cers, probation ofï¬cers, and correctional administrators.

Degree Requirements

Course Code	Course Title	Units
ADMJ 300	Introduction to Administration of Justice	3
ADMJ 302	Community Relations: Multicultural Issues	3
ADMJ 304	Juvenile Delinquency	3
ADMJ 320	Concepts of Criminal Law	3
ADMJ 322	Criminal Procedures	3
ADMJ 323	Legal Aspects of Evidence	3
ADMJ 330	Criminal Investigation	3
A minimum of 3 units from the following:		3
ADMJ 301	Investigative Report Writing (3)	
ADMJ 309	Career Preparation for Law Enforcement Occupations (3)	
ADMJ 331	Patrol Procedures (3)	
ADMJ 340	Introduction to Correctional Services (3)	
Total Units:		**24**

The Administration of Justice Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate various local, state, and federal law enforcement career options.
- research the law enforcement application and hiring processes and develop an effective career strategy.
- critique the ethical philosophy of the American justice system and all participants.
- analyze crime causation, criminal statutes and elements of particular crimes and criminal procedures.
- recognize the complexities of punishment, corrections, community and human relations.
- evaluate the complex legal aspects of criminal investigations, procedures, constitutional law, and case law.
- identify various controlled substances and interpret their addictive properties, influences, and impact on society and law enforcement.
- apply laws and procedures for the collection and use of evidence.

- identify and adapt to ethical standards placed on law enforcement professionals.
- communicate effectively in written and oral formats.

Career Information

Police Officer; Deputy Sheriff; Crime Scene Investigator; Identification Technician; Community Services Officer; Corrections Officer; Parole Officer; Probation Officer and a variety of support service occupations. Potential employers include: Federal, State and local law enforcement agencies (Sheriff, Police, California Highway Patrol, Federal Bureau of Investigations, Drug Enforcement Administration, Department of Justice, Crime Scene Investigations, and California Department of Corrections and Rehabilitation).

Certificate

Homeland Security Certificate

This certificate examines the roots of terrorism, weapons of mass destruction, intelligence analysis, response methods, natural disaster incidents, threat mitigation, crisis negotiation, and conflict resolution. It explores topics directly associated with border security and security for transportation infrastructure, including: seaports, ships, aircraft, trains, train stations, highways, bridges, rail lines, pipelines, and bus systems.

Certificate Requirements

Course Code	Course Title	Units
HLS 300	Introduction to Homeland Security	3
HLS 302	Intelligence Analysis and Security Management	3
HLS 304	Transportation and Border Security	3
Total Units:		**9**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- construct a historical time-line reflecting significant terrorist threats and events in the United States and globally.
- classify the roles, functions of, and interdependency among local, federal and international law enforcement and military agencies to counter and combat terrorism.
- differentiate between ethical and unethical attitudes and actions regarding the execution of homeland security practices.
- identify the characteristics, ideologies, motives and behaviors of various extremist and terrorist groups that foster and support terrorist, criminal activities.
- explain operational knowledge of intelligence gathering and analysis processes pertinent to homeland security.
- identify and describe threats to national and international security.
- outline the primary federal, state, and local agencies in the United States that are affiliated with border and transportation security and the ethical parameters in which they operate.
- discuss differences in dealing with security threats for passengers versus freight/cargo transportation systems and border security.
- describe the impact of technology on countering threats to transportation systems and border security.

Administration of Justice (ADMJ) Courses

ADMJ 300 Introduction to Administration of Justice

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID AJ 110

This course introduces the characteristics of the American criminal justice system, U.S. Constitutional Rights, criminal activity, crime causation, domestic and international criminal threats, law enforcement response to criminal activity, and future law enforcement trends. It emphasizes the components of the American justice system, due process, courts and correctional services, ethics, and leadership.

ADMJ 301 Investigative Report Writing

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course provides techniques of writing facts, information, and ideas effectively in a simple, clear, and logical manner in the various types of criminal justice system reports. It emphasizes criminal justice terminology, organization of information, investigative note taking, and thorough documentation of witness statements and evidence.

ADMJ 302 Community Relations: Multicultural Issues

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (ADMJ 302 and ADMJ 304 combined: maximum credit, 1 course)

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID AJ 160

This course examines the complex, dynamic relationship between communities and the institutions of the justice system in addressing crime and conflict with an emphasis on the challenges and prospects of administering justice within a diverse, multicultural population. It addresses the role that race, ethnicity, gender, sexual orientation, social class, culture, and the criminal justice professional play in shaping these relationships. It also examines new strategies, skills, tools, and cultural knowledge necessary for personnel engaged in all aspects of the criminal justice system. Special topics include how terrorism and the need for homeland security have changed the dynamics of police-community relations.

ADMJ 304 Juvenile Delinquency

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (ADMJ 302 and ADMJ 304 combined: maximum credit, 1 course)

General Education: Local GE L4

C-ID: C-ID AJ 220

This course examines juvenile delinquency from a variety of perspectives including the concept of delinquency, theories of delinquency, social and environmental influences on delinquency, and the history of the juvenile justice system. It also explores the nature and extent of delinquency relative to gender differences, family dynamics, peer groups and gang affiliation, schools, drug use, and the juvenile justice courts.

ADMJ 309 Career Preparation for Law Enforcement Occupations

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course is designed for students who are pursuing careers in law enforcement and corrections. It covers employment and career search techniques, application processes, resume development, and cover letter writing. This course prepares students for pre-employment testing, interviews, background investigations, polygraph examinations, medical screening, conditional job offers, and hiring processes.

ADMJ 320 Concepts of Criminal Law

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitation: ADMJ 320, LA 332 and LA 334 combined: maximum credit, 1 course)

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID AJ 120

This course examines the philosophy and structure of criminal law in the United States. Special emphasis is placed on the classification of crime, the general elements of crime, the definitions of common and statutory law, and the nature of acceptable evidence. It utilizes case studies to introduce students to criminal law and the classification of crimes against persons, property, morals, and public welfare. It also includes discussion of prosecution and defense decision making, criminal culpability, and defenses to crimes.

ADMJ 322 Criminal Procedures

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

C-ID: C-ID AJ 122

This course is an in-depth study of criminal procedures used to enforce substantive law at both the federal and state level. Every step of the criminal process, from arrest to appeal, is thoroughly explored.

ADMJ 323 Legal Aspects of Evidence

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

C-ID: C-ID AJ 124

This course examines the origins, development, philosophy, and constitutional foundations of the rules of evidence as applied in United States law. Emphasis is placed on the types of evidence and the laws governing admissibility of evidence into criminal procedures. Topics include search and seizure, hearsay evidence, witness competency, and direct and circumstantial evidence.

ADMJ 330 Criminal Investigation

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

C-ID: C-ID AJ 140

This course introduces basic investigative responsibilities and procedures as applied to criminal investigations. Topics include crime scene management, forensic and physical evidence handling, search and seizure, property crimes, violent crimes, organized criminal enterprises, gangs, and domestic and international terrorist organizations.

ADMJ 331 Patrol Procedures

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course explores the early development and present-day role of patrol operations and techniques used by local law enforcement agencies. Major topics include community policing, effective patrol strategies, gang awareness, and key factors affecting deployment of patrol resources, such as community involvement and meeting department objectives.

ADMJ 340 Introduction to Correctional Services

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

C-ID: C-ID AJ 200

This course provides an overview of the history and trends of adult and juvenile corrections including probation and parole. It focuses on the legal issues, specific laws, and general operation of correctional institutions. The relationship between corrections and other components of the judicial system is examined.

ADMJ 498 Work Experience in Administration of Justice

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Administration of Justice Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability in the field of administration of justice. 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 Title 5 required forms which document the student's progress and hours spent at an approved worksite, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with the employer when the course is repeated. Only one Work Experience course may be taken per semester.

ADMJ 499 Experimental Offering in Administration of Justice

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Anthropology

Overview

Anthropology is the study of humankind around the world and throughout time, with the goal of understanding our evolutionary origins, our biological distinction as a species, and our diverse manifestations of culture. This degree provides students with basic skills in critical analysis, application of the scientific method, and cross-cultural understanding.

Our curriculum includes introductory courses, archaeology, world prehistory, cultures, and current issues in anthropology.

Degrees Offered

A.A.-T. in Anthropology

A.S. in Anthropology

A.S. in General Science

Dean: Matt Wright

Department Chair: AnnMarie Beasley Cisneros

Phone: (916) 484-8283

Email: BeasleA@arc.losrios.edu

Associate Degrees for Transfer

A.A.-T. in Anthropology

The Associate in Arts in Anthropology for Transfer (AA-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Anthropology at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, Â§66746):
â€¢ 60 semester or 90 quarter CSU-transferable units
â€¢ the California General Education Transfer Curriculum (Cal-GETC) pattern
â€¢ a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district
â€¢ obtain a minimum grade point average (GPA) of 2.0

All ADTs also require that students must earn a â€œCâ€ or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
ANTH 300	Biological Anthropology (3)	3
or ANTH 480	Honors Biological Anthropology (3)	
ANTH 301	Biological Anthropology Laboratory	1
ANTH 310	Cultural Anthropology (3)	3
or ANTH 481	Honors Cultural Anthropology (3)	
ANTH 320	Introduction to Archaeology and World Prehistory	3
List A:		
A minimum of 6 units from the following:		6
ANTH 330	Magic, Witchcraft, and Religion (3)	

Course Code	Course Title	Units
ANTH 334	Native Peoples of North America (3)	
ANTH 336	Anthropology of Sex, Sexuality and Gender (3)	
ANTH 341	Introduction to Linguistics (3)	
STAT C1000	Introduction to Statistics (4)	
or ECON 310	Statistics for Business and Economics (3)	
or PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
List B:		
A minimum of 3 units from the following:		3
Any course from List A not already used or		
ANTH 303	Introduction to Forensic Anthropology (3)	
ANTH 321	Ancient Technology (3)	
ANTH 333	American Indians of California (3)	
ANTH 335	Research Methods in Anthropology (3)	
ANTH 337	The Anthropology of Food (3)	
ANTH 370	Primatology (3)	
COMM 325	Intercultural Communication (3)	
DEAF 351	Introduction to American Deaf Culture (3)	
GEOG 310	Human Geography: Exploring Earth's Cultural Landscapes (3)	
GEOG 334	Introduction to GIS Software Applications (3)	
HIST 323	History of the United States: The American Indian Experience (3)	
HIST 327	History of the Chicano/Mexican American (3)	
HIST 330	Women in American History (3)	
HIST 332	Women in American History (To 1877) (3)	
HIST 333	Women in American History (1865-Present) (3)	
HIST 373	History of Mexico (3)	
HIST 374	History of Latin America to 1830 (3)	
MUFHL 330	World Music (3)	
PSYC 365	Issues of Diverse Populations (3)	
RLST 301	Introduction to World Religions (3)	
SOC 300	Introductory Sociology (3)	
or SOC 480	Introductory Sociology - Honors (3)	
SOC 302	Introduction to Social Research Methods (3)	
or PSYC 335	Research Methods in Psychology (3)	
SOC 321	Race, Ethnicity and Inequality in the United States (3)	
TA 306	Diversity in American Drama (1960 to Present) (3)	
Total Units:		**19**

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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply the science of anthropology towards a holistic understanding of human nature.
- synthesize the principles that form the foundation of anthropology.
- analyze social and ethical issues using anthropological concepts and methods.
- assess the cultural, physical, and linguistic diversity expressed in our species.

Career Information

The AA-T degree provides students with a solid foundation in anthropology as well as the standard prerequisites for upper division coursework leading to the baccalaureate degree. Anthropologists with graduate degrees work in archaeological excavation and museum management, the analysis of cultures, linguistics, forensics, primatology, and education. They also consult with governmental, business, and educational institutions.

Associate Degrees

A.S. in Anthropology

Anthropology is the study of humankind around the world and throughout time, with the goal of understanding our evolutionary origins, our biological distinction as a species, and our diverse manifestations of culture. This degree provides students with basic skills in critical analysis, application of the scientific method, and cross-cultural understanding.

Degree Requirements

Course Code	Course Title	Units
ANTH 300	Biological Anthropology (3)	3
or ANTH 480	Honors Biological Anthropology (3)	
ANTH 301	Biological Anthropology Laboratory	1
ANTH 310	Cultural Anthropology (3)	3
or ANTH 481	Honors Cultural Anthropology (3)	
ANTH 320	Introduction to Archaeology and World Prehistory	3
A minimum of 8 units from the following:		8

Course Code	Course Title	Units
ANTH 303	Introduction to Forensic Anthropology (3)	
ANTH 321	Ancient Technology (3)	
ANTH 330	Magic, Witchcraft, and Religion (3)	
ANTH 333	American Indians of California (3)	
ANTH 334	Native Peoples of North America (3)	
ANTH 335	Research Methods in Anthropology (3)	
ANTH 336	Anthropology of Sex, Sexuality and Gender (3)	
ANTH 341	Introduction to Linguistics (3)	
ANTH 370	Primatology (3)	
Total Units:		**18**

The Anthropology Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply the science of anthropology towards a holistic understanding of human nature.
- synthesize the principles that form the foundation of anthropology.
- analyze social and ethical issues related to the field of anthropology and its practical applications.
- analyze the cultural, physical, and linguistic diversity expressed in our species.

Career Information

This degree provides students with a solid foundation in anthropology as well as the standard prerequisites for upper division coursework leading to the baccalaureate degree. Anthropologists with graduate degrees work in occupations ranging from archaeological excavation, exploration, and museum management to the analysis of cultures, linguistics, forensics, primatology, teaching, and consulting with governmental and educational institutions.

A.S. in General Science

This program provides a broad study in the fields of biological and physical sciences in preparation for transfer to a four-year program and continuation of studies in upper division science courses.

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18[1]
Physical Science Courses		
ASTR C1001	Introduction to Astronomy (3)	
ASTR 310	The Solar System (3)	
ASTR 320	Stars, Galaxies, and Cosmology (3)	
ASTR 330	Introduction to Astrobiology (3)	
ASTR C1001L	Introduction to Astronomy Lab (1)	
ASTR 481	Honors Astronomy: Stars, Galaxies, and Cosmology (4)	
ASTR 495	Independent Studies in Astronomy (1 - 3)	
ASTR 499	Experimental Offering in Astronomy (0.5 - 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 310	Chemical Calculations (4)	
CHEM 338	Chemistry In Your World (3)	
CHEM 400	General Chemistry I (5)	
CHEM 401	General Chemistry II (5)	
CHEM 420	Organic Chemistry I (5)	
CHEM 421	Organic Chemistry II (5)	
CHEM 423	Organic Chemistry - Short Survey (5)	
CHEM 495	Independent Studies in Chemistry (1 - 3)	
CHEM 499	Experimental Offering in Chemistry (0.5 - 4)	
GEOG 300	Physical Geography: Exploring Earth's Environmental Systems (3)	
GEOG 301	Physical Geography Laboratory (1)	
GEOG 305	Global Climate Change (3)	

Course Code	Course Title	Units
GEOG 306	Weather and Climate (3)	
GEOG 307	Environmental Hazards and Natural Disasters (3)	
GEOG 308	Introduction to Oceanography (3)	
GEOG 309	Introduction to Oceanography Lab (1)	
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 495	Independent Studies in Geography (1 - 3)	
GEOG 499	Experimental Offering in Geography (0.5 - 4)	
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)	
GEOL 320	Global Climate Change (3)	
GEOL 325	Environmental Hazards and Natural Disasters (3)	
GEOL 330	Introduction to Oceanography (3)	
GEOL 331	Introduction to Oceanography Lab (1)	
GEOL 345	Geology of California (3)	
GEOL 392	Field Studies in Mountain Landscapes (1 - 4)	
GEOL 393	Field Studies in Coastal Landscapes (1 - 4)	
GEOL 394	Field Studies in Volcanic Landscapes (1 - 4)	
GEOL 495	Independent Studies in Geology (1 - 3)	
GEOL 499	Experimental Offering in Geology (0.5 - 4)	
PHYS 310	Conceptual Physics (3)	
PHYS 311	Basic Physics (3)	
PHYS 312	Conceptual Physics Laboratory (1)	
PHYS 350	General Physics (4)	
PHYS 360	General Physics (4)	
PHYS 410	Mechanics of Solids and Fluids (5)	
PHYS 421	Electricity and Magnetism (4)	
PHYS 431	Heat, Waves, Light and Modern Physics (4)	
PHYS 495	Independent Studies in Physics (1 - 3)	
PHYS 499	Experimental Offering in Physics (0.5 - 4)	
Biological Science Courses		
ANTH 300	Biological Anthropology (3)	
ANTH 301	Biological Anthropology Laboratory (1)	
ANTH 303	Introduction to Forensic Anthropology (3)	
ANTH 370	Primatology (3)	
ANTH 480	Honors Biological Anthropology (3)	
ANTH 495	Independent Studies in Anthropology (1 - 3)	
ANTH 499	Experimental Offering in Anthropology (0.5 - 4)	
BIOL 300	The Foundations of Biology (3)	
BIOL 301	Evolution (3)	
BIOL C1000	Introduction to Biology with Lab (4)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
BIOL 305	Natural History (4)	
BIOL 310	General Biology (4)	
BIOL 322	Ethnobotany (3)	

Course Code	Course Title	Units
BIOL 332	Introduction to Ornithology (4)	
BIOL 342	The New Plagues: New and Ancient Infectious Diseases Threatening World Health (3)	
BIOL 352	Conservation Biology (3)	
BIOL 370	Marine Biology (4)	
BIOL 375	Marine Ecology (3)	
BIOL 390	Natural History Field Study (0.5 - 4)	
BIOL 400	Principles of Biology (5)	
BIOL 410	Principles of Botany (5)	
BIOL 415	Introduction to Biology: Biodiversity, Evolution, and Ecology (5)	
BIOL 420	Principles of Zoology (5)	
BIOL 430	Anatomy and Physiology (5)	
BIOL 431	Anatomy and Physiology (5)	
BIOL 440	General Microbiology (4)	
BIOL 442	General Microbiology and Public Health (5)	
BIOL 482	Honors Marine Biology (4)	
BIOL 495	Independent Studies in Biology (1 - 3)	
BIOL 499	Experimental Offering in Biology (0.5 - 4)	
BIOT 301	Biotechnology and Human Health (3)	
BIOT 305	Introduction to Bioinformatics (1)	
BIOT 307	Biotechnology and Society (2)	
BIOT 311	Biotechnology Laboratory Methods - Molecular Techniques (2)	
BIOT 312	Biotechnology Laboratory Methods - Microbial and Cell Culture Techniques (2)	
BIOT 499	Experimental Offering in Biology (0.5 - 4)	
NATR 300	Introduction to Natural Resource Conservation and Policy (4)	
NATR 301	Introduction to Ornithology (4)	
NATR 302	Introduction to Wildlife Biology (4)	
NATR 303	Energy and Sustainability (3)	
NATR 304	The Forest Environment (3)	
NATR 305	Fisheries Ecology and Management (4)	
NATR 306	Introduction to Rangeland Ecology and Management (4)	
NATR 307	Principles of Sustainability (4)	
NATR 310	Study Design and Field Methods (4)	
NATR 320	Principles of Ecology (4)	
NATR 322	Environmental Restoration (3)	
NATR 324	Field Studies: Birds and Plants of the High Sierra (2)	
NATR 330	Native Trees and Shrubs of California (4)	
NATR 332	Wildflowers of California (4)	
NATR 346	Water Resources and Conservation (3)	
NATR 495	Independent Studies in Natural Resources (1 - 3)	
NATR 499	Experimental Offering in Natural Resources (0.5 - 4)	
PSYC 310	Biological Psychology (3)	
PSYC 311	Biological Psychology Laboratory (1)	
Total Units:		**18**

[1]must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science

The General Science Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate new and accepted ideas about the natural universe using scientific methods.
- analyze a wide variety of natural phenomena using basic definitions and fundamental theories of biological or physical sciences.
- apply appropriate quantitative and qualitative methods to interpret and analyze pertinent data.
- outline the basic concepts and fundamental theories of a natural science.
- articulate orally and/or in writing the importance of continuous examination and modification of accepted ideas as a fundamental element in the progress of science.
- discuss ethical components of scientific decision making and apply personal and social values within the process of decision making in scientific endeavors.

Anthropology (ANTH) Courses

ANTH 300 Biological Anthropology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B

C-ID: C-ID ANTH 110

This course covers the concepts, methods, and theory of biological evolution and its application to the human species. There is a specific focus on molecular, Mendelian, and population genetics as well as on the mechanisms of evolution primatology, paleoanthropology, biocultural adaptations, human variation, and current bioethical issues. The philosophy of science and the scientific method serve as foundations to this course. This course is not open to students who have completed ANTH 480.

ANTH 301 Biological Anthropology Laboratory

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Corequisite: ANTH 300 or 480

Transferable: CSU; UC

General Education: Cal-GETC Area 5C

C-ID: C-ID ANTH 115L

This introductory laboratory course provides opportunities to become familiar with the scientific methods of biological anthropology by investigating topics in laboratory and field situations. Topics covered in the course include the scientific method, sources of biological variation and forces of evolution, human osteology, human variation, taxonomy and comparative osteology of the primates, and the fossil evidence for human evolution. Field trips may be required.

ANTH 303 Introduction to Forensic Anthropology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: BIOL 115, BIOL 304, BIOL 430, OR ANTH 300 and 301; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B

This course is an overview of forensic anthropology, an applied field of biological anthropology. Forensic anthropology uses the analysis of human skeletal remains to answer medicolegal questions. This course emphasizes current techniques used in analysis of human skeletal remains, medicolegal procedures, and the role of the anthropologist in the investigative process. It examines the basics of bone biology, methods of skeletal analysis, and recognition of bone pathology and trauma. Field trips may be required.

ANTH 310 Cultural Anthropology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID ANTH 120

This course explores the various customs, traditions, and forms of social organizations from a global perspective. Topics include subsistence methods, belief and religious systems, linguistics, trade and economic systems, arts, kinship systems, marriage and family systems, technology, and changes due to internal and external forces. Gender, race, and ethnic identity are examined as well as the role of society in defining these terms. Using ethnographic case studies, this course examines

how anthropological ethics, methods, and theories are applied to the study of human culture. This course is not open to students who have already completed ANTH 481.

ANTH 320 Introduction to Archaeology and World Prehistory

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID ANTH 150

This course is an introduction to the theories, concepts, and methods employed by the archaeologist in the study of human history and prehistory. It emphasizes the development and diverse evolution of social and cultural systems. It also explores the challenges and achievements of non-literate and traditional cultures, diverse communities, and social classes over time.

ANTH 321 Ancient Technology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: ANTH 320; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4

This course examines technological capabilities of pre-industrial societies using ethnographic and archaeological examples and an experimental approach. Topics include construction techniques of temporary and permanent structures, pottery construction, glassmaking, metallurgy, textile production, as well as bone, stone, wood, and other technologies crucial to human survival. Field trips may be required.

ANTH 330 Magic, Witchcraft, and Religion

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 4

This course is a cross-cultural study of supernatural beliefs and associated rituals in various societies around the world. Emphasis is on understanding the role of beliefs within their sociocultural context and in broad comparison to understand the general functions of beliefs and rituals in human life. Similarities and differences between traditional beliefs and world religions are also explored. Field trips may be required.

ANTH 333 American Indians of California

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course surveys the sociocultural systems of California Indians from the prehistoric period to the present. In addition to offering an overview of the diversity and complexity of aboriginal California, it includes environmental adaptations, material culture, social structure, ideology, and response to change. Field trips may be required.

ANTH 334 Native Peoples of North America

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course is an introductory survey of traditional Native American societies. It describes the peoples and cultures of North America and emphasizes native ecological adaptations, languages, social organizations, religions, mythologies and world views, and artistic representations. It also explores the interrelatedness of Indigenous Native American groups through trade, intermarriage, and other forms of cultural exchange. Field trips may be required.

ANTH 335 Research Methods in Anthropology

Units: 3

Hours: 54 hours LEC

Prerequisite: ANTH 300 or 310 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course introduces research methods for the field of Anthropology. It emphasizes familiarization with specific observational research methods and the practical application of these methods in a contemporary setting. Field trips may be required.

ANTH 336 Anthropology of Sex, Sexuality and Gender

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course is an introductory overview from a global anthropological perspective of the relationship between sexual behavior and sexuality as well as gender and other socially ascribed statuses. Diverse modern and past human and non-human primate communities are compared bio-culturally. Integrating the basic branches of anthropology -- cultural, biological, linguistic and archaeological anthropology -- the course examines the role, function, and evolution of sex in the human primate. It examines the relationship between sex, sexuality, and gender to adaptation as well as to social behavior and to cultural variation. The implications of research methodologies and theory in investigating sex, sexuality, culture and biology are evaluated. This course will explore the impact of modern theories of gender and sexuality, such as queer theory and feminist perspectives, from an intersectional approach.

ANTH 337 The Anthropology of Food

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course examines eating, drinking, and consuming behaviors around the world through time. The roles of rituals, taboos, and belief systems are reviewed. It includes a basic anthropological approach to the search for and explanation of human universals and variations. Comparing the habits of apes and monkeys, as well as the fossil record, this course addresses the evolution of the modern human body. Shifts in social and environmental conditions, as well as the impact of innovations in methods of preparation over time and in radically diverse communities are analyzed.

ANTH 341 Introduction to Linguistics

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 4

C-ID: C-ID ANTH 130

This introductory course serves as a foundation for understanding language from an anthropological perspective. It addresses such core questions as how, what, when, where, why, and with whom humans communicate. The course topics are formed along three core areas:
(1) structural linguistics, which include phonetics, phonology, morphology, syntax, and semantics;
(2) historical linguistics, which include language origin and evolution, structural change, and language genetics; and
(3) sociocultural linguistics, which include child and adult language acquisition, and cultural and psychological constraints within the context of linguistic ethnography.

ANTH 370 Primatology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: ANTH 300

Transferable: CSU; UC

General Education: Local GE L4; Local GE L5

This course provides an analysis of nonhuman primate comparative morphology, behavior, and ecology. Areas of study include general primate morphology, diet and ecology, behavior including reproduction and social systems, cognition and intelligence, and primate conservation issues. Primates in both captive and free-ranging settings are examined. Field trips for primate observations may be required.

ANTH 391 Life and Culture Study Abroad

Units: 3

Hours: 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 as required by the American Institute for Foreign Studies (AIFS).

Transferable: CSU

This course allows 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 supports 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. Students may find information about the pre-enrollment meetings at the Study Abroad website, located at: http://www.arc.losrios.edu/Study_Abroad.htm

ANTH 480 Honors Biological Anthropology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Enrollment Limitation: Eligibility for the Honors Program.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B

C-ID: C-ID ANTH 110

This course is an introduction to the science of biological anthropology. It is a seminar-style honors course which approaches the topical material through class discussion which encourages problem solving techniques focusing on current anthropological issues. Weekly topical issues are presented in a case study format. Critical thinking skills are emphasized in responding to these issues. Topics include evolutionary theory, heredity, human variation, taxonomy and behavior of the living primates, and the fossil evidence of human evolution. This course differs from ANTH 300 in that it is offered as a seminar-style class with an emphasis on academic journal articles. This course is not open to students who have completed ANTH 300.

ANTH 481 Honors Cultural Anthropology

Units: 3

Hours: 54 hours LEC

Prerequisite: Placement into ENGL C1000H (formerly ENGWR 480).

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID ANTH 120

This course is an introduction to the various customs, traditions, and forms of social organization in both Western and non-Western societies. Multicultural perspectives are examined for such topics as subsistence methods, belief and religious systems, linguistics, trade and economic systems, arts, kinship systems, marriage and family systems, technology, and changes due to internal and external forces. This seminar-style honors course approaches the topical material through class discussion which encourages problem-solving techniques focusing on current anthropological issues. This course is not open to students who have completed ANTH 310.

ANTH 494 Topics in Anthropology

Units: 1 - 3

Hours: 18 - 54 hours LEC

Prerequisite: None.

Advisory: ENGWR 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; OR placement through assessment process.

Transferable: CSU

This course is a concentrated study of current anthropological issues. Topics reflect contemporary issues and problems in the four traditional fields as well as an applied approach where appropriate. Issues in the area of physical anthropology are approached from a biological and ecological perspective; issues in cultural anthropology, linguistics, and archaeology are approached from a multi-cultural and international platform.

ANTH 495 Independent Studies in Anthropology

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the

college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ANTH 499 Experimental Offering in Anthropology

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Apprenticeship

Overview

American River College conducts, in cooperation with industry, a number of apprenticeship programs. An apprenticeship program is a formal system of occupational training from one to five years, that combines paid employment, on-the-job training and job related college instruction in order to develop skilled workers.

Apprenticeship programs are a cooperative effort between employers, the Department of Labor (DOL) and/or the Division of Apprenticeship Standards (DAS), and the college.

Enrollment in an apprenticeship course is limited to registered apprentices. Information on admission to apprenticeship status can be obtained from the local trade in which you are interested, or from the office of the Dean of Apprenticeship.

Degrees and Certificates Offered

- A.A. in Acoustical Installer Apprenticeship
- A.A. in Carpenter Apprenticeship
- A.A. in Drywall/Lathing Apprenticeship
- A.A. in Electrical Apprenticeship
- A.A. in Elevator Apprenticeship
- A.A. in Hardwood Floor Layer Apprenticeship
- A.A. in Ironworkers Apprenticeship
- A.A. in Mill and Cabinet Maker Apprenticeship
- A.A. in Pile Driver Apprenticeship
- A.A. in Scaffold Erector Apprenticeship
- A.A. in Sheet Metal Apprenticeship
- A.A. in Sheet Metal Service Technician Apprenticeship
- A.A. in Steamfitter Apprenticeship
- A.A. in Welder Apprenticeship
- A.S. in Millwright Apprenticeship
- A.S. in Plumbers/Pipefitters Apprenticeship
- A.S. in Refrigeration Service Technician Apprenticeship

- Acoustical Installer Apprenticeship Certificate
- Acoustical Installer Level I Certificate
- Acoustical Installer Level II Certificate
- Acoustical Installer Level III Certificate
- Carpenter Apprenticeship Certificate
- Carpenter Apprenticeship Level I Certificate
- Carpenter Apprenticeship Level II Certificate
- Carpenter Apprenticeship Level III Certificate
- Drywall/Lathing Apprenticeship Certificate
- Drywall/Lathing Level I Certificate
- Drywall/Lathing Level II Certificate
- Drywall/Lathing Level III Certificate
- Electrical Apprenticeship Certificate
- Electrical Apprenticeship Level I Certificate
- Electrical Apprenticeship Level II Certificate
- Electrical Apprenticeship Level III Certificate
- Electrical Apprenticeship Level IV Certificate
- Elevator Apprenticeship Certificate
- Elevator Apprenticeship Level I Certificate
- Elevator Apprenticeship Level II Certificate
- Elevator Apprenticeship Level III Certificate
- Elevator Apprenticeship Level IV Certificate
- Hardwood Floor Layer Apprenticeship Certificate
- Hardwood Floor Layer Level I Certificate
- Hardwood Floor Layer Level II Certificate
- Hardwood Floor Layer Level III Certificate
- Insulator Apprenticeship Certificate
- Insulator Apprenticeship Level I Certificate
- Insulator Apprenticeship Level II Certificate
- Ironworkers Apprenticeship Certificate
- Ironworkers Apprenticeship Level I Certificate
- Ironworkers Apprenticeship Level II Certificate
- Ironworkers Apprenticeship Level III Certificate

Mill and Cabinet Maker Apprenticeship Certificate

Mill and Cabinet Maker Level I Certificate

Mill and Cabinet Maker Level II Certificate

Mill and Cabinet Maker Level III Certificate

Millwright Apprenticeship Certificate

Millwright Level I Certificate

Millwright Level II Certificate

Millwright Level III Certificate

Office Modular Systems Apprenticeship Certificate

Office Modular Systems Level I Certificate

Pile Driver Apprenticeship Certificate

Pile Driver Level I Certificate

Pile Driver Level II Certificate

Pile Driver Level III Certificate

Plumbers/Pipefitters Apprenticeship Certificate

Plumbers/Pipefitters Apprenticeship Level I Certificate

Plumbers/Pipefitters Apprenticeship Level II Certificate

Plumbers/Pipefitters Apprenticeship Level III Certificate

Plumbers/Pipefitters Apprenticeship Level IV Certificate

Refrigeration Service Technician Apprenticeship Certificate

Refrigeration Service Technician Apprenticeship Level I Certificate

Refrigeration Service Technician Apprenticeship Level II Certificate

Refrigeration Service Technician Apprenticeship Level III Certificate

Refrigeration Service Technician Apprenticeship Level IV Certificate

Scaffold Erector Apprenticeship Certificate

Scaffold Erector Level I Certificate

Scaffold Erector Level II Certificate

Scaffold Erector Level III Certificate

Sheet Metal Apprenticeship Certificate

Sheet Metal Apprenticeship Level I Certificate

Sheet Metal Apprenticeship Level II Certificate

Sheet Metal Apprenticeship Level III Certificate

Sheet Metal Apprenticeship Level IV Certificate

Sheet Metal Service Technician Apprenticeship Certificate

Sheet Metal Service Technician Apprenticeship Level I Certificate

Sheet Metal Service Technician Apprenticeship Level II Certificate

Sheet Metal Service Technician Apprenticeship Level III Certificate

Sheet Metal Service Technician Apprenticeship Level IV Certificate

Shingler Certificate

Steamfitter Apprenticeship Certificate

Steamfitter Apprenticeship Level I Certificate

Steamfitter Apprenticeship Level II Certificate

Steamfitter Apprenticeship Level III Certificate

Steamfitter Apprenticeship Level IV Certificate

Welder Apprenticeship Certificate

Welder Apprenticeship Level I Certificate

Welder Apprenticeship Level II Certificate

Welder Apprenticeship Level III Certificate

Welder Apprenticeship Level IV Certificate

Dean: John McCormack

Coordinator: Christopher Moore

Phone: (916) 484-8561

Email: apprenticeship@arc.losrios.edu

Associate Degrees

A.A. in Acoustical Installer Apprenticeship

This degree concentrates on training apprentices to the specific levels required for the acoustical installer industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial acoustical installer processes, building codes, estimation, and various carpentry topics.

Degree Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
CARPT 106	Introduction to Apprenticeship I (1.5)	
CARPT 141	Suspended Framing Ceiling Systems (1.5)	
CARPT 143	Commercial Steel Framing (1.5)	
CARPT 144	Grid Ceilings I (1.5)	
CARPT 146	Specialty Ceiling Systems (1.5)	
CARPT 147	Grid Ceilings III (1.5)	
CARPT 148	Access Floor Systems (1.5)	
CARPT 161	Acoustical Blueprint Reading Basic (1.5)	

Course Code	Course Title	Units
CARPT 164	Blueprint Reading Specialized Acoustical (1.5)	
CARPT 166	Acoustical Blueprint Reading Advanced (1.5)	
CARPT 190	Introduction to Welding (1.5)	
CARPT 211	Introduction to Acoustical Apprenticeship II (1.5)	
CARPT 213	Acoustical Exterior Systems (1.5)	
CARPT 214	Wall and Ceiling Fabric Installation (1.5)	
CARPT 215	Specialty Systems (1.5)	
A minimum of 16 units from the following:		16
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**37**

The Acoustical Installer Apprenticeship Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Acoustical Installer apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify the components of a personal fall protection system (PFPS) and a personal fall arrest system (PFAS).
- calculate elevations from information obtained from residential plot and foundation plans.
- calculate contributory leg loads.
- formulate proper layout, cutting, and material installation procedures for the installation of braced and unbraced soffits.
- explain how to install stringer system reinforced perimeter locations, bridge obstructions, and additional bracing.
- extract the information necessary to construct a Photovoltaic support structure using a set of blueprints.
- install an acoustical ceiling conforming with the regulations of the Office of Statewide Health Planning and Development.
- analyze and perform methods of joining and welding plastic materials.
- describe the importance of a construction schedule and daily job log and organize labor in conjunction with the construction schedule.

Career Information

Acoustical technicians are in high demand. The acoustical industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the acoustical industry.

A.A. in Carpenter Apprenticeship

This program concentrates on training apprentices to the specific levels required for the construction industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial construction processes, building codes, estimation, and various carpentry topics.

Degree Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
CARPT 101	Introduction to Apprenticeship II (1.5)	
CARPT 106	Introduction to Apprenticeship I (1.5)	
CARPT 107	Rigging (1.5)	
CARPT 110	Foundations and Floors (1.5)	
CARPT 112	Structural Framing (1.5)	
CARPT 114	Concrete Formwork Certification (1.5)	
CARPT 120	Exterior Finish (1.5)	
CARPT 122	Interior Finish (1.5)	
CARPT 130	Layout and Level Instruments (1.5)	
CARPT 140	Interior Systems (1.5)	
CARPT 142	Engineered Structural Systems (1.5)	
CARPT 150	Concrete Bridge Building Certification (1.5)	
CARPT 155	Commercial Concrete (1.5)	
CARPT 160	Blueprint Reading Basic (1.5)	
CARPT 162	Blueprint Reading Advanced (1.5)	
CARPT 180	Stair Building (1.5)	
A minimum of 16 units from the following:		16
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**37**

The Carpenter Apprenticeship Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the

California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Carpenter apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the carpenter's tools of the trade.
- analyze, interpret, and apply national building codes relating to carpentry.
- analyze and interpret residential and commercial construction blueprints.
- evaluate, layout, and construct various systems such as floor, wall, roof, and concrete form.
- evaluate and layout a building site using architectural drawings.
- calculate elevations by using an engineer's rod and various leveling devices.
- estimate and order material for construction projects.
- identify and select appropriate materials for each phase of construction.
- develop interpersonal skills with customers, co-workers, and different trades-workers.
- plan projects with given information such as blueprints, specifications, and contract documents.

Career Information

Carpenter technicians are in high demand. The carpenters industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the carpenters industry.

A.A. in Drywall/Lathing Apprenticeship

This drywall/lathing apprenticeship degree concentrates on training apprentices to the specific levels required for the drywall/lathing industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, metal framing, blueprint reading, exterior/interior wall finishes, welding, residential and commercial construction process, building codes, estimation, and various construction topics.

Degree Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
DRLTH 100	Introduction to Apprenticeship I (1.5)	
DRLTH 102	Basic Applications (1.5)	
DRLTH 104	Introduction to Apprenticeship II (1.5)	
DRLTH 112	Doors, Frames, and Hardware of Windows (1.5)	
DRLTH 120	Blueprint Reading I, First Aid, and CPR (1.5)	
DRLTH 121	Blueprint Reading II (1.5)	
DRLTH 122	Blueprint Reading III (1.5)	
DRLTH 130	Welding Light Gauge (1.5)	
DRLTH 131	Welding Heavy Gauge (1.5)	
DRLTH 140	Commercial Framing Systems and Fire Control (1.5)	
DRLTH 141	Building Envelope (1.5)	
DRLTH 142	Exterior Lath Systems and Trims (1.5)	
DRLTH 150	Interior Metal Lath Systems (1.5)	
DRLTH 160	Ceiling Systems (1.5)	
DRLTH 162	Arches, Furring and Advanced Systems (1.5)	
DRLTH 170	Advanced Construction Techniques (1.5)	
A minimum of 16 units from the following:		16
DRLTH 298	Work Experience Drywall/Lathing Apprenticeship (0.5 - 6)	
Total Units:		**37**

The Drywall/Lathing Apprenticeship Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Drywall/Lathing apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.

- demonstrate proper selection, use, care, preparation, and handling of the drywall/lathing craftsman's tools of the trade.
- analyze, interpret, and apply national building codes relating to the drywall/lathing profession.
- analyze and interpret residential commercial construction blueprints.
- evaluate, lay out, and construct various metal framing systems such as floor, wall, roof, and arches.
- calculate elevations using various leveling devices.
- identify and select appropriate material for each phase of construction.
- estimate and order material for construction projects.
- plan projects using information gathered from sources such as verbal information, written information, customer specifications, and project blueprints.
- install advanced lathing and drywall systems.

Career Information

Drywall/lathing technicians are in high demand. The drywall/lathing industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the drywall/lathing industry.

A.A. in Electrical Apprenticeship

This program provides instruction in the installation, operation, and maintenance of the electrical distribution systems in commercial and industrial sites. Topics include safety training, AC and DC electrical theory, metering, electronics, use of electrical codes, raceways, conductors, grounding, motors, transformers, fire alarm systems, fiber optics, instrumentation, building automation and heating, ventilating and air conditioning (HVAC) systems.

Degree Requirements

Course Code	Course Title	Units
ELECT 110	Electrical Apprenticeship I	5
ELECT 111	Electrical Apprenticeship II	3
ELECT 120	Electrical Apprenticeship III	3
ELECT 121	Electrical Apprenticeship IV	3
ELECT 130	Electrical Apprenticeship V	3
ELECT 131	Electrical Apprenticeship VI	3
ELECT 140	Electrical Apprenticeship VII	3
ELECT 141	Electrical Apprenticeship VIII	3
ELECT 150	Electrical Apprenticeship IX	3
ELECT 151	Electrical Apprenticeship X	3
A minimum of 16 units from the following:		16
ELECT 298	Work Experience in Electricians Apprenticeship (0.5 - 4)	
Total Units:		**48**

The Electrical Apprenticeship Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus the local ARC General Education Requirement, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered electrical apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply commercial and industrial safety procedures on job sites.
- analyze, interpret and apply national, state and local electrical codes.
- apply electrical mathematics in calculating resistance, current, voltage, and power in a DC series circuit.
- demonstrate use of meters to confirm electrical calculations and to troubleshoot AC and DC circuits.
- analyze, identify, and evaluate electrical mathematics in RL, RC, LC, and RLC series, parallel, and combination circuits.
- describe and apply the requirements of Occupational Safety and Health Administration (OSHA) and National Fire Protection Association (NFPA) 70E work practices.
- define principles of basic AC and DC motor theory.

Career Information

Upon completion of the electrical program, students may find employment in the following industry sectors: government, commercial and industrial construction and maintenance, utilities, and facilities management. Students may further their career as a licensed contractor.

A.A. in Elevator Apprenticeship

This program concentrates on training elevator apprentices to the specific levels required for the elevator industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, welding, and various elevator topics.

Degree Requirements

Course Code	Course Title	Units
ELEVA 101	Elevator Trade Skills	3
ELEVA 102	Elevator Hoistway Structures	3
ELEVA 103	Elevator Electrical Fundamentals	4
ELEVA 104	Elevator Electrical Theory and Application	3
ELEVA 105	Elevator Installation	4
ELEVA 106	Elevator Solid State Electronics	4
ELEVA 107	Elevator Power and Logic	3
ELEVA 108	Advanced Topics in Elevators	4
A minimum of 16 units from the following:		16
ELEVA 298	Work Experience in Elevator Apprenticeship (0.5 - 6)	
Total Units:		**44**

The Elevator Apprenticeship Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Elevator apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate appropriate behavior in the workplace to prevent harassment and discrimination.
- demonstrate material handling and how to rig and hoist heavy elevator equipment.
- solve mathematical and algebraic equations that pertain to voltage, current, and resistance in electrical theory (Ohm's Law).
- compare basic magnetism and electromagnetism, including Domain Theory.
- interpret the electrical inductance of transformers and the functions of step-down and step-up transformers.
- research how capacitors and capacitance, inductors and inductance, and diodes pertain to the elevator industry.
- define relays and timers, power and power control, as well as logic controls pertaining to elevator control systems.
- describe the components and installation procedures for installing and maintaining escalators.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction, and utilities.

A.A. in Hardwood Floor Layer Apprenticeship

This program concentrates on training hardwood floor layer apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, and various hardwood floor layer topics.

Degree Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
INSTL 100	Orientation and OSHA 10 (1.5)	
INSTL 102	Substrate Preparation (1.5)	
INSTL 103	Concrete Polishing (1.5)	
INSTL 104	Adhesives and Layout (1.5)	
INSTL 105	Wall Base (1.5)	
INSTL 106	Introduction to Resilient (1.5)	
INSTL 107	Complex Layout (1.5)	
INSTL 110	Resilient Linoleum (1.5)	
INSTL 111	Hardwood Installation (1.5)	
INSTL 112	Glue Down Carpet Installation (1.5)	
INSTL 113	Stretch-In Carpet Installation (1.5)	
INSTL 114	Introduction to Flash Cove (1.5)	
INSTL 115	Resilient Flash Cove (1.5)	
INSTL 120	Hardwood Sand and Finish (1.5)	
INSTL 121	Advanced Heat Welding (1.5)	
INSTL 122	Resilient Stairs (1.5)	
INSTL 123	Polished Overlay (1.5)	
INSTL 124	Carpet Stairs (1.5)	

Course Code	Course Title	Units
INSTL 125	Turf and Rugmaking (1.5)	
INSTL 126	Custom Insets (1.5)	
A minimum of 16 units from the following:		16
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
CARPT 498	Work Experience in Carpenters Apprenticeship (0.5 - 4)	
INSTL 298	Work Experience in Flooring Install Carpentry Apprenticeship (0.5 - 6)	
Total Units:		**37**

The Hardwood Floor Layer Apprenticeship Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus the local ARC General Education Requirement, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a state registered Hardwood Floor Layer apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the hardwood floor layer tools of the trade.
- analyze, interpret, and apply national building codes relating to hardwood floor laying.
- analyze and interpret construction blueprints.
- evaluate, lay out, and construct various project types.
- identify and select appropriate materials for each phase of construction.

Career Information

Hardwood floor layer technicians are in high demand. The hardwood floor layer industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the hardwood floor layer industry.

A.A. in Ironworkers Apprenticeship

This program includes training for Field Ironworkers and Reinforcing Ironworkers, provided in major ironworker components to meet Division of Apprenticeship Standards (DAS) guidelines.

Degree Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
IW 100	Orientation and History of the Trade (2)	
IW 101	OSHA 30 for Ironworkers (2)	
IW 110	Mixed Base (1.5)	
IW 120	Rigging (1.5)	
IW 130	Reinforcing I (1.5)	
IW 131	Reinforcing II/Post Tensioning (1.5)	
IW 140	Precast Concrete and Metal Buildings (1.5)	
IW 150	Welding I (1.5)	
IW 151	Welding II (1.5)	
IW 152	Welding III (1.5)	
IW 158	Advanced Welding Shop (0.5 - 16)	
IW 160	Lead Hazard (2)	
IW 170	Structural I (1.5)	
IW 171	Structural II (1.5)	
IW 180	Architectural/Ornamental I (1.5)	
IW 183	The History of Ironworkers (3)	
IW 186	Architectural/Ornamental II (1.5)	
A minimum of 16 units from the following:		16
IW 298	Work Experience in Ironworkers Apprenticeship (0.5 - 6)	
Total Units:		**37**

The Ironworkers Apprenticeship Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Ironworker apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- analyze and interpret blueprints.
- interpret and apply welding codes.
- demonstrate proper selection, use, care, preparation, and handling of fiber lines, steel cables, wire ropes, chains, slings, cranes, ladders, scaffolds, and helicopter rigging.
- define, identify, interpret, and analyze Uniform Building Codes (UBC), classifications, plans, schedules, charts, and specifications commonly used in the ironworker trade.
- describe and apply reinforcing techniques and principles to concrete structures using steel, bar supports, bar splicing, and welding.
- perform proper structural steel erection on bridges, overpasses, and large buildings.
- weld various ferrous metals using common welding processes and safety guidelines.
- set cable tensions and pre-stress reinforcing steel to industry standards.

A.A. in Mill and Cabinet Maker Apprenticeship

This program trains apprentices on the specific levels required for the construction industry and has been approved by the State of California Department of Apprenticeship Standards. It includes safety, blueprint reading, construction processes, building codes, estimation, and various mill and cabinet carpentry topics.

Degree Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
CARPT 270	Basic Tool Safety for Mill Cabinet (1.5)	
CARPT 271	Introduction to Mill Cabinet Apprenticeship (1.5)	
CARPT 272	Math for the Mill Cabinet Trade (1.5)	
CARPT 273	Basic Cabinet Making (1.5)	
CARPT 274	Basic Blueprint Reading for Mill Cabinet (1.5)	
CARPT 275	Machinery Maintenance for Mill Cabinet (1.5)	
CARPT 276	Hardware Installation (1.5)	
CARPT 277	Sanding, Stains, and Finish Preparation (1.5)	
CARPT 278	Advanced Machinery (1.5)	
CARPT 279	Advanced Blueprint Reading for Mill Cabinet (1.5)	
CARPT 280	Advanced Cabinet Making (1.5)	
CARPT 281	Veneers, Laminate, and Finishing (1.5)	
CARPT 282	CAD Basics for Mill Cabinetry (1.5)	
CARPT 283	Introduction to Computer Numeric Control (CNC) (1.5)	
CARPT 284	Solid Surface Material, Fabrication, and Installation (1.5)	
CARPT 285	Advanced Project for Mill Cabinet (1.5)	
A minimum of 16 units from the following:		16
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**37**

The Mill and Cabinet Maker Apprenticeship Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Must be a state registered Mill and Cabinet apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the mill and cabinet carpenter's tools of the trade.
- analyze, interpret, and apply national building codes relating to mill and cabinet carpentry.
- analyze and interpret residential and commercial construction blueprints.
- identify and select appropriate materials for each phase of construction.
- construct and complete an advanced project demonstrating journeymen-level skills.
- apply design elements and principles to create functional and attractive cabinets.

Career Information

Mill and cabinet maker technicians are in high demand. The industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the mill and cabinet maker industry.

A.A. in Pile Driver Apprenticeship

This program concentrates on training Pile Driver apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, welding, and various pile driving topics.

Degree Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
CARPT 240	Worker Safety and Tool Skills for Pile Drivers (1.5)	
CARPT 241	The Pile Driver Apprentice and the Trade with Construction Math (2)	
CARPT 242	Pile Driver Rigging (1.5)	
CARPT 243	Concrete Formwork (1.5)	
CARPT 244	Welding I SMAW (1.5)	
CARPT 245	Introduction to Pile Driving Land and Water (1.5)	
CARPT 246	Welding II SMAW (1.5)	
CARPT 247	Advanced Pile Driving Land and Water (1.5)	
CARPT 248	Wharfage and Marine Structures (1.5)	
CARPT 250	Introduction to Structural Blueprints and Layout Instruments (1.5)	
CARPT 251	Advanced Structural Blueprints and Bridge Building (1.5)	
CARPT 252	Falsework, Shoring, and Heavy Timber Framing (1.5)	
CARPT 253	Advanced Formwork (1.5)	
CARPT 254	Welding III FCAW (1.5)	
CARPT 255	Welding IV FCAW Pipe (1.5)	
CARPT 257	Pile Driving II (1.5)	
A minimum of 16 units from the following:		16
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**37**

The Pile Driver Apprenticeship Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Pile Driver apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the Pile Driver's tools of the trade.
- analyze, interpret, and apply national building codes relating to pile driving.
- analyze and interpret construction blueprints.
- evaluate, lay out, and construct various project types.
- identify and select appropriate materials for each phase of construction.

Career Information

Pile Drivers are in high demand. The construction industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working as Pile Drivers.

A.A. in Scaffold Erector Apprenticeship

This program concentrates on training scaffold erector apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety,

blueprint reading, commercial construction processes, building codes, estimation, welding, and proper scaffold erection.

Degree Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
CARPT 101	Introduction to Apprenticeship II (1.5)	
CARPT 106	Introduction to Apprenticeship I (1.5)	
SCFLD 101	Introduction to Scaffolds (1.5)	
SCFLD 102	Hazard Awareness and Confined Space (1.5)	
SCFLD 107	Rigging Awareness for Scaffold (1.5)	
SCFLD 110	Welded Frame and Mobile Tower Scaffold (1.5)	
SCFLD 111	System Scaffold I - Cuplock (1.5)	
SCFLD 112	System Scaffold II - Safway (1.5)	
SCFLD 113	Systems Scaffold III - Ring Lock (1.5)	
SCFLD 114	Ladder Access and Stair Tower (1.5)	
SCFLD 115	Suspended and Cantilevered Scaffold (1.5)	
SCFLD 116	Scaffold Containment (1.5)	
SCFLD 120	Scaffold Print Reading, Union Benefits, and First Aid (2)	
SCFLD 161	Tiebacks (1.5)	
SCFLD 163	Reshoring (1.5)	
SCFLD 165	Slopes and Vessels (1.5)	
A minimum of 16 units from the following:		16
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**37**

The Scaffold Erector Apprenticeship Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Must be a state registered Scaffold Erector apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the scaffold erector's tools of the trade.
- interpret and apply national building codes relating to scaffold erection.
- interpret residential and commercial construction blueprints.
- evaluate, lay out, and construct various project types.
- identify and select appropriate materials for each phase of construction.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction and maintenance, utilities, and facilities management.

A.A. in Sheet Metal Apprenticeship

The Sheet Metal Apprenticeship certificate concentrates on training apprentices to the specific levels required for the construction industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial processes, building codes, estimation, and various sheet metal topics.

Degree Requirements

Course Code	Course Title	Units
SHME 100	Sheet Metal Apprenticeship I	3.5
SHME 101	Sheet Metal Apprenticeship II	3.5
SHME 110	Sheet Metal Apprenticeship III	3.5
SHME 111	Sheet Metal Apprenticeship IV	3.5
SHME 120	Sheet Metal Apprenticeship V	3.5
SHME 121	Sheet Metal Apprenticeship VI	3.5
SHME 130	Sheet Metal Apprenticeship VII	3.5
SHME 131	Sheet Metal Apprenticeship VIII	3.5
SHME 140	Sheet Metal Apprenticeship IX	3.5
SHME 141	Sheet Metal Apprenticeship X	3.5
SHME 150	Sheet Metal Welding I	3.5
SHME 151	Sheet Metal Welding II	3.5
A minimum of 16 units from the following:		16
SHME 298	Work Experience in Sheet Metal Apprenticeship (0.5 - 6)	
Total Units:		**58**

The Sheet Metal Apprenticeship Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Sheet Metal apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the sheet metal worker's tools of the trade.
- analyze, interpret, and apply national building codes relating to sheet metal construction.
- analyze and interpret residential and commercial construction blueprints.
- acquire skills and knowledge to make a successful transition to a journey-level position in the sheet metal worker trade.
- demonstrate the ability to apply mathematical concepts to the sheet metal trade.
- demonstrate proficiency in the principles, concepts and applications in metal fabrication methods.

Career Information

Upon completion of the Sheet Metal Apprenticeship certificate, students may find employment in the following sectors: government, residential and commercial construction and maintenance, utilities, and facilities management. Students may further their career as a licensed contractor.

A.A. in Sheet Metal Service Technician Apprenticeship

The Sheet Metal Service Technician Apprenticeship Associate of Arts concentrates on training apprentices to the specific levels required for the construction and the heating, ventilation, and air conditioning (HVAC) industries. This program has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial processes, building codes, estimation, and various sheet metal topics. It includes the servicing, start-up, and balancing of HVAC systems.

Degree Requirements

Course Code	Course Title	Units
SHME 100	Sheet Metal Apprenticeship I	3.5
SHME 101	Sheet Metal Apprenticeship II	3.5
SHME 110	Sheet Metal Apprenticeship III	3.5
SHME 111	Sheet Metal Apprenticeship IV	3.5
SMTEC 100	Sheet Metal Service Technician Apprenticeship I	2.5
SMTEC 101	Sheet Metal Service Technician Apprenticeship II	2.5
SMTEC 110	Sheet Metal Service Technician Apprenticeship III	2.5
SMTEC 111	Sheet Metal Service Technician Apprenticeship IV	2.5
SMTEC 120	Sheet Metal Service Technician Apprenticeship V	2.5
SMTEC 121	Sheet Metal Service Technician Apprenticeship VI	2.5
SMTEC 130	Sheet Metal Service Technician Apprenticeship VII	2.5
SMTEC 131	Sheet Metal Service Technician Apprenticeship VIII	2.5
SMTEC 140	Sheet Metal Service Technician Apprenticeship IX	2.5
SMTEC 141	Sheet Metal Service Technician Apprenticeship X	2.5
A minimum of 16 units from the following:		16
SHME 298	Work Experience in Sheet Metal Apprenticeship (0.5 - 6)	
Total Units:		**55**

The Sheet Metal Service Technician Apprenticeship Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Sheet Metal Service Technician apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the sheet metal worker's tools of the trade.

- analyze, interpret, and apply national building codes relating to sheet metal and mechanical construction.
- analyze and interpret residential and commercial construction blueprints.
- demonstrate the proper start-up and balancing of different HVAC systems.
- demonstrate troubleshooting techniques on various HVAC systems.

Career Information

Upon completion of the Sheet Metal Service Technician Apprenticeship certificate, students may find employment in the following sectors: government, residential and commercial construction and maintenance, HVAC servicing, utilities, facilities management, and central plant operations. Students may further their career as a licensed contractor.

A.A. in Steamfitter Apprenticeship

This degree includes the training for steamfitter apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the steamfitter apprenticeship program.

Degree Requirements

Course Code	Course Title	Units
A minimum of 40 units from the following:		40
PLUMB 166	Certification Preparation (2)	
PLUMB 241	Trade Mathematics II (2)	
STMFT 100	OSHA and CPR (2)	
STMFT 101	Use and Care of Tools (2)	
STMFT 103	Related Science in the Piping Trades (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 105	Instrumentation I (2)	
STMFT 109	Union Heritage (3)	
STMFT 110	Beginning Drawing and Plan Reading for the Piping Trades (2)	
STMFT 111	Advanced Drawing in the Piping Trades (2)	
STMFT 113	Beginning AutoCAD for Steamfitters (2)	
STMFT 114	Advanced AutoCAD for Steamfitters (2)	
STMFT 120	Trade Mathematics (2)	
STMFT 130	Pipe Shop I (2)	
STMFT 131	Pipe Shop II (2)	
STMFT 132	Tube Bending (2)	
STMFT 140	Welding Safety and Plate Welding (2)	
STMFT 164	Orbital Welding (2)	
A minimum of 16 units from the following:		16
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**56**

The Steamfitter Apprenticeship Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus the local ARC General Education Requirement, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Steamfitter apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- discuss the role the steamfitter plays in a safe work site.
- demonstrate all the major safety responsibilities of the steamfitter.
- identify types, sizes, and applications of steam piping.
- research proper practice for boiler safety and operation.
- apply the fundamental principles and uses of water/steam and other gases and chemicals in the piping industry.
- apply concepts in temperature, heat, and energy.
- utilize concepts in electricity including safety procedures, measurement, and simple calculations.
- describe the role of the apprenticeship as it relates to union employment.
- demonstrate proper use of basic drawing and measuring tools associated with the piping trade.

- interpret technical drawings and piping and plumbing diagrams in orthographic and isometric views.
- apply the uses and applications of Computer Aided Drafting (CAD).
- identify methods of joining pipes using compression and flanged joints.
- identify fittings, valves, clamps, and tools used in the industry.
- use an Oxy-Fuel torch to cut and weld materials properly and safely.
- use a shielded metal arc welder properly and safely.
- set up and calibrate orbital welders properly.
- describe and apply relevant plumbing codes and laws.
- use formulas to determine areas, angles, and volumes of pipes and vessels.

Career Information

Steamfitters are in high demand. The steamfitter industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the steamfitting industry.

A.A. in Welder Apprenticeship

This degree includes the training for plumber, pipefitter, and steamfitter welders to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the plumber, pipefitter, and steamfitter welder apprenticeship program.

Degree Requirements

Course Code	Course Title	Units
A minimum of 40 units from the following:		40
PLUMB 241	Trade Mathematics II (2)	
STMFT 100	OSHA and CPR (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 110	Beginning Drawing and Plan Reading for the Piping Trades (2)	
STMFT 120	Trade Mathematics (2)	
STMFT 130	Pipe Shop I (2)	
STMFT 131	Pipe Shop II (2)	
STMFT 140	Welding Safety and Plate Welding (2)	
STMFT 141	Oxygen Acetylene Cutting (2)	
STMFT 145	Pipe Welding (2)	
STMFT 150	Welding V (2)	
STMFT 151	Welding VI (2)	
STMFT 152	Welding VII (2)	
STMFT 153	Welding VIII (2)	
STMFT 160	Welding IX (2)	
STMFT 161	Welding X (2)	
STMFT 164	Orbital Welding (2)	
A minimum of 16 units from the following:		16
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**56**

The Welder Apprenticeship Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus the local ARC General Education Requirement, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Welder apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- discuss the role the steamfitter plays in a safe work site.
- demonstrate all the major safety responsibilities of the steamfitter.
- interpret technical drawings and piping and plumbing diagrams in orthographic and isometric views.
- identify types of flanges and gaskets and their common standards, ratings and design.
- identify welding methods and applications.
- identify methods of soldering and joining metals.

- recognize types of brazing methods and their applications.
- use an Oxy-Fuel torch to cut and weld materials properly and safely.
- use a shielded metal arc welder properly and safely.
- solve complex cutting torch problems.
- demonstrate proper set up for and execution of a single overhead vee groove weld.
- demonstrate proper set up for and execution of a single vertical vee groove weld.
- demonstrate proper set up for and execution of a single horizontal vee groove weld.
- create a root bead in a welding coupon in 6G position.
- set up and calibrate orbital welders properly.
- use formulas to determine areas, angles, and volumes of pipes and vessels.

Career Information

Plumber, pipefitter, and steamfitter welders are in high demand. The plumber, pipefitter, and steamfitter industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the plumbing, pipefitting, and steamfitting industry.

A.S. in Millwright Apprenticeship

This degree includes the training required to meet the Division of Apprenticeship Standards (DAS) Journey Worker guidelines for the Millwright apprenticeship program.

Degree Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
CARPT 220	Millwright Tool Skills (1.5)	
CARPT 221	The Millwright Apprentice, the Trade, and 16 Hour Safety (1.5)	
CARPT 222	Millwright Math Applications (1.5)	
CARPT 223	Cutting and Welding I (1.5)	
CARPT 224	Materials of Construction (1.5)	
CARPT 225	Layout Procedures for Millwrights (1.5)	
CARPT 226	Precision Optical Instruments (1.5)	
CARPT 227	Blueprint Reading for Millwrights (1.5)	
CARPT 228	Millwright Rigging (1.5)	
CARPT 229	Welding II SMAW (1.5)	
CARPT 230	Monorails (1.5)	
CARPT 231	Conveyors for Millwrights (1.5)	
CARPT 232	Installation and Maintenance of Machinery (1.5)	
CARPT 234	Precision Tools and Shaft Alignment (1.5)	
CARPT 236	Welding III FCAW (1.5)	
CARPT 237	Compressors (1.5)	
A minimum of 16 units from the following:		16
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**37**

The Millwright Apprenticeship Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Millwright apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate proper procedure for working on turbines.
- prepare a one-inch-thick vertical groove joint that meets American Welding Society (AWS) standards.
- produce the AWS 3G and 4G unlimited thickness practice test with Flux Core Arc Welding (FCAW).
- distinguish alternative energy sources, such as wind, nuclear, and tidal power.
- install machinery safely and effectively at the proper elevation.
- explain the layout and fabrication of header steel and methods for connecting and attaching support steel.
- explain the layout and fabrication of a monorail system.
- identify and explain plasma welding and cutting processes, components, and safety issues.
- demonstrate safe rigging practices, including hand and voice signals.

Career Information

Millwright technicians are in high demand. The millwright industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the millwright industry.

A.S. in Plumbers/Pipefitters Apprenticeship

This degree includes the training for plumber and pipefitter apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the steamfitter apprenticeship program.

Degree Requirements

Course Code	Course Title	Units
A minimum of 40 units from the following:		40
HVACR 101	Electrical Theory I (2)	
PLUMB 100	Introduction to the Trade (4.5)	
PLUMB 110	Plumbing Science, Fixtures, and Rigging (4)	
PLUMB 111	Plumbing Fixtures (2)	
PLUMB 120	Gas Welding and Brazing (2)	
PLUMB 121	Basic Arc Welding and Drawings (4)	
PLUMB 122	Advanced Arc Welding (2)	
PLUMB 130	Gas and Water Supply (4.5)	
PLUMB 131	Water Supply Systems (2)	
PLUMB 140	Advanced Drawings and Drainage (4)	
PLUMB 141	Sewage Disposal (2)	
PLUMB 150	Steamfitting and Pipefitting (6)	
PLUMB 160	Uniform Plumbing Code and Medical Gas (5.5)	
PLUMB 163	Plumbing Code I (2)	
PLUMB 164	Plumbing Code II (2)	
PLUMB 166	Certification Preparation (2)	
PLUMB 168	Medical Gas and Vacuum Systems (2)	
PLUMB 169	Green Awareness (2)	
PLUMB 170	Job Supervision and Foreman Training (4)	
PLUMB 171	Construction Management in Plumbing (2)	
PLUMB 200	Plumbing Tool Workshop I (2)	
PLUMB 201	Plumbing Tool Workshop II (2)	
PLUMB 202	Plumbing Tool Workshop III (2)	
PLUMB 210	Beginning Drawing and Plan Reading for the Piping Trades (2)	
PLUMB 211	Advanced Drawing in the Piping Trades (2)	
PLUMB 212	Blueprint Reading for Plumbing (2)	
PLUMB 240	Trade Mathematics I (3)	
PLUMB 241	Trade Mathematics II (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 109	Union Heritage (3)	
STMFT 113	Beginning AutoCAD for Steamfitters (2)	
STMFT 114	Advanced AutoCAD for Steamfitters (2)	
A minimum of 16 units from the following:		16
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**56**

The Plumbers/Pipefitters Apprenticeship Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Plumbers and Pipefitters apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply hot pass and cover pass procedures.
- perform pipe weld methods in the 2G, 5G, and 6G positions.
- identify personality traits to work effectively with others.
- negotiate difficult workplace situations.
- practice conflict resolution.
- evaluate and develop project schedules.
- draft and properly complete construction documents.
- demonstrate uphill pipe welding method.
- list National Inspection Testing Certification (NITC) requirements for medical gas systems.
- demonstrate ability to apply applicable plumbing codes.

Career Information

Plumbers and pipefitters are in high demand. The plumber and pipefitters industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the plumbing industry.

A.S. in Refrigeration Service Technician Apprenticeship

This degree includes the training for refrigeration service technician apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the refrigeration service technician apprenticeship program.

Degree Requirements

Course Code	Course Title	Units
A minimum of 40 units from the following:		40
HVACR 101	Electrical Theory I (2)	
HVACR 102	Electrical Theory II (2)	
HVACR 110	Mechanical Refrigeration Theory (2)	
HVACR 111	Refrigeration Cycle (2)	
HVACR 120	Intermediate Electrical I (2)	
HVACR 122	Intermediate Electrical II (2)	
HVACR 130	Intermediate Mechanical Refrigeration I (2)	
HVACR 132	Intermediate Mechanical Refrigeration II (2)	
HVACR 140	Electrical Troubleshooting I (2)	
HVACR 142	Electrical Troubleshooting II (2)	
HVACR 144	Introduction to Direct Digital Controls (2)	
HVACR 146	Introduction to Variable Frequency Drives (2)	
HVACR 152	Introduction to Boilers (2)	
HVACR 160	Introduction to Market Refrigeration Systems (2)	
HVACR 161	Introduction to CO2 Systems (2)	
HVACR 165	Brazing and Soldering (2)	
HVACR 170	Start Test Balance Water Side I (2)	
HVACR 171	Start Test Balance Water Side II (2)	
HVACR 173	Start Test Balance Air Side I (2)	
HVACR 174	Start Test Balance Air Side II (2)	
HVACR 176	Title 24 Certification (2)	
PLUMB 101	Introduction to the Refrigeration Fitter Apprenticeship (4.5)	
PLUMB 120	Gas Welding and Brazing (2)	
PLUMB 161	HVACR Start, Test, and Balance (4)	
PLUMB 162	Refrigeration and Customer Service (6)	
PLUMB 180	Supermarket Refrigeration (4)	
PLUMB 181	Refrigeration Controls and Electrical Troubleshooting (3.5)	
PLUMB 182	Refrigeration and Hydronics Piping (4.5)	
PLUMB 190	Air Conditioning Pneumatic and Process Controls (4.5)	
PLUMB 191	Electrical and Direct Digital Controls (4)	
PLUMB 192	Pneumatic Controls and Computer Literacy (4)	

Course Code	Course Title	Units
A minimum of 16 units from the following:		16
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**56**

The Refrigeration Service Technician Apprenticeship Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Refrigeration Service Technician apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- explain safety hazards with Heating Ventilation Air Conditioning Refrigeration (HVACR) systems.
- explain proper design, testing, and balancing of air distribution.
- demonstrate the testing of fluid flow in piping systems.
- explain electrical principles necessary for startup and testing.
- identify proper documentation requirements to report findings during start, test, and balance operations.
- prepare for the proctored UA STAR exam.
- describe methods of maximizing energy efficiency of existing Heating Ventilation Air Conditioning Refrigeration (HVACR) equipment.
- demonstrate a service technician's role in customer service.
- list conditions of air on a psychrometric chart.
- identify jobsite hazards.

Career Information

Refrigeration technicians are in high demand. The refrigeration industry is not able to hire the amount of employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the refrigeration industry.

Certificates of Achievement

Acoustical Installer Apprenticeship Certificate

This program concentrates on training apprentices to the specific levels required for the acoustical installer industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial acoustical installer processes, building codes, estimation, and various carpentry topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
CARPT 106	Introduction to Apprenticeship I (1.5)	
CARPT 141	Suspended Framing Ceiling Systems (1.5)	
CARPT 143	Commercial Steel Framing (1.5)	
CARPT 144	Grid Ceilings I (1.5)	
CARPT 145	Grid Ceilings II (1.5)	
CARPT 146	Specialty Ceiling Systems (1.5)	
CARPT 147	Grid Ceilings III (1.5)	
CARPT 148	Access Floor Systems (1.5)	
CARPT 161	Acoustical Blueprint Reading Basic (1.5)	
CARPT 164	Blueprint Reading Specialized Acoustical (1.5)	
CARPT 166	Acoustical Blueprint Reading Advanced (1.5)	
CARPT 190	Introduction to Welding (1.5)	
CARPT 211	Introduction to Acoustical Apprenticeship II (1.5)	
CARPT 213	Acoustical Exterior Systems (1.5)	
CARPT 214	Wall and Ceiling Fabric Installation (1.5)	
CARPT 215	Specialty Systems (1.5)	
A minimum of 16 units from the following:		16
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**37**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Acoustical Installer apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify the components of a personal fall protection system (PFPS) and a personal fall arrest system (PFAS).
- calculate elevations from information obtained from residential plot and foundation plans.
- calculate contributory leg loads.
- formulate proper layout, cutting, and material installation procedures for the installation of braced and unbraced soffits.
- explain how to install stringer system reinforced perimeter locations, bridge obstructions, and additional bracing.
- extract the information necessary to construct a Photovoltaic support structure using a set of blueprints.
- install an acoustical ceiling conforming with the regulations of the Office of Statewide Health Planning and Development.
- analyze and perform methods of joining and welding plastic materials.
- describe the importance of a construction schedule and daily job log and organize labor in conjunction with the construction schedule.

Career Information

Acoustical technicians are in high demand. The acoustical industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the acoustical industry.

Acoustical Installer Level I Certificate

This program concentrates on training apprentices to the level I requirements for the acoustical installer industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial acoustical installer processes, building codes, estimation, and various carpentry topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 6 units from the following:		6
CARPT 106	Introduction to Apprenticeship I (1.5)	
CARPT 141	Suspended Framing Ceiling Systems (1.5)	
CARPT 143	Commercial Steel Framing (1.5)	
CARPT 144	Grid Ceilings I (1.5)	
CARPT 145	Grid Ceilings II (1.5)	
CARPT 146	Specialty Ceiling Systems (1.5)	
CARPT 147	Grid Ceilings III (1.5)	
CARPT 148	Access Floor Systems (1.5)	
CARPT 161	Acoustical Blueprint Reading Basic (1.5)	
CARPT 164	Blueprint Reading Specialized Acoustical (1.5)	
CARPT 166	Acoustical Blueprint Reading Advanced (1.5)	
CARPT 190	Introduction to Welding (1.5)	
CARPT 211	Introduction to Acoustical Apprenticeship II (1.5)	
CARPT 213	Acoustical Exterior Systems (1.5)	
CARPT 214	Wall and Ceiling Fabric Installation (1.5)	
CARPT 215	Specialty Systems (1.5)	
A minimum of 4 units from the following:		4
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**10**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Acoustical Installer apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify the components of a personal fall protection system (PFPS) and a personal fall arrest system (PFAS).
- describe the importance of a construction schedule and daily job log and organize labor in conjunction with the construction schedule.

Career Information

Acoustical technicians are in high demand. The acoustical industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the acoustical industry.

Acoustical Installer Level II Certificate

This program concentrates on training apprentices to the level II requirements for the acoustical installer industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial acoustical installer processes, building codes, estimation, and various carpentry topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 12 units from the following:		12
CARPT 106	Introduction to Apprenticeship I (1.5)	
CARPT 141	Suspended Framing Ceiling Systems (1.5)	
CARPT 143	Commercial Steel Framing (1.5)	
CARPT 144	Grid Ceilings I (1.5)	
CARPT 145	Grid Ceilings II (1.5)	
CARPT 146	Specialty Ceiling Systems (1.5)	
CARPT 147	Grid Ceilings III (1.5)	
CARPT 148	Access Floor Systems (1.5)	
CARPT 161	Acoustical Blueprint Reading Basic (1.5)	
CARPT 164	Blueprint Reading Specialized Acoustical (1.5)	
CARPT 166	Acoustical Blueprint Reading Advanced (1.5)	
CARPT 190	Introduction to Welding (1.5)	
CARPT 211	Introduction to Acoustical Apprenticeship II (1.5)	
CARPT 213	Acoustical Exterior Systems (1.5)	
CARPT 214	Wall and Ceiling Fabric Installation (1.5)	
CARPT 215	Specialty Systems (1.5)	
A minimum of 8 units from the following:		8
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**20**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Acoustical Installer apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify the components of a personal fall protection system (PFPS) and a personal fall arrest system (PFAS).
- describe the importance of a construction schedule and daily job log and organize labor in conjunction with the construction schedule.
- calculate elevations from information obtained from residential plot and foundation plans.
- calculate contributory leg loads.

Career Information

Acoustical technicians are in high demand. The acoustical industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the acoustical industry.

Acoustical Installer Level III Certificate

This program concentrates on training apprentices to the level III requirements for the acoustical installer industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial acoustical installer processes, building codes, estimation, and various carpentry topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18
CARPT 106	Introduction to Apprenticeship I (1.5)	
CARPT 141	Suspended Framing Ceiling Systems (1.5)	
CARPT 143	Commercial Steel Framing (1.5)	
CARPT 144	Grid Ceilings I (1.5)	
CARPT 145	Grid Ceilings II (1.5)	
CARPT 146	Specialty Ceiling Systems (1.5)	
CARPT 147	Grid Ceilings III (1.5)	
CARPT 148	Access Floor Systems (1.5)	
CARPT 161	Acoustical Blueprint Reading Basic (1.5)	
CARPT 164	Blueprint Reading Specialized Acoustical (1.5)	
CARPT 166	Acoustical Blueprint Reading Advanced (1.5)	
CARPT 190	Introduction to Welding (1.5)	
CARPT 211	Introduction to Acoustical Apprenticeship II (1.5)	
CARPT 213	Acoustical Exterior Systems (1.5)	
CARPT 214	Wall and Ceiling Fabric Installation (1.5)	
CARPT 215	Specialty Systems (1.5)	
A minimum of 12 units from the following:		12
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**30**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Acoustical Installer apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify the components of a personal fall protection system (PFPS) and a personal fall arrest system (PFAS).
- calculate elevations from information obtained from residential plot and foundation plans.
- calculate contributory leg loads.
- describe the importance of a construction schedule and daily job log and organize labor in conjunction with the construction schedule.
- formulate proper layout, cutting, and material installation procedures for the installation of braced and unbraced soffits.
- extract the information necessary to construct a Photovoltaic support structure using a set of blueprints.

Career Information

Acoustical technicians are in high demand. The acoustical industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the acoustical industry.

Carpenter Apprenticeship Certificate

This program concentrates on training apprentices to the specific levels required for the construction industry and has been approved by the State of California Department of Apprenticeship Standards. It includes safety, blueprint reading, residential and commercial construction processes, building codes, estimation, and various carpentry topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
CARPT 101	Introduction to Apprenticeship II (1.5)	
CARPT 106	Introduction to Apprenticeship I (1.5)	
CARPT 107	Rigging (1.5)	
CARPT 110	Foundations and Floors (1.5)	
CARPT 112	Structural Framing (1.5)	
CARPT 114	Concrete Formwork Certification (1.5)	
CARPT 120	Exterior Finish (1.5)	
CARPT 122	Interior Finish (1.5)	
CARPT 130	Layout and Level Instruments (1.5)	
CARPT 140	Interior Systems (1.5)	
CARPT 142	Engineered Structural Systems (1.5)	
CARPT 150	Concrete Bridge Building Certification (1.5)	
CARPT 155	Commercial Concrete (1.5)	
CARPT 160	Blueprint Reading Basic (1.5)	
CARPT 162	Blueprint Reading Advanced (1.5)	
CARPT 180	Stair Building (1.5)	
A minimum of 16 units from the following:		16
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**37**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Carpenter apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the carpenter's tools of the trade.
- analyze, interpret, and apply national building codes relating to carpentry.
- analyze and interpret residential and commercial construction blueprints.
- evaluate, layout, and construct various systems such as floor, wall, roof, and concrete form.
- evaluate and layout a building site using architectural and other related drawings.
- calculate elevations by using an engineer's rod and various leveling devices.
- estimate and order material for construction projects.
- identify and select appropriate materials for each phase of construction.

Career Information

Carpenter technicians are in high demand. The carpenters industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the carpenters industry.

Carpenter Apprenticeship Level I Certificate

This certificate includes the training for carpenters to meet the Division of Apprenticeship Standards (DAS) level I guidelines for the carpenters apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 6 units from the following:		6
CARPT 101	Introduction to Apprenticeship II (1.5)	
CARPT 106	Introduction to Apprenticeship I (1.5)	
CARPT 107	Rigging (1.5)	
CARPT 110	Foundations and Floors (1.5)	
CARPT 112	Structural Framing (1.5)	
CARPT 114	Concrete Formwork Certification (1.5)	
CARPT 120	Exterior Finish (1.5)	
CARPT 122	Interior Finish (1.5)	
CARPT 130	Layout and Level Instruments (1.5)	
CARPT 140	Interior Systems (1.5)	
CARPT 142	Engineered Structural Systems (1.5)	
CARPT 150	Concrete Bridge Building Certification (1.5)	
CARPT 155	Commercial Concrete (1.5)	
CARPT 160	Blueprint Reading Basic (1.5)	
CARPT 162	Blueprint Reading Advanced (1.5)	
CARPT 180	Stair Building (1.5)	
A minimum of 4 units from the following:		4
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**10**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Carpenter apprentice

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the carpenter's tools of the trade.
- develop interpersonal skills with customers, co-workers, and different trades-workers.

Career Information

Carpenters are in high demand. The carpenters industry is not able to hire the amount of employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the carpenters industry.

Carpenter Apprenticeship Level II Certificate

This certificate includes the training for carpenters to meet the Division of Apprenticeship Standards (DAS) level II guidelines for the carpenters apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 9 units from the following:		9
CARPT 101	Introduction to Apprenticeship II (1.5)	
CARPT 106	Introduction to Apprenticeship I (1.5)	
CARPT 107	Rigging (1.5)	
CARPT 110	Foundations and Floors (1.5)	
CARPT 112	Structural Framing (1.5)	
CARPT 114	Concrete Formwork Certification (1.5)	
CARPT 120	Exterior Finish (1.5)	
CARPT 122	Interior Finish (1.5)	
CARPT 130	Layout and Level Instruments (1.5)	
CARPT 140	Interior Systems (1.5)	
CARPT 142	Engineered Structural Systems (1.5)	
CARPT 150	Concrete Bridge Building Certification (1.5)	
CARPT 155	Commercial Concrete (1.5)	
CARPT 160	Blueprint Reading Basic (1.5)	
CARPT 162	Blueprint Reading Advanced (1.5)	
CARPT 180	Stair Building (1.5)	
A minimum of 8 units from the following:		8
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	

Course Code	Course Title	Units
Total Units:		**17**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Carpenter apprentice

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the carpenter's tools of the trade.
- develop interpersonal skills with customers, co-workers, and different trades-workers.
- analyze and interpret residential and commercial construction blueprints.
- analyze, interpret, and apply national building codes relating to carpentry.

Career Information

Carpenters are in high demand. The carpenters industry is not able to hire the amount of employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the carpenters industry.

Carpenter Apprenticeship Level III Certificate

This certificate includes the training for carpenters to meet the Division of Apprenticeship Standards (DAS) level III guidelines for the carpenters apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 12 units from the following:		12
CARPT 101	Introduction to Apprenticeship II (1.5)	
CARPT 106	Introduction to Apprenticeship I (1.5)	
CARPT 107	Rigging (1.5)	
CARPT 110	Foundations and Floors (1.5)	
CARPT 112	Structural Framing (1.5)	
CARPT 114	Concrete Formwork Certification (1.5)	
CARPT 120	Exterior Finish (1.5)	
CARPT 122	Interior Finish (1.5)	
CARPT 130	Layout and Level Instruments (1.5)	
CARPT 140	Interior Systems (1.5)	
CARPT 142	Engineered Structural Systems (1.5)	
CARPT 150	Concrete Bridge Building Certification (1.5)	
CARPT 155	Commercial Concrete (1.5)	
CARPT 160	Blueprint Reading Basic (1.5)	
CARPT 162	Blueprint Reading Advanced (1.5)	
CARPT 180	Stair Building (1.5)	
A minimum of 12 units from the following:		12
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**24**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Carpenter apprentice

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the carpenter's tools of the trade.
- develop interpersonal skills with customers, co-workers, and different trades-workers.
- analyze, interpret, and apply national building codes relating to carpentry.
- analyze and interpret residential and commercial construction blueprints.
- plan projects with given information such as blueprints, specifications, and contract documents.
- evaluate, layout, and construct various systems such as floor, wall, roof, and concrete form.

Career Information

Carpenters are in high demand. The carpenters industry is not able to hire the amount of employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the carpenters industry.

Drywall/Lathing Apprenticeship Certificate

This drywall/lathing apprenticeship certificate concentrates on training apprentices to the specific levels required for the construction industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, metal framing, blueprint reading, exterior/interior wall finishes, welding, residential and commercial construction process, building codes, estimation, and various construction topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
DRLTH 100	Introduction to Apprenticeship I (1.5)	
DRLTH 102	Basic Applications (1.5)	
DRLTH 104	Introduction to Apprenticeship II (1.5)	
DRLTH 112	Doors, Frames, and Hardware of Windows (1.5)	
DRLTH 120	Blueprint Reading I, First Aid, and CPR (1.5)	
DRLTH 121	Blueprint Reading II (1.5)	
DRLTH 122	Blueprint Reading III (1.5)	
DRLTH 130	Welding Light Gauge (1.5)	
DRLTH 131	Welding Heavy Gauge (1.5)	
DRLTH 140	Commercial Framing Systems and Fire Control (1.5)	
DRLTH 141	Building Envelope (1.5)	
DRLTH 142	Exterior Lath Systems and Trims (1.5)	
DRLTH 150	Interior Metal Lath Systems (1.5)	
DRLTH 160	Ceiling Systems (1.5)	
DRLTH 162	Arches, Furring and Advanced Systems (1.5)	
DRLTH 170	Advanced Construction Techniques (1.5)	
A minimum of 16 units from the following:		16
DRLTH 298	Work Experience Drywall/Lathing Apprenticeship (0.5 - 6)	
Total Units:		**37**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Drywall/Lathing apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the drywall/lathing craftsman's tools of the trade.
- analyze, interpret, and apply national building codes relating to the drywall/lathing profession.
- analyze and interpret residential commercial construction blueprints.
- evaluate, lay out, and construct various metal framing systems such as floor, wall, roof, and arches.
- calculate elevations using various leveling devices.
- identify and select appropriate material for each phase of construction.
- estimate and order material for construction projects.
- plan projects using information gathered from sources such as verbal information, written information, customer specifications, and project blueprints.
- install advanced lathing and drywall systems.

Career Information

Drywall/lathing technicians are in high demand. The drywall/lathing industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the drywall/lathing industry.

Drywall/Lathing Level I Certificate

This certificate includes the training for drywall/lathing to meet the Division of Apprenticeship Standards (DAS) level I guidelines for the drywall/lathing apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 6 units from the following:		6
DRLTH 100	Introduction to Apprenticeship I (1.5)	
DRLTH 102	Basic Applications (1.5)	
DRLTH 104	Introduction to Apprenticeship II (1.5)	
DRLTH 112	Doors, Frames, and Hardware of Windows (1.5)	
DRLTH 120	Blueprint Reading I, First Aid, and CPR (1.5)	

Course Code	Course Title	Units
DRLTH 121	Blueprint Reading II (1.5)	
DRLTH 122	Blueprint Reading III (1.5)	
DRLTH 130	Welding Light Gauge (1.5)	
DRLTH 131	Welding Heavy Gauge (1.5)	
DRLTH 140	Commercial Framing Systems and Fire Control (1.5)	
DRLTH 141	Building Envelope (1.5)	
DRLTH 142	Exterior Lath Systems and Trims (1.5)	
DRLTH 150	Interior Metal Lath Systems (1.5)	
DRLTH 160	Ceiling Systems (1.5)	
DRLTH 162	Arches, Furring and Advanced Systems (1.5)	
DRLTH 170	Advanced Construction Techniques (1.5)	
A minimum of 4 units from the following:		4
DRLTH 298	Work Experience Drywall/Lathing Apprenticeship (0.5 - 6)	
Total Units:		**10**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Drywall/Lathing apprentice

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the drywall/lathing craftsman's tools of the trade.
- calculate elevations using various leveling devices.

Career Information

Drywall/lathing technicians are in high demand. The drywall/lathing industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the drywall/lathing industry.

Drywall/Lathing Level II Certificate

This certificate includes the training for drywall/lathing to meet the Division of Apprenticeship Standards (DAS) level II guidelines for the drywall/lathing apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 12 units from the following:		12
DRLTH 100	Introduction to Apprenticeship I (1.5)	
DRLTH 102	Basic Applications (1.5)	
DRLTH 104	Introduction to Apprenticeship II (1.5)	
DRLTH 112	Doors, Frames, and Hardware of Windows (1.5)	
DRLTH 120	Blueprint Reading I, First Aid, and CPR (1.5)	
DRLTH 121	Blueprint Reading II (1.5)	
DRLTH 122	Blueprint Reading III (1.5)	
DRLTH 130	Welding Light Gauge (1.5)	
DRLTH 131	Welding Heavy Gauge (1.5)	
DRLTH 140	Commercial Framing Systems and Fire Control (1.5)	
DRLTH 141	Building Envelope (1.5)	
DRLTH 142	Exterior Lath Systems and Trims (1.5)	
DRLTH 150	Interior Metal Lath Systems (1.5)	
DRLTH 160	Ceiling Systems (1.5)	
DRLTH 162	Arches, Furring and Advanced Systems (1.5)	
DRLTH 170	Advanced Construction Techniques (1.5)	
A minimum of 8 units from the following:		8
DRLTH 298	Work Experience Drywall/Lathing Apprenticeship (0.5 - 6)	
Total Units:		**20**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Drywall/Lathing apprentice

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the drywall/lathing craftsman's tools of the trade.
- calculate elevations using various leveling devices.
- identify and select appropriate material for each phase of construction.
- evaluate, lay out, and construct various metal framing systems such as floor, wall, roof, and arches.

Career Information

Drywall/lathing technicians are in high demand. The drywall/lathing industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the drywall/lathing industry.

Drywall/Lathing Level III Certificate

This certificate includes the training for drywall/lathing to meet the Division of Apprenticeship Standards (DAS) level III guidelines for the drywall/lathing apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18
DRLTH 100	Introduction to Apprenticeship I (1.5)	
DRLTH 102	Basic Applications (1.5)	
DRLTH 104	Introduction to Apprenticeship II (1.5)	
DRLTH 112	Doors, Frames, and Hardware of Windows (1.5)	
DRLTH 120	Blueprint Reading I, First Aid, and CPR (1.5)	
DRLTH 121	Blueprint Reading II (1.5)	
DRLTH 122	Blueprint Reading III (1.5)	
DRLTH 130	Welding Light Gauge (1.5)	
DRLTH 131	Welding Heavy Gauge (1.5)	
DRLTH 140	Commercial Framing Systems and Fire Control (1.5)	
DRLTH 141	Building Envelope (1.5)	
DRLTH 142	Exterior Lath Systems and Trims (1.5)	
DRLTH 150	Interior Metal Lath Systems (1.5)	
DRLTH 160	Ceiling Systems (1.5)	
DRLTH 162	Arches, Furring and Advanced Systems (1.5)	
DRLTH 170	Advanced Construction Techniques (1.5)	
A minimum of 12 units from the following:		12
DRLTH 298	Work Experience Drywall/Lathing Apprenticeship (0.5 - 6)	
Total Units:		**30**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Drywall/Lathing apprentice

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the drywall/lathing craftsman's tools of the trade.
- calculate elevations using various leveling devices.
- evaluate, lay out, and construct various metal framing systems such as floor, wall, roof, and arches.
- identify and select appropriate material for each phase of construction.
- estimate and order material for construction projects.

Career Information

Drywall/lathing technicians are in high demand. The drywall/lathing industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the drywall/lathing industry.

Electrical Apprenticeship Certificate

This program provides instruction in the installation, operation, and maintenance of the electrical distribution systems in commercial and industrial sites. Topics include safety training, AC and DC electrical theory, metering, electronics, use of electrical codes, raceways, conductors, grounding, motors, transformers, fire alarm systems, fiber optics, instrumentation, building automation and heating, ventilating and air conditioning (HVAC) systems.

Certificate Requirements

Course Code	Course Title	Units
ELECT 110	Electrical Apprenticeship I	5
ELECT 111	Electrical Apprenticeship II	3
ELECT 120	Electrical Apprenticeship III	3
ELECT 121	Electrical Apprenticeship IV	3
ELECT 130	Electrical Apprenticeship V	3
ELECT 131	Electrical Apprenticeship VI	3
ELECT 140	Electrical Apprenticeship VII	3
ELECT 141	Electrical Apprenticeship VIII	3
ELECT 150	Electrical Apprenticeship IX	3
ELECT 151	Electrical Apprenticeship X	3
A minimum of 16 units from the following:		16
ELECT 298	Work Experience in Electricians Apprenticeship (0.5 - 4)	
Total Units:		**48**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered electrical apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply commercial and industrial safety procedures on job sites.
- analyze, interpret and apply national, state and local electrical codes.
- apply electrical mathematics in calculating resistance, current, voltage, and power in a DC series circuit.
- demonstrate use of meters to confirm electrical calculations and to troubleshoot AC and DC circuits.
- analyze, identify, and evaluate electrical mathematics in RL, RC, LC, and RLC series, parallel, and combination circuits.
- describe and apply the requirements of Occupational Safety and Health Administration (OSHA) and National Fire Protection Association (NFPA) 70E work practices.
- define principles of basic AC and DC motor theory.

Career Information

Upon completion of the electrical program, students may find employment in the following sectors: government, commercial and industrial construction and maintenance, utilities, and facilities management.

Electrical Apprenticeship Level I Certificate

This program concentrates on training apprentices to the level I requirements for the electrical industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial electrical processes, building codes, estimation, and various electrical topics.

Certificate Requirements

Course Code	Course Title	Units
ELECT 110	Electrical Apprenticeship I	5
ELECT 111	Electrical Apprenticeship II	3
A minimum of 4 units from the following:		4
ELECT 298	Work Experience in Electricians Apprenticeship (0.5 - 6)	
Total Units:		**12**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered electrical apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply commercial and industrial safety procedures on job sites.
- analyze, interpret and apply national, state and local electrical codes.
- apply electrical mathematics in calculating resistance, current, voltage, and power in a DC series circuit.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction, and utilities.

Electrical Apprenticeship Level II Certificate

This program concentrates on training apprentices to the level II requirements for the electrical industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial electrical processes, building codes, estimation, and various electrical topics.

Certificate Requirements

Course Code	Course Title	Units
ELECT 120	Electrical Apprenticeship III	3
ELECT 121	Electrical Apprenticeship IV	3
A minimum of 12 units from the following:		12
Electrical Apprenticeship Level I		
A minimum of 4 units from the following:		4
ELECT 298	Work Experience in Electricians Apprenticeship (0.5 - 6)	

Course Code	Course Title	Units
Total Units:		**22**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered electrical apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate use of meters to confirm electrical calculations and to troubleshoot AC and DC circuits.
- apply codeology principles to locate information in the National Electrical Code (NEC).
- analyze, identify, and evaluate electrical mathematics in RL, RC, LC, and RLC series, parallel, and combination circuits.
- demonstrate proper conduit bends using a ratcheting and mechanical bender.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction, and utilities.

Electrical Apprenticeship Level III Certificate

This program concentrates on training apprentices to the level III requirements for the electrical industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial electrical processes, building codes, estimation, and various electrical topics.

Certificate Requirements

Course Code	Course Title	Units
ELECT 130	Electrical Apprenticeship V	3
ELECT 131	Electrical Apprenticeship VI	3
A minimum of 22 units from the following:		22
Electrical Apprenticeship Level II		
A minimum of 4 units from the following:		4
ELECT 298	Work Experience in Electricians Apprenticeship (0.5 - 6)	
Total Units:		**32**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered electrical apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe and apply the requirements of Occupational Safety and Health Administration (OSHA) and National Fire Protection Association (NFPA) 70E work practices.
- draw a basic 8-pin and 11-pin relay wiring layout and properly wire it in a simple motor control circuit.
- demonstrate proper terminations of a three-phase transformer.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction, and utilities.

Electrical Apprenticeship Level IV Certificate

This program concentrates on training apprentices to the level IV requirements for the electrical industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial electrical processes, building codes, estimation, and various electrical topics.

Certificate Requirements

Course Code	Course Title	Units
ELECT 140	Electrical Apprenticeship VII	3
ELECT 141	Electrical Apprenticeship VIII	3
A minimum of 32 units from the following:		32
Electrical Apprenticeship Level III		
A minimum of 4 units from the following:		4
ELECT 298	Work Experience in Electricians Apprenticeship (0.5 - 6)	
Total Units:		**42**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered electrical apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate proper wiring of motor control systems.
- define principles of basic AC and DC motor theory.
- apply National Electrical Manufacturers Association (NEMA) standards for sizing motor starters and controllers.
- develop a basic programmable logic controller (PLC) program to control a motor control process.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction, and utilities.

Elevator Apprenticeship Certificate

This program concentrates on training elevator apprentices to the specific levels required for the elevator industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, welding, and various elevator topics.

Certificate Requirements

Course Code	Course Title	Units
ELEVA 101	Elevator Trade Skills	3
ELEVA 102	Elevator Hoistway Structures	3
ELEVA 103	Elevator Electrical Fundamentals	4
ELEVA 104	Elevator Electrical Theory and Application	3
ELEVA 105	Elevator Installation	4
ELEVA 106	Elevator Solid State Electronics	4
ELEVA 107	Elevator Power and Logic	3
ELEVA 108	Advanced Topics in Elevators	4
A minimum of 16 units from the following:		16
ELEVA 298	Work Experience in Elevator Apprenticeship (0.5 - 6)	
Total Units:		**44**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Elevator apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate appropriate behavior in the workplace to prevent harassment and discrimination.
- demonstrate material handling and how to rig and hoist heavy elevator equipment.
- solve mathematical and algebraic equations that pertain to voltage, current, and resistance in electrical theory (Ohm's Law).
- compare basic magnetism and electromagnetism, including Domain Theory.
- interpret the electrical inductance of transformers and the functions of step-down and step-up transformers.
- research how capacitors and capacitance, inductors and inductance, and diodes pertain to the elevator industry.
- define relays and timers, power and power control, as well as logic controls pertaining to elevator control systems.
- describe the components and installation procedures for installing and maintaining escalators.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction, and utilities.

Elevator Apprenticeship Level I Certificate

This program concentrates on training apprentices to the level I requirements for the elevator industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial elevator processes, building codes, estimation, and various elevator topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 6 units from the following:		6
ELEVA 101	Elevator Trade Skills (3)	

Course Code	Course Title	Units
ELEVA 102	Elevator Hoistway Structures (3)	
ELEVA 103	Elevator Electrical Fundamentals (4)	
ELEVA 104	Elevator Electrical Theory and Application (3)	
ELEVA 105	Elevator Installation (4)	
ELEVA 106	Elevator Solid State Electronics (4)	
ELEVA 107	Elevator Power and Logic (3)	
ELEVA 108	Advanced Topics in Elevators (4)	
A minimum of 4 units from the following:		4
ELEVA 298	Work Experience in Elevator Apprenticeship (0.5 - 6)	
Total Units:		**10**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Elevator apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- explain the basic tools and tasks pertaining to the elevator trade.
- exhibit the basic skills needed to conduct themselves in a professional matter, in order to be a successful elevator apprentice.
- express knowledge in basic mathematics, measurement, print reading, and safety pertaining to the elevator industry.
- employ construction safety standards prescribed by OSHA and apply safe working practices and procedures relevant to elevator work.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction, and utilities.

Elevator Apprenticeship Level II Certificate

This program concentrates on training apprentices to the level II requirements for the elevator industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial elevator processes, building codes, estimation, and various elevator topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 12 units from the following:		12
ELEVA 101	Elevator Trade Skills (3)	
ELEVA 102	Elevator Hoistway Structures (3)	
ELEVA 103	Elevator Electrical Fundamentals (4)	
ELEVA 104	Elevator Electrical Theory and Application (3)	
ELEVA 105	Elevator Installation (4)	
ELEVA 106	Elevator Solid State Electronics (4)	
ELEVA 107	Elevator Power and Logic (3)	
ELEVA 108	Advanced Topics in Elevators (4)	
A minimum of 8 units from the following:		8
ELEVA 298	Work Experience in Elevator Apprenticeship (0.5 - 6)	
Total Units:		**20**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Elevator apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- explain the basic tools and tasks pertaining to the elevator trade.
- exhibit the basic skills needed to conduct themselves in a professional matter, in order to be a successful elevator apprentice.
- express knowledge in basic mathematics, measurement, print reading, and safety pertaining to the elevator industry.
- employ construction safety standards prescribed by OSHA and apply safe working practices and procedures relevant to elevator work.
- plan how to build and install essential elevator hoistway, pit, and machine room structures.
- solve mathematical and algebraic equations that pertain to voltage, current, and resistance in electrical theory (Ohm's Law).

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction, and utilities.

Elevator Apprenticeship Level III Certificate

This program concentrates on training apprentices to the level III requirements for the elevator industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial elevator processes, building codes, estimation, and various elevator topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18
ELEVA 101	Elevator Trade Skills (3)	
ELEVA 102	Elevator Hoistway Structures (3)	
ELEVA 103	Elevator Electrical Fundamentals (4)	
ELEVA 104	Elevator Electrical Theory and Application (3)	
ELEVA 105	Elevator Installation (4)	
ELEVA 106	Elevator Solid State Electronics (4)	
ELEVA 107	Elevator Power and Logic (3)	
ELEVA 108	Advanced Topics in Elevators (4)	
A minimum of 12 units from the following:		12
ELEVA 298	Work Experience in Elevator Apprenticeship (0.5 - 6)	
Total Units:		**30**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Elevator apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- explain the basic tools and tasks pertaining to the elevator trade.
- exhibit the basic skills needed to conduct themselves in a professional matter, in order to be a successful elevator apprentice.
- express knowledge in basic mathematics, measurement, print reading, and safety pertaining to the elevator industry.
- employ construction safety standards prescribed by OSHA and apply safe working practices and procedures relevant to elevator work.
- plan how to build and install essential elevator hoistway, pit, and machine room structures.
- solve mathematical and algebraic equations that pertain to voltage, current, and resistance in electrical theory (Ohm's Law).
- interpret the electrical inductance of transformers and the functions of step-down and step-up transformers.
- demonstrate how to install and maintain passenger and freight doors, entrances and operators.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction, and utilities.

Elevator Apprenticeship Level IV Certificate

This program concentrates on training apprentices to the level IV requirements for the elevator industry and has been approved by the State of California Department of Apprenticeship Standards (DAS). Training emphasis includes safety, blueprint reading, residential and commercial elevator processes, building codes, estimation, and various elevator topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 24 units from the following:		24
ELEVA 101	Elevator Trade Skills (3)	
ELEVA 102	Elevator Hoistway Structures (3)	
ELEVA 103	Elevator Electrical Fundamentals (4)	
ELEVA 104	Elevator Electrical Theory and Application (3)	
ELEVA 105	Elevator Installation (4)	
ELEVA 106	Elevator Solid State Electronics (4)	
ELEVA 107	Elevator Power and Logic (3)	
ELEVA 108	Advanced Topics in Elevators (4)	
A minimum of 16 units from the following:		16
ELEVA 298	Work Experience in Elevator Apprenticeship (0.5 - 6)	
Total Units:		**40**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Elevator apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- explain the basic tools and tasks pertaining to the elevator trade.
- exhibit the basic skills needed to conduct themselves in a professional matter, in order to be a successful elevator apprentice.
- express knowledge in basic mathematics, measurement, print reading, and safety pertaining to the elevator industry.
- employ construction safety standards prescribed by OSHA and apply safe working practices and procedures relevant to elevator work.
- plan how to build and install essential elevator hoistway, pit, and machine room structures.
- solve mathematical and algebraic equations that pertain to voltage, current, and resistance in electrical theory (Ohm's Law).
- interpret the electrical inductance of transformers and the functions of step-down and step-up transformers.
- demonstrate how to install and maintain passenger and freight doors, entrances, and operators.
- diagnose hydraulic controllers.
- evaluate how capacitors and capacitance, inductors and inductance, and diodes pertain to the elevator industry.
- diagnose digital and analog control systems.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction, and utilities.

Hardwood Floor Layer Apprenticeship Certificate

This program concentrates on training hardwood floor layer apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, and various hardwood floor layer topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
INSTL 100	Orientation and OSHA 10 (1.5)	
INSTL 102	Substrate Preparation (1.5)	
INSTL 103	Concrete Polishing (1.5)	
INSTL 104	Adhesives and Layout (1.5)	
INSTL 105	Wall Base (1.5)	
INSTL 106	Introduction to Resilient (1.5)	
INSTL 107	Complex Layout (1.5)	
INSTL 110	Resilient Linoleum (1.5)	
INSTL 111	Hardwood Installation (1.5)	
INSTL 112	Glue Down Carpet Installation (1.5)	
INSTL 113	Stretch-In Carpet Installation (1.5)	
INSTL 114	Introduction to Flash Cove (1.5)	
INSTL 115	Resilient Flash Cove (1.5)	
INSTL 120	Hardwood Sand and Finish (1.5)	
INSTL 121	Advanced Heat Welding (1.5)	
INSTL 122	Resilient Stairs (1.5)	
INSTL 123	Polished Overlay (1.5)	
INSTL 124	Carpet Stairs (1.5)	
INSTL 125	Turf and Rugmaking (1.5)	
INSTL 126	Custom Insets (1.5)	
A minimum of 16 units from the following:		16
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
CARPT 498	Work Experience in Carpenters Apprenticeship (0.5 - 4)	
INSTL 298	Work Experience in Flooring Install Carpentry Apprenticeship (0.5 - 6)	
Total Units:		**37**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a state registered Hardwood Floor Layer apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.

- demonstrate proper selection, use, care, preparation, and handling of the hardwood floor layer tools of the trade.
- analyze, interpret, and apply national building codes relating to hardwood floor laying.
- analyze and interpret construction blueprints.
- evaluate, lay out, and construct various project types.
- identify and select appropriate materials for each phase of construction.

Career Information

Hardwood floor layer technicians are in high demand. The hardwood floor layer industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the hardwood floor layer industry.

Hardwood Floor Layer Level I Certificate

This program concentrates on training hardwood floor layer apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, and various hardwood floor layer topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 6 units from the following:		6
INSTL 100	Orientation and OSHA 10 (1.5)	
INSTL 102	Substrate Preparation (1.5)	
INSTL 103	Concrete Polishing (1.5)	
INSTL 104	Adhesives and Layout (1.5)	
INSTL 105	Wall Base (1.5)	
INSTL 106	Introduction to Resilient (1.5)	
INSTL 107	Complex Layout (1.5)	
INSTL 110	Resilient Linoleum (1.5)	
INSTL 111	Hardwood Installation (1.5)	
INSTL 112	Glue Down Carpet Installation (1.5)	
INSTL 113	Stretch-In Carpet Installation (1.5)	
INSTL 114	Introduction to Flash Cove (1.5)	
INSTL 115	Resilient Flash Cove (1.5)	
INSTL 120	Hardwood Sand and Finish (1.5)	
INSTL 121	Advanced Heat Welding (1.5)	
INSTL 122	Resilient Stairs (1.5)	
INSTL 123	Polished Overlay (1.5)	
INSTL 124	Carpet Stairs (1.5)	
INSTL 125	Turf and Rugmaking (1.5)	
INSTL 126	Custom Insets (1.5)	
A minimum of 4 units from the following:		4
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
CARPT 498	Work Experience in Carpenters Apprenticeship (0.5 - 4)	
INSTL 298	Work Experience in Flooring Install Carpentry Apprenticeship (0.5 - 6)	
Total Units:		**10**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a state registered Hardwood Floor Layer apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the hardwood floor layer tools of the trade.
- analyze, interpret, and apply national building codes relating to hardwood floor laying.
- analyze and interpret construction blueprints.
- evaluate, lay out, and construct various project types.
- identify and select appropriate materials for each phase of construction.

Career Information

Hardwood floor layer technicians are in high demand. The hardwood floor layer industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the hardwood floor layer industry.

Hardwood Floor Layer Level II Certificate

This program concentrates on training hardwood floor layer apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, and various hardwood floor layer topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 12 units from the following:		12
INSTL 100	Orientation and OSHA 10 (1.5)	
INSTL 102	Substrate Preparation (1.5)	
INSTL 103	Concrete Polishing (1.5)	
INSTL 104	Adhesives and Layout (1.5)	
INSTL 105	Wall Base (1.5)	
INSTL 106	Introduction to Resilient (1.5)	
INSTL 107	Complex Layout (1.5)	
INSTL 110	Resilient Linoleum (1.5)	
INSTL 111	Hardwood Installation (1.5)	
INSTL 112	Glue Down Carpet Installation (1.5)	
INSTL 113	Stretch-In Carpet Installation (1.5)	
INSTL 114	Introduction to Flash Cove (1.5)	
INSTL 115	Resilient Flash Cove (1.5)	
INSTL 120	Hardwood Sand and Finish (1.5)	
INSTL 121	Advanced Heat Welding (1.5)	
INSTL 122	Resilient Stairs (1.5)	
INSTL 123	Polished Overlay (1.5)	
INSTL 124	Carpet Stairs (1.5)	
INSTL 125	Turf and Rugmaking (1.5)	
INSTL 126	Custom Insets (1.5)	
A minimum of 8 units from the following:		8
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
CARPT 498	Work Experience in Carpenters Apprenticeship (0.5 - 4)	
INSTL 298	Work Experience in Flooring Install Carpentry Apprenticeship (0.5 - 6)	
Total Units:		**20**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a state registered Hardwood Floor Layer apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the hardwood floor layer tools of the trade.
- analyze, interpret, and apply national building codes relating to hardwood floor laying.
- analyze and interpret construction blueprints.
- evaluate, lay out, and construct various project types.
- identify and select appropriate materials for each phase of construction.

Career Information

Hardwood floor layer technicians are in high demand. The hardwood floor layer industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the hardwood floor layer industry.

Hardwood Floor Layer Level III Certificate

This program concentrates on training hardwood floor layer apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, and various hardwood floor layer topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18
INSTL 100	Orientation and OSHA 10 (1.5)	
INSTL 102	Substrate Preparation (1.5)	
INSTL 103	Concrete Polishing (1.5)	
INSTL 104	Adhesives and Layout (1.5)	
INSTL 105	Wall Base (1.5)	
INSTL 106	Introduction to Resilient (1.5)	
INSTL 107	Complex Layout (1.5)	

Course Code	Course Title	Units
INSTL 110	Resilient Linoleum (1.5)	
INSTL 111	Hardwood Installation (1.5)	
INSTL 112	Glue Down Carpet Installation (1.5)	
INSTL 113	Stretch-In Carpet Installation (1.5)	
INSTL 114	Introduction to Flash Cove (1.5)	
INSTL 115	Resilient Flash Cove (1.5)	
INSTL 120	Hardwood Sand and Finish (1.5)	
INSTL 121	Advanced Heat Welding (1.5)	
INSTL 122	Resilient Stairs (1.5)	
INSTL 123	Polished Overlay (1.5)	
INSTL 124	Carpet Stairs (1.5)	
INSTL 125	Turf and Rugmaking (1.5)	
INSTL 126	Custom Insets (1.5)	
A minimum of 12 units from the following:		12
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
CARPT 498	Work Experience in Carpenters Apprenticeship (0.5 - 4)	
INSTL 298	Work Experience in Flooring Install Carpentry Apprenticeship (0.5 - 6)	
Total Units:		**30**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a state registered Hardwood Floor Layer apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the hardwood floor layer tools of the trade.
- analyze, interpret, and apply national building codes relating to hardwood floor laying.
- analyze and interpret construction blueprints.
- evaluate, lay out, and construct various project types.
- identify and select appropriate materials for each phase of construction.

Career Information

Hardwood floor layer technicians are in high demand. The hardwood floor layer industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the hardwood floor layer industry.

Insulator Apprenticeship Certificate

This program concentrates on training insulator apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, and various insulator topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 15 units from the following:		15
CARPT 101	Introduction to Apprenticeship II (1.5)	
CARPT 106	Introduction to Apprenticeship I (1.5)	
INSUL 120	Blueprint for Insulator I (1.5)	
INSUL 124	Advanced Submittal and Blueprint with Plan Grid and Field Wire (1.5)	
INSUL 161	Residential Insulation Blow-In (1.5)	
INSUL 163	Spray In Foam Application (1.5)	
INSUL 165	Thermal Insulation Sprayed (1.5)	
INSUL 181	Walls, Slabs, and Joints (1.5)	
INSUL 183	Expansion Joints (1.5)	
INSUL 191	Introduction to Firestop (1.5)	
INSUL 193	Fire Proofing (1.5)	
INSUL 195	Fire Stop II Specialty Systems (1.5)	
A minimum of 12 units from the following:		12
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**27**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Must be a state registered Insulator apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the insulator's tools of the trade.
- evaluate, lay out, and construct various project types.

Career Information

Insulator technicians are in high demand. The insulator industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the insulator industry.

Insulator Apprenticeship Level I Certificate

This program concentrates on training insulator apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, and various insulator topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 6 units from the following:		6
CARPT 101	Introduction to Apprenticeship II (1.5)	
CARPT 106	Introduction to Apprenticeship I (1.5)	
INSUL 120	Blueprint for Insulator I (1.5)	
INSUL 124	Advanced Submittal and Blueprint with Plan Grid and Field Wire (1.5)	
INSUL 161	Residential Insulation Blow-In (1.5)	
INSUL 163	Spray In Foam Application (1.5)	
INSUL 165	Thermal Insulation Sprayed (1.5)	
INSUL 181	Walls, Slabs, and Joints (1.5)	
INSUL 183	Expansion Joints (1.5)	
INSUL 191	Introduction to Firestop (1.5)	
INSUL 193	Fire Proofing (1.5)	
INSUL 195	Fire Stop II Specialty Systems (1.5)	
A minimum of 4 units from the following:		4
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
INSUL 298	Work Experience in Insulator Apprenticeship (0.5 - 6)	
Total Units:		**10**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a state registered Insulator apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the insulator's tools of the trade.
- evaluate, lay out, and construct various project types.

Career Information

Insulator technicians are in high demand. The insulator industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the insulator industry.

Insulator Apprenticeship Level II Certificate

This program concentrates on training insulator apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, and various insulator topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 12 units from the following:		12
CARPT 101	Introduction to Apprenticeship II (1.5)	
CARPT 106	Introduction to Apprenticeship I (1.5)	
INSUL 120	Blueprint for Insulator I (1.5)	

Course Code	Course Title	Units
INSUL 124	Advanced Submittal and Blueprint with Plan Grid and Field Wire (1.5)	
INSUL 161	Residential Insulation Blow-In (1.5)	
INSUL 163	Spray In Foam Application (1.5)	
INSUL 165	Thermal Insulation Sprayed (1.5)	
INSUL 181	Walls, Slabs, and Joints (1.5)	
INSUL 183	Expansion Joints (1.5)	
INSUL 191	Introduction to Firestop (1.5)	
INSUL 193	Fire Proofing (1.5)	
INSUL 195	Fire Stop II Specialty Systems (1.5)	
A minimum of 8 units from the following:		8
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
INSUL 298	Work Experience in Insulator Apprenticeship (0.5 - 6)	
Total Units:		**20**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a state registered Insulator apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the insulator's tools of the trade.
- evaluate, lay out, and construct various project types.

Career Information

Insulator technicians are in high demand. The insulator industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the insulator industry.

Ironworkers Apprenticeship Certificate

This program includes training for Field Ironworkers and Reinforcing Ironworkers, provided in major ironworker components to meet Division of Apprenticeship Standards (DAS) guidelines.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
IW 100	Orientation and History of the Trade (2)	
IW 101	OSHA 30 for Ironworkers (2)	
IW 110	Mixed Base (1.5)	
IW 120	Rigging (1.5)	
IW 130	Reinforcing I (1.5)	
IW 131	Reinforcing II/Post Tensioning (1.5)	
IW 140	Precast Concrete and Metal Buildings (1.5)	
IW 150	Welding I (1.5)	
IW 151	Welding II (1.5)	
IW 152	Welding III (1.5)	
IW 158	Advanced Welding Shop (0.5 - 16)	
IW 160	Lead Hazard (2)	
IW 170	Structural I (1.5)	
IW 171	Structural II (1.5)	
IW 180	Architectural/Ornamental I (1.5)	
IW 183	The History of Ironworkers (3)	
IW 186	Architectural/Ornamental II (1.5)	
A minimum of 16 units from the following:		16
IW 298	Work Experience in Ironworkers Apprenticeship (0.5 - 6)	
Total Units:		**37**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Ironworker apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- analyze and interpret blueprints.
- interpret and apply welding codes.
- demonstrate proper selection, use, care, preparation, and handling of fiber lines, steel cables, wire ropes, chains, slings, cranes, ladders, scaffolds, and helicopter rigging.
- define, identify, interpret, and analyze Uniform Building Codes (UBC), classifications, plans, schedules, charts, and specifications commonly used in the ironworker trade.

- describe and apply reinforcing techniques and principles to concrete structures using steel, bar supports, bar splicing, and welding.
- perform proper structural steel erection on bridges, overpasses, and large buildings.
- weld various ferrous metals using common welding processes and safety guidelines.
- set cable tensions and pre-stress reinforcing steel to industry standards.

Ironworkers Apprenticeship Level I Certificate

This program concentrates on training apprentices to the level I requirements for the ironworkers industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial ironworkers processes, building codes, estimation, and various ironworkers topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 6 units from the following:		6
IW 100	Orientation and History of the Trade (2)	
IW 101	OSHA 30 for Ironworkers (2)	
IW 110	Mixed Base (1.5)	
IW 120	Rigging (1.5)	
IW 130	Reinforcing I (1.5)	
IW 131	Reinforcing II/Post Tensioning (1.5)	
IW 140	Precast Concrete and Metal Buildings (1.5)	
IW 150	Welding I (1.5)	
IW 151	Welding II (1.5)	
IW 152	Welding III (1.5)	
IW 158	Advanced Welding Shop (0.5 - 16)	
IW 160	Lead Hazard (2)	
IW 170	Structural I (1.5)	
IW 171	Structural II (1.5)	
IW 180	Architectural/Ornamental I (1.5)	
IW 183	The History of Ironworkers (3)	
IW 186	Architectural/Ornamental II (1.5)	
A minimum of 4 units from the following:		4
IW 298	Work Experience in Ironworkers Apprenticeship (0.5 - 6)	
Total Units:		**10**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Ironworker apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safely working in a field construction environment.
- analyze and interpret blueprints.
- interpret and apply welding codes.

Career Information

Ironworker technicians are in high demand. The ironworkers industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the ironworkers industry.

Ironworkers Apprenticeship Level II Certificate

This program concentrates on training apprentices to the level II requirements for the ironworkers industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial ironworkers processes, building codes, estimation, and various ironworkers topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 12 units from the following:		12
IW 100	Orientation and History of the Trade (2)	
IW 101	OSHA 30 for Ironworkers (2)	
IW 110	Mixed Base (1.5)	
IW 120	Rigging (1.5)	
IW 130	Reinforcing I (1.5)	
IW 131	Reinforcing II/Post Tensioning (1.5)	
IW 140	Precast Concrete and Metal Buildings (1.5)	
IW 150	Welding I (1.5)	
IW 151	Welding II (1.5)	
IW 152	Welding III (1.5)	
IW 158	Advanced Welding Shop (0.5 - 16)	

Course Code	Course Title	Units
IW 160	Lead Hazard (2)	
IW 170	Structural I (1.5)	
IW 171	Structural II (1.5)	
IW 180	Architectural/Ornamental I (1.5)	
IW 183	The History of Ironworkers (3)	
IW 186	Architectural/Ornamental II (1.5)	
A minimum of 8 units from the following:		8
IW 298	Work Experience in Ironworkers Apprenticeship (0.5 - 6)	
Total Units:		**20**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Ironworker apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safely working in a field construction environment.
- analyze and interpret blueprints.
- interpret and apply welding codes.
- demonstrate proper selection, use, care, preparation, and handling of fiber lines, steel cables, wire ropes, chains, slings, cranes, ladders, scaffolds, and helicopter rigging.

Career Information

Ironworker technicians are in high demand. The ironworkers industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the ironworkers industry.

Ironworkers Apprenticeship Level III Certificate

This program concentrates on training apprentices to the level III requirements for the ironworkers industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial ironworkers processes, building codes, estimation, and various ironworkers topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 16 units from the following:		16
IW 100	Orientation and History of the Trade (2)	
IW 101	OSHA 30 for Ironworkers (2)	
IW 110	Mixed Base (1.5)	
IW 120	Rigging (1.5)	
IW 130	Reinforcing I (1.5)	
IW 131	Reinforcing II/Post Tensioning (1.5)	
IW 140	Precast Concrete and Metal Buildings (1.5)	
IW 150	Welding I (1.5)	
IW 151	Welding II (1.5)	
IW 152	Welding III (1.5)	
IW 158	Advanced Welding Shop (0.5 - 16)	
IW 160	Lead Hazard (2)	
IW 170	Structural I (1.5)	
IW 171	Structural II (1.5)	
IW 180	Architectural/Ornamental I (1.5)	
IW 183	The History of Ironworkers (3)	
IW 186	Architectural/Ornamental II (1.5)	
A minimum of 12 units from the following:		12
IW 298	Work Experience in Ironworkers Apprenticeship (0.5 - 6)	
Total Units:		**28**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Ironworker apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safely working in a field construction environment.
- analyze and interpret blueprints.
- interpret and apply welding codes.
- demonstrate proper selection, use, care, preparation, and handling of fiber lines, steel cables, wire ropes, chains, slings, cranes, ladders, scaffolds, and helicopter rigging.
- define, identify, interpret, and analyze uniform building codes (UBC), classifications, plans, schedules, charts, and specifications commonly used in the ironworker trade.

- describe and apply reinforcing techniques and principles to concrete structures using steel, bar supports, bar splicing, and welding.
- perform proper structural steel erection on bridges, overpasses, and large buildings.

Career Information

Ironworker technicians are in high demand. The ironworkers industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the ironworkers industry.

Mill and Cabinet Maker Apprenticeship Certificate

This program trains apprentices on the specific levels required for the construction industry and has been approved by the State of California Department of Apprenticeship Standards. It includes safety, blueprint reading, construction processes, building codes, estimation, and various mill and cabinet carpentry topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
CARPT 270	Basic Tool Safety for Mill Cabinet (1.5)	
CARPT 271	Introduction to Mill Cabinet Apprenticeship (1.5)	
CARPT 272	Math for the Mill Cabinet Trade (1.5)	
CARPT 273	Basic Cabinet Making (1.5)	
CARPT 274	Basic Blueprint Reading for Mill Cabinet (1.5)	
CARPT 275	Machinery Maintenance for Mill Cabinet (1.5)	
CARPT 276	Hardware Installation (1.5)	
CARPT 277	Sanding, Stains, and Finish Preparation (1.5)	
CARPT 278	Advanced Machinery (1.5)	
CARPT 279	Advanced Blueprint Reading for Mill Cabinet (1.5)	
CARPT 280	Advanced Cabinet Making (1.5)	
CARPT 281	Veneers, Laminate, and Finishing (1.5)	
CARPT 282	CAD Basics for Mill Cabinetry (1.5)	
CARPT 283	Introduction to Computer Numeric Control (CNC) (1.5)	
CARPT 284	Solid Surface Material, Fabrication, and Installation (1.5)	
CARPT 285	Advanced Project for Mill Cabinet (1.5)	
A minimum of 16 units from the following:		16
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**37**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Must be a state registered Mill and Cabinet apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the mill and cabinet carpenter's tools of the trade.
- analyze, interpret, and apply national building codes relating to mill and cabinet carpentry.
- analyze and interpret residential and commercial construction blueprints.
- identify and select appropriate materials for each phase of construction.
- construct and complete an advanced project demonstrating journeymen-level skills.
- apply design elements and principles to create functional and attractive cabinets.

Career Information

Mill and cabinet maker technicians are in high demand. The industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the mill and cabinet maker industry.

Mill and Cabinet Maker Level I Certificate

This certificate includes the training required to meet the Division of Apprenticeship Standards (DAS) level I guidelines for the mill and cabinet maker apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 6 units from the following:		6
CARPT 270	Basic Tool Safety for Mill Cabinet (1.5)	

Course Code	Course Title	Units
CARPT 271	Introduction to Mill Cabinet Apprenticeship (1.5)	
CARPT 272	Math for the Mill Cabinet Trade (1.5)	
CARPT 273	Basic Cabinet Making (1.5)	
CARPT 274	Basic Blueprint Reading for Mill Cabinet (1.5)	
CARPT 275	Machinery Maintenance for Mill Cabinet (1.5)	
CARPT 276	Hardware Installation (1.5)	
CARPT 277	Sanding, Stains, and Finish Preparation (1.5)	
CARPT 278	Advanced Machinery (1.5)	
CARPT 279	Advanced Blueprint Reading for Mill Cabinet (1.5)	
CARPT 280	Advanced Cabinet Making (1.5)	
CARPT 281	Veneers, Laminate, and Finishing (1.5)	
CARPT 282	CAD Basics for Mill Cabinetry (1.5)	
CARPT 283	Introduction to Computer Numeric Control (CNC) (1.5)	
CARPT 284	Solid Surface Material, Fabrication, and Installation (1.5)	
CARPT 285	Advanced Project for Mill Cabinet (1.5)	
A minimum of 4 units from the following:		4
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**10**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Must be a state registered Mill and Cabinet Maker apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the mill and cabinet carpenter's tools of the trade.

Career Information

Mill and cabinet maker technicians are in high demand. The industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the mill and cabinet maker industry.

Mill and Cabinet Maker Level II Certificate

This certificate includes the training required to meet the Division of Apprenticeship Standards (DAS) level II guidelines for the mill and cabinet maker apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 12 units from the following:		12
CARPT 270	Basic Tool Safety for Mill Cabinet (1.5)	
CARPT 271	Introduction to Mill Cabinet Apprenticeship (1.5)	
CARPT 272	Math for the Mill Cabinet Trade (1.5)	
CARPT 273	Basic Cabinet Making (1.5)	
CARPT 274	Basic Blueprint Reading for Mill Cabinet (1.5)	
CARPT 275	Machinery Maintenance for Mill Cabinet (1.5)	
CARPT 276	Hardware Installation (1.5)	
CARPT 277	Sanding, Stains, and Finish Preparation (1.5)	
CARPT 278	Advanced Machinery (1.5)	
CARPT 279	Advanced Blueprint Reading for Mill Cabinet (1.5)	
CARPT 280	Advanced Cabinet Making (1.5)	
CARPT 281	Veneers, Laminate, and Finishing (1.5)	
CARPT 282	CAD Basics for Mill Cabinetry (1.5)	
CARPT 283	Introduction to Computer Numeric Control (CNC) (1.5)	
CARPT 284	Solid Surface Material, Fabrication, and Installation (1.5)	
CARPT 285	Advanced Project for Mill Cabinet (1.5)	
A minimum of 8 units from the following:		8
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**20**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Must be a state registered Mill and Cabinet Maker apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.

- demonstrate proper selection, use, care, preparation, and handling of the mill and cabinet carpenter's tools of the trade.
- analyze, interpret, and apply national building codes relating to mill and cabinet carpentry.

Career Information

Mill and cabinet maker technicians are in high demand. The industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the mill and cabinet maker industry.

Mill and Cabinet Maker Level III Certificate

This certificate includes the training required to meet the Division of Apprenticeship Standards (DAS) level III guidelines for the mill and cabinet maker apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18
CARPT 270	Basic Tool Safety for Mill Cabinet (1.5)	
CARPT 271	Introduction to Mill Cabinet Apprenticeship (1.5)	
CARPT 272	Math for the Mill Cabinet Trade (1.5)	
CARPT 273	Basic Cabinet Making (1.5)	
CARPT 274	Basic Blueprint Reading for Mill Cabinet (1.5)	
CARPT 275	Machinery Maintenance for Mill Cabinet (1.5)	
CARPT 276	Hardware Installation (1.5)	
CARPT 277	Sanding, Stains, and Finish Preparation (1.5)	
CARPT 278	Advanced Machinery (1.5)	
CARPT 279	Advanced Blueprint Reading for Mill Cabinet (1.5)	
CARPT 280	Advanced Cabinet Making (1.5)	
CARPT 281	Veneers, Laminate, and Finishing (1.5)	
CARPT 282	CAD Basics for Mill Cabinetry (1.5)	
CARPT 283	Introduction to Computer Numeric Control (CNC) (1.5)	
CARPT 284	Solid Surface Material, Fabrication, and Installation (1.5)	
CARPT 285	Advanced Project for Mill Cabinet (1.5)	
A minimum of 12 units from the following:		12
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**30**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Must be a state registered Mill and Cabinet Maker apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the mill and cabinet carpenter's tools of the trade.
- analyze, interpret, and apply national building codes relating to mill and cabinet carpentry.
- identify and select appropriate materials for each phase of construction.

Career Information

Mill and cabinet maker technicians are in high demand. The industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the mill and cabinet maker industry.

Millwright Apprenticeship Certificate

This certificate includes the training required to meet the Division of Apprenticeship Standards (DAS) Journey Worker guidelines for the Millwright apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
CARPT 220	Millwright Tool Skills (1.5)	
CARPT 221	The Millwright Apprentice, the Trade, and 16 Hour Safety (1.5)	
CARPT 222	Millwright Math Applications (1.5)	
CARPT 223	Cutting and Welding I (1.5)	
CARPT 224	Materials of Construction (1.5)	
CARPT 225	Layout Procedures for Millwrights (1.5)	
CARPT 226	Precision Optical Instruments (1.5)	
CARPT 227	Blueprint Reading for Millwrights (1.5)	
CARPT 228	Millwright Rigging (1.5)	
CARPT 229	Welding II SMAW (1.5)	

Course Code	Course Title	Units
CARPT 230	Monorails (1.5)	
CARPT 231	Conveyors for Millwrights (1.5)	
CARPT 232	Installation and Maintenance of Machinery (1.5)	
CARPT 234	Precision Tools and Shaft Alignment (1.5)	
CARPT 236	Welding III FCAW (1.5)	
CARPT 237	Compressors (1.5)	
A minimum of 16 units from the following:		16
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**37**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Millwright apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate proper procedure for working on turbines.
- prepare a one-inch-thick vertical groove joint that meets American Welding Society (AWS) standards.
- produce the AWS 3G and 4G unlimited thickness practice test with Flux Core Arc Welding (FCAW).
- distinguish alternative energy sources, such as wind, nuclear, and tidal power.
- install machinery safely and effectively at the proper elevation.
- explain the layout and fabrication of header steel and methods for connecting and attaching support steel.
- explain the layout and fabrication of a monorail system.
- identify and explain plasma welding and cutting processes, components, and safety issues.
- demonstrate safe rigging practices, including hand and voice signals.

Career Information

Millwright technicians are in high demand. The millwright industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the millwright industry.

Millwright Level I Certificate

This certificate includes the training required to meet the Division of Apprenticeship Standards (DAS) level I guidelines for the millwright apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 6 units from the following:		6
CARPT 220	Millwright Tool Skills (1.5)	
CARPT 221	The Millwright Apprentice, the Trade, and 16 Hour Safety (1.5)	
CARPT 222	Millwright Math Applications (1.5)	
CARPT 223	Cutting and Welding I (1.5)	
CARPT 224	Materials of Construction (1.5)	
CARPT 225	Layout Procedures for Millwrights (1.5)	
CARPT 226	Precision Optical Instruments (1.5)	
CARPT 227	Blueprint Reading for Millwrights (1.5)	
CARPT 228	Millwright Rigging (1.5)	
CARPT 229	Welding II SMAW (1.5)	
CARPT 230	Monorails (1.5)	
CARPT 231	Conveyors for Millwrights (1.5)	
CARPT 232	Installation and Maintenance of Machinery (1.5)	
CARPT 234	Precision Tools and Shaft Alignment (1.5)	
CARPT 236	Welding III FCAW (1.5)	
CARPT 237	Compressors (1.5)	
A minimum of 4 units from the following:		4
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**10**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a state registered Millwright apprentice

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate basic safety practices with hand and power tools, scaffold and fall protection use, fire protection, respiratory protection, and confined spaces as required by the Occupational Safety and Health Administration's regulations.

- describe the responsibilities of the apprentice as required by the Joint Apprenticeship and Training Committee (JATC) and other governing agencies.
- demonstrate basic layout methods for establishing a right angle.
- describe fall protection anchorage points for scaffolding.

Career Information

Millwright technicians are in high demand. The millwright industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the millwright industry.

Millwright Level II Certificate

This certificate includes the training required to meet the Division of Apprenticeship Standards (DAS) level II guidelines for the millwright apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 12 units from the following:		12
CARPT 220	Millwright Tool Skills (1.5)	
CARPT 221	The Millwright Apprentice, the Trade, and 16 Hour Safety (1.5)	
CARPT 222	Millwright Math Applications (1.5)	
CARPT 223	Cutting and Welding I (1.5)	
CARPT 224	Materials of Construction (1.5)	
CARPT 225	Layout Procedures for Millwrights (1.5)	
CARPT 226	Precision Optical Instruments (1.5)	
CARPT 227	Blueprint Reading for Millwrights (1.5)	
CARPT 228	Millwright Rigging (1.5)	
CARPT 229	Welding II SMAW (1.5)	
CARPT 230	Monorails (1.5)	
CARPT 231	Conveyors for Millwrights (1.5)	
CARPT 232	Installation and Maintenance of Machinery (1.5)	
CARPT 234	Precision Tools and Shaft Alignment (1.5)	
CARPT 236	Welding III FCAW (1.5)	
CARPT 237	Compressors (1.5)	
A minimum of 8 units from the following:		8
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**20**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a state registered Millwright apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate basic safety practices with hand and power tools, scaffold and fall protection use, fire protection, respiratory protection, and confined spaces as required by the Occupational Safety and Health Administration's regulations.
- describe the responsibilities of the apprentice as required by Joint Apprenticeship and Training Committee (JATC) and other governing agencies.
- demonstrate basic layout methods for establishing a right angle.
- describe fall protection anchorage points for scaffolding.
- identify the characteristics of a variety of shapes of structural materials and appropriate applications of each.
- calculate and lay out angles using appropriate methods.

Career Information

Millwright technicians are in high demand. The millwright industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the millwright industry.

Millwright Level III Certificate

This certificate includes the training required to meet the Division of Apprenticeship Standards (DAS) level III guidelines for the millwright apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18
CARPT 220	Millwright Tool Skills (1.5)	
CARPT 221	The Millwright Apprentice, the Trade, and 16 Hour Safety (1.5)	
CARPT 222	Millwright Math Applications (1.5)	
CARPT 223	Cutting and Welding I (1.5)	
CARPT 224	Materials of Construction (1.5)	
CARPT 225	Layout Procedures for Millwrights (1.5)	

Course Code	Course Title	Units
CARPT 226	Precision Optical Instruments (1.5)	
CARPT 227	Blueprint Reading for Millwrights (1.5)	
CARPT 228	Millwright Rigging (1.5)	
CARPT 229	Welding II SMAW (1.5)	
CARPT 230	Monorails (1.5)	
CARPT 231	Conveyors for Millwrights (1.5)	
CARPT 232	Installation and Maintenance of Machinery (1.5)	
CARPT 234	Precision Tools and Shaft Alignment (1.5)	
CARPT 236	Welding III FCAW (1.5)	
CARPT 237	Compressors (1.5)	
A minimum of 12 units from the following:		12
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**30**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a state registered Millwright apprentice

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate basic safety practices with hand and power tools, scaffold and fall protection use, fire protection, respiratory protection, and confined spaces as required by the Occupational Safety and Health Administration's regulations.
- describe the responsibilities of the apprentice as required by Joint Apprenticeship and Training Committee (JATC) and other governing agencies.
- demonstrate basic layout methods for establishing a right angle.
- describe fall protection anchorage points for scaffolding.
- identify and troubleshoot optical instruments.
- analyze faulty readings from optical instruments.
- explain the purpose, printing, modifications, and assembly of blueprints.

Career Information

Millwright technicians are in high demand. The millwright industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the millwright industry.

Office Modular Systems Apprenticeship Certificate

This program concentrates on training office modular systems apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, and various office modular systems topics.

Certificate Requirements

Course Code	Course Title	Units
CARPT 108	Modular System Installer Safety	1.5
CARPT 109	Introduction to Office Modular Systems Installation	1.5
CARPT 111	Tool and Equipment Applications	1.5
CARPT 115	Floor to Ceiling Wall System Construction	1.5
CARPT 125	Drapery, Window Coverings, and Fine Furnishings	1.5
CARPT 137	Modular Systems Construction and Quality Control I	1.5
CARPT 138	Modular System Construction and Quality Control II	1.5
CARPT 163	Print Reading Measurement and Layout	1.5
A minimum of 12 units from the following:		12
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**24**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Must be a state registered Office Modular Systems apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the office modular systems tools of the trade.

- analyze, interpret, and apply national building codes relating to office modular systems.
- analyze and interpret construction blueprints.
- evaluate, lay out, and construct various project types.
- identify and select appropriate materials for each phase of construction.

Career Information

Office modular systems technicians are in high demand. The office modular systems industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the office modular systems industry.

Office Modular Systems Level I Certificate

This program concentrates on training office modular systems apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, and various required courses for office modular systems Level I.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 4 units from the following:		4
CARPT 108	Modular System Installer Safety (1.5)	
CARPT 109	Introduction to Office Modular Systems Installation (1.5)	
CARPT 111	Tool and Equipment Applications (1.5)	
CARPT 115	Floor to Ceiling Wall System Construction (1.5)	
CARPT 125	Drapery, Window Coverings, and Fine Furnishings (1.5)	
CARPT 137	Modular Systems Construction and Quality Control I (1.5)	
CARPT 138	Modular System Construction and Quality Control II (1.5)	
CARPT 163	Print Reading Measurement and Layout (1.5)	
A minimum of 8 units from the following:		8
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**12**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Must be a state registered Office Modular Systems apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the office modular systems tools of the trade.
- identify and select appropriate materials for each phase of construction.

Career Information

Office modular systems technicians are in high demand. The office modular systems industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the office modular systems industry.

Pile Driver Apprenticeship Certificate

This program concentrates on training Pile Driver apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, welding, and various pile driving topics.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
CARPT 240	Worker Safety and Tool Skills for Pile Drivers (1.5)	
CARPT 241	The Pile Driver Apprentice and the Trade with Construction Math (2)	
CARPT 242	Pile Driver Rigging (1.5)	
CARPT 243	Concrete Formwork (1.5)	
CARPT 244	Welding I SMAW (1.5)	
CARPT 245	Introduction to Pile Driving Land and Water (1.5)	

Course Code	Course Title	Units
CARPT 246	Welding II SMAW (1.5)	
CARPT 247	Advanced Pile Driving Land and Water (1.5)	
CARPT 248	Wharfage and Marine Structures (1.5)	
CARPT 250	Introduction to Structural Blueprints and Layout Instruments (1.5)	
CARPT 251	Advanced Structural Blueprints and Bridge Building (1.5)	
CARPT 252	Falsework, Shoring, and Heavy Timber Framing (1.5)	
CARPT 253	Advanced Formwork (1.5)	
CARPT 254	Welding III FCAW (1.5)	
CARPT 255	Welding IV FCAW Pipe (1.5)	
CARPT 257	Pile Driving II (1.5)	
A minimum of 16 units from the following:		16
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**37**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Pile Driver apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the Pile Driver's tools of the trade.
- analyze, interpret, and apply national building codes relating to pile driving.
- analyze and interpret construction blueprints.
- evaluate, lay out, and construct various project types.
- identify and select appropriate materials for each phase of construction.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction, and utilities.

Pile Driver Level I Certificate

This certificate includes training for the Pile Driver apprentice to meet the Division of Apprenticeship Standards (DAS) level I guidelines for the Pile Driver apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 6 units from the following:		6
CARPT 240	Worker Safety and Tool Skills for Pile Drivers (1.5)	
CARPT 241	The Pile Driver Apprentice and the Trade with Construction Math (2)	
CARPT 242	Pile Driver Rigging (1.5)	
CARPT 243	Concrete Formwork (1.5)	
CARPT 244	Welding I SMAW (1.5)	
CARPT 245	Introduction to Pile Driving Land and Water (1.5)	
CARPT 246	Welding II SMAW (1.5)	
CARPT 247	Advanced Pile Driving Land and Water (1.5)	
CARPT 248	Wharfage and Marine Structures (1.5)	
CARPT 250	Introduction to Structural Blueprints and Layout Instruments (1.5)	
CARPT 251	Advanced Structural Blueprints and Bridge Building (1.5)	
CARPT 252	Falsework, Shoring, and Heavy Timber Framing (1.5)	
CARPT 253	Advanced Formwork (1.5)	
CARPT 254	Welding III FCAW (1.5)	
CARPT 255	Welding IV FCAW Pipe (1.5)	
CARPT 257	Pile Driving II (1.5)	
A minimum of 4 units from the following:		4
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	

Course Code	Course Title	Units
Total Units:		**10**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Pile Driver apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the Pile Driver's tools of the trade.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction, and utilities.

Pile Driver Level II Certificate

This certificate includes training for the Pile Driver apprentice to meet the Division of Apprenticeship Standards (DAS) level II guidelines for the Pile Driver apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 12 units from the following:		12
CARPT 240	Worker Safety and Tool Skills for Pile Drivers (1.5)	
CARPT 241	The Pile Driver Apprentice and the Trade with Construction Math (2)	
CARPT 242	Pile Driver Rigging (1.5)	
CARPT 243	Concrete Formwork (1.5)	
CARPT 244	Welding I SMAW (1.5)	
CARPT 245	Introduction to Pile Driving Land and Water (1.5)	
CARPT 246	Welding II SMAW (1.5)	
CARPT 247	Advanced Pile Driving Land and Water (1.5)	
CARPT 248	Wharfage and Marine Structures (1.5)	
CARPT 250	Introduction to Structural Blueprints and Layout Instruments (1.5)	
CARPT 251	Advanced Structural Blueprints and Bridge Building (1.5)	
CARPT 252	Falsework, Shoring, and Heavy Timber Framing (1.5)	
CARPT 253	Advanced Formwork (1.5)	
CARPT 254	Welding III FCAW (1.5)	
CARPT 255	Welding IV FCAW Pipe (1.5)	
CARPT 257	Pile Driving II (1.5)	
A minimum of 8 units from the following:		8
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**20**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Pile Driver apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the Pile Driver's tools of the trade.
- identify and select appropriate materials for each phase of construction.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction, and utilities.

Pile Driver Level III Certificate

This certificate includes training for the Pile Driver apprentice to meet the Division of Apprenticeship Standards (DAS) level III guidelines for the Pile Driver apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18
CARPT 240	Worker Safety and Tool Skills for Pile Drivers (1.5)	
CARPT 241	The Pile Driver Apprentice and the Trade with Construction Math (2)	
CARPT 242	Pile Driver Rigging (1.5)	
CARPT 243	Concrete Formwork (1.5)	
CARPT 244	Welding I SMAW (1.5)	
CARPT 245	Introduction to Pile Driving Land and Water (1.5)	
CARPT 246	Welding II SMAW (1.5)	
CARPT 247	Advanced Pile Driving Land and Water (1.5)	
CARPT 248	Wharfage and Marine Structures (1.5)	
CARPT 250	Introduction to Structural Blueprints and Layout Instruments (1.5)	
CARPT 251	Advanced Structural Blueprints and Bridge Building (1.5)	
CARPT 252	Falsework, Shoring, and Heavy Timber Framing (1.5)	
CARPT 253	Advanced Formwork (1.5)	
CARPT 254	Welding III FCAW (1.5)	
CARPT 255	Welding IV FCAW Pipe (1.5)	
CARPT 257	Pile Driving II (1.5)	
A minimum of 12 units from the following:		12
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**30**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered Pile Driver apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the Pile Driver's tools of the trade.
- identify and select appropriate materials for each phase of construction.
- analyze and interpret construction blueprints.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction, and utilities.

Plumbers/Pipefitters Apprenticeship Certificate

This certificate includes the training for plumber and pipefitter apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the steamfitter apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 40 units from the following:		40
HVACR 101	Electrical Theory I (2)	
PLUMB 100	Introduction to the Trade (4.5)	
PLUMB 110	Plumbing Science, Fixtures, and Rigging (4)	
PLUMB 111	Plumbing Fixtures (2)	
PLUMB 120	Gas Welding and Brazing (2)	
PLUMB 121	Basic Arc Welding and Drawings (4)	
PLUMB 122	Advanced Arc Welding (2)	
PLUMB 130	Gas and Water Supply (4.5)	
PLUMB 131	Water Supply Systems (2)	
PLUMB 140	Advanced Drawings and Drainage (4)	

Course Code	Course Title	Units
PLUMB 141	Sewage Disposal (2)	
PLUMB 150	Steamfitting and Pipefitting (6)	
PLUMB 160	Uniform Plumbing Code and Medical Gas (5.5)	
PLUMB 163	Plumbing Code I (2)	
PLUMB 164	Plumbing Code II (2)	
PLUMB 166	Certification Preparation (2)	
PLUMB 168	Medical Gas and Vacuum Systems (2)	
PLUMB 169	Green Awareness (2)	
PLUMB 170	Job Supervision and Foreman Training (4)	
PLUMB 171	Construction Management in Plumbing (2)	
PLUMB 200	Plumbing Tool Workshop I (2)	
PLUMB 201	Plumbing Tool Workshop II (2)	
PLUMB 202	Plumbing Tool Workshop III (2)	
PLUMB 210	Beginning Drawing and Plan Reading for the Piping Trades (2)	
PLUMB 211	Advanced Drawing in the Piping Trades (2)	
PLUMB 212	Blueprint Reading for Plumbing (2)	
PLUMB 240	Trade Mathematics I (3)	
PLUMB 241	Trade Mathematics II (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 109	Union Heritage (3)	
STMFT 113	Beginning AutoCAD for Steamfitters (2)	
STMFT 114	Advanced AutoCAD for Steamfitters (2)	
A minimum of 16 units from the following:		16
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**56**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Plumbers and Pipefitters apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply hot pass and cover pass procedures.
- perform pipe weld methods in the 2G, 5G, and 6G positions.
- identify personality traits to work effectively with others.
- negotiate difficult workplace situations.
- practice conflict resolution.
- evaluate and develop project schedules.
- draft and properly complete construction documents.
- demonstrate uphill pipe welding method.
- list National Inspection Testing Certification (NITC) requirements for medical gas systems.
- demonstrate ability to apply applicable plumbing codes.

Career Information

Plumbers and pipefitters are in high demand. The plumber and pipefitters industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the plumbing industry.

Plumbers/Pipefitters Apprenticeship Level I Certificate

This certificate includes the first period training for plumber and pipefitter apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the steamfitter apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 8 units from the following:		8

Course Code	Course Title	Units
HVACR 101	Electrical Theory I (2)	
PLUMB 100	Introduction to the Trade (4.5)	
PLUMB 110	Plumbing Science, Fixtures, and Rigging (4)	
PLUMB 111	Plumbing Fixtures (2)	
PLUMB 120	Gas Welding and Brazing (2)	
PLUMB 121	Basic Arc Welding and Drawings (4)	
PLUMB 122	Advanced Arc Welding (2)	
PLUMB 130	Gas and Water Supply (4.5)	
PLUMB 131	Water Supply Systems (2)	
PLUMB 140	Advanced Drawings and Drainage (4)	
PLUMB 141	Sewage Disposal (2)	
PLUMB 150	Steamfitting and Pipefitting (6)	
PLUMB 160	Uniform Plumbing Code and Medical Gas (5.5)	
PLUMB 163	Plumbing Code I (2)	
PLUMB 164	Plumbing Code II (2)	
PLUMB 166	Certification Preparation (2)	
PLUMB 168	Medical Gas and Vacuum Systems (2)	
PLUMB 169	Green Awareness (2)	
PLUMB 170	Job Supervision and Foreman Training (4)	
PLUMB 171	Construction Management in Plumbing (2)	
PLUMB 200	Plumbing Tool Workshop I (2)	
PLUMB 201	Plumbing Tool Workshop II (2)	
PLUMB 202	Plumbing Tool Workshop III (2)	
PLUMB 210	Beginning Drawing and Plan Reading for the Piping Trades (2)	
PLUMB 211	Advanced Drawing in the Piping Trades (2)	
PLUMB 212	Blueprint Reading for Plumbing (2)	
PLUMB 240	Trade Mathematics I (3)	
PLUMB 241	Trade Mathematics II (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 109	Union Heritage (3)	
STMFT 113	Beginning AutoCAD for Steamfitters (2)	
STMFT 114	Advanced AutoCAD for Steamfitters (2)	
A minimum of 4 units from the following:		4
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**12**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Plumbers and Pipefitters apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate use of mathematics related to the plumbing industry.
- calculate pipe measurements.
- understand basic safety practices on the jobsite as required by the Occupational Safety and Health Administration's regulations.
- demonstrate safe rigging practices, including hand and voice signals.
- understand scientific and mechanical principles applicable to plumbing.
- describe the operating principles of plumbing fixtures.

Career Information

Plumbers and pipe-fitters are in high demand. The plumber and pipefitters industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry.

Plumbers/Pipefitters Apprenticeship Level II Certificate

This certificate includes the second period training for plumber and pipefitter apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the steamfitter apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 16 units from the following:		16
HVACR 101	Electrical Theory I (2)	
PLUMB 100	Introduction to the Trade (4.5)	
PLUMB 110	Plumbing Science, Fixtures, and Rigging (4)	
PLUMB 111	Plumbing Fixtures (2)	
PLUMB 120	Gas Welding and Brazing (2)	
PLUMB 121	Basic Arc Welding and Drawings (4)	
PLUMB 122	Advanced Arc Welding (2)	
PLUMB 130	Gas and Water Supply (4.5)	
PLUMB 131	Water Supply Systems (2)	
PLUMB 140	Advanced Drawings and Drainage (4)	
PLUMB 141	Sewage Disposal (2)	
PLUMB 150	Steamfitting and Pipefitting (6)	
PLUMB 160	Uniform Plumbing Code and Medical Gas (5.5)	
PLUMB 163	Plumbing Code I (2)	
PLUMB 164	Plumbing Code II (2)	
PLUMB 166	Certification Preparation (2)	
PLUMB 168	Medical Gas and Vacuum Systems (2)	
PLUMB 169	Green Awareness (2)	
PLUMB 170	Job Supervision and Foreman Training (4)	
PLUMB 171	Construction Management in Plumbing (2)	
PLUMB 200	Plumbing Tool Workshop I (2)	
PLUMB 201	Plumbing Tool Workshop II (2)	
PLUMB 202	Plumbing Tool Workshop III (2)	
PLUMB 210	Beginning Drawing and Plan Reading for the Piping Trades (2)	
PLUMB 211	Advanced Drawing in the Piping Trades (2)	
PLUMB 212	Blueprint Reading for Plumbing (2)	
PLUMB 240	Trade Mathematics I (3)	
PLUMB 241	Trade Mathematics II (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 109	Union Heritage (3)	
STMFT 113	Beginning AutoCAD for Steamfitters (2)	
STMFT 114	Advanced AutoCAD for Steamfitters (2)	
A minimum of 8 units from the following:		8
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**24**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Plumbers and Pipefitters apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safety procedures related to welding, brazing, burning, and soldering.
- demonstrate proper welding skills per industry standards.
- interpret blueprint drawings and welding symbols.
- classify piping layouts.
- create isometric drawings of piping systems.
- identify piping and fixture support.

Career Information

Plumbers and pipefitters are in high demand. The plumber and pipefitters industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the plumbing industry.

Plumbers/Pipefitters Apprenticeship Level III Certificate

This certificate includes the third period training for plumber and pipefitter apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the steamfitter apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 24 units from the following:		24
HVACR 101	Electrical Theory I (2)	
PLUMB 100	Introduction to the Trade (4.5)	
PLUMB 110	Plumbing Science, Fixtures, and Rigging (4)	
PLUMB 111	Plumbing Fixtures (2)	
PLUMB 120	Gas Welding and Brazing (2)	
PLUMB 121	Basic Arc Welding and Drawings (4)	
PLUMB 122	Advanced Arc Welding (2)	
PLUMB 130	Gas and Water Supply (4.5)	
PLUMB 131	Water Supply Systems (2)	
PLUMB 140	Advanced Drawings and Drainage (4)	
PLUMB 141	Sewage Disposal (2)	
PLUMB 150	Steamfitting and Pipefitting (6)	
PLUMB 160	Uniform Plumbing Code and Medical Gas (5.5)	
PLUMB 163	Plumbing Code I (2)	
PLUMB 164	Plumbing Code II (2)	
PLUMB 166	Certification Preparation (2)	
PLUMB 168	Medical Gas and Vacuum Systems (2)	
PLUMB 169	Green Awareness (2)	
PLUMB 170	Job Supervision and Foreman Training (4)	
PLUMB 171	Construction Management in Plumbing (2)	
PLUMB 200	Plumbing Tool Workshop I (2)	
PLUMB 201	Plumbing Tool Workshop II (2)	
PLUMB 202	Plumbing Tool Workshop III (2)	
PLUMB 210	Beginning Drawing and Plan Reading for the Piping Trades (2)	
PLUMB 211	Advanced Drawing in the Piping Trades (2)	
PLUMB 212	Blueprint Reading for Plumbing (2)	
PLUMB 240	Trade Mathematics I (3)	
PLUMB 241	Trade Mathematics II (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 109	Union Heritage (3)	
STMFT 113	Beginning AutoCAD for Steamfitters (2)	
STMFT 114	Advanced AutoCAD for Steamfitters (2)	
A minimum of 12 units from the following:		12
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**36**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Plumbers and Pipefitters apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify water treatment purification practices.
- design, lay out, and build commercial water supply systems.
- define thermal expansion and pressure control.
- identify properties of gas.
- identify traps and vents in drainage systems.
- understand building drawing and project specifications.

Career Information

Plumbers and pipefitters are in high demand. The plumber and pipefitters industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the plumbing industry.

Plumbers/Pipefitters Apprenticeship Level IV Certificate

This certificate includes the fourth period training for plumber and pipefitter apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the steamfitter apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 32 units from the following:		32
HVACR 101	Electrical Theory I (2)	
PLUMB 100	Introduction to the Trade (4.5)	
PLUMB 110	Plumbing Science, Fixtures, and Rigging (4)	
PLUMB 111	Plumbing Fixtures (2)	
PLUMB 120	Gas Welding and Brazing (2)	
PLUMB 121	Basic Arc Welding and Drawings (4)	
PLUMB 122	Advanced Arc Welding (2)	
PLUMB 130	Gas and Water Supply (4.5)	
PLUMB 131	Water Supply Systems (2)	
PLUMB 140	Advanced Drawings and Drainage (4)	
PLUMB 141	Sewage Disposal (2)	
PLUMB 150	Steamfitting and Pipefitting (6)	
PLUMB 160	Uniform Plumbing Code and Medical Gas (5.5)	
PLUMB 163	Plumbing Code I (2)	
PLUMB 164	Plumbing Code II (2)	
PLUMB 166	Certification Preparation (2)	
PLUMB 168	Medical Gas and Vacuum Systems (2)	
PLUMB 169	Green Awareness (2)	
PLUMB 170	Job Supervision and Foreman Training (4)	
PLUMB 171	Construction Management in Plumbing (2)	
PLUMB 200	Plumbing Tool Workshop I (2)	
PLUMB 201	Plumbing Tool Workshop II (2)	
PLUMB 202	Plumbing Tool Workshop III (2)	
PLUMB 210	Beginning Drawing and Plan Reading for the Piping Trades (2)	
PLUMB 211	Advanced Drawing in the Piping Trades (2)	
PLUMB 212	Blueprint Reading for Plumbing (2)	
PLUMB 240	Trade Mathematics I (3)	
PLUMB 241	Trade Mathematics II (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 109	Union Heritage (3)	
STMFT 113	Beginning AutoCAD for Steamfitters (2)	
STMFT 114	Advanced AutoCAD for Steamfitters (2)	

Course Code	Course Title	Units
A minimum of 16 units from the following:		16
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**48**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Plumbers and Pipefitters apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices related to steam and hydronic heating and cooling systems.
- identify steam piping systems.
- identify hydronic piping systems.
- define terminology used in the Uniform Plumbing Code.
- apply safety practices in a health care facility.
- list National Inspection Testing Certification (NITC) requirements for medical gas systems.

Career Information

Plumbers and pipefitters are in high demand. The plumber and pipefitters industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the plumbing industry.

Refrigeration Service Technician Apprenticeship Certificate

This certificate includes the training for refrigeration service technician apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the refrigeration service technician apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 40 units from the following:		40
HVACR 101	Electrical Theory I (2)	
HVACR 102	Electrical Theory II (2)	
HVACR 110	Mechanical Refrigeration Theory (2)	
HVACR 111	Refrigeration Cycle (2)	
HVACR 120	Intermediate Electrical I (2)	
HVACR 122	Intermediate Electrical II (2)	
HVACR 130	Intermediate Mechanical Refrigeration I (2)	
HVACR 132	Intermediate Mechanical Refrigeration II (2)	
HVACR 140	Electrical Troubleshooting I (2)	
HVACR 142	Electrical Troubleshooting II (2)	
HVACR 144	Introduction to Direct Digital Controls (2)	
HVACR 146	Introduction to Variable Frequency Drives (2)	
HVACR 152	Introduction to Boilers (2)	
HVACR 160	Introduction to Market Refrigeration Systems (2)	
HVACR 161	Introduction to CO2 Systems (2)	
HVACR 165	Brazing and Soldering (2)	
HVACR 170	Start Test Balance Water Side I (2)	
HVACR 171	Start Test Balance Water Side II (2)	
HVACR 173	Start Test Balance Air Side I (2)	
HVACR 174	Start Test Balance Air Side II (2)	
HVACR 176	Title 24 Certification (2)	
PLUMB 101	Introduction to the Refrigeration Fitter Apprenticeship (4.5)	
PLUMB 120	Gas Welding and Brazing (2)	
PLUMB 161	HVACR Start, Test, and Balance (4)	
PLUMB 162	Refrigeration and Customer Service (6)	

Course Code	Course Title	Units
PLUMB 180	Supermarket Refrigeration (4)	
PLUMB 181	Refrigeration Controls and Electrical Troubleshooting (3.5)	
PLUMB 182	Refrigeration and Hydronics Piping (4.5)	
PLUMB 190	Air Conditioning Pneumatic and Process Controls (4.5)	
PLUMB 191	Electrical and Direct Digital Controls (4)	
PLUMB 192	Pneumatic Controls and Computer Literacy (4)	
A minimum of 16 units from the following:		16
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**56**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Refrigeration Service Technician apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- explain safety hazards with Heating Ventilation Air Conditioning Refrigeration (HVACR) systems.
- explain proper design, testing, and balancing of air distribution.
- demonstrate the testing of fluid flow in piping systems.
- explain electrical principles necessary for startup and testing.
- identify proper documentation requirements to report findings during start, test, and balance operations.
- prepare for the proctored UA STAR exam.
- describe methods of maximizing energy efficiency of existing Heating Ventilation Air Conditioning Refrigeration (HVACR) equipment.
- demonstrate a service technician's role in customer service.
- list conditions of air on a psychrometric chart.
- identify jobsite hazards.

Career Information

Refrigeration technicians are in high demand. The refrigeration industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the refrigeration industry.

Refrigeration Service Technician Apprenticeship Level I Certificate

This certificate includes the first period training for refrigeration service technician apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the refrigeration service technician apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 8 units from the following:		8
HVACR 101	Electrical Theory I (2)	
HVACR 102	Electrical Theory II (2)	
HVACR 110	Mechanical Refrigeration Theory (2)	
HVACR 111	Refrigeration Cycle (2)	
HVACR 120	Intermediate Electrical I (2)	
HVACR 122	Intermediate Electrical II (2)	
HVACR 130	Intermediate Mechanical Refrigeration I (2)	
HVACR 132	Intermediate Mechanical Refrigeration II (2)	
HVACR 140	Electrical Troubleshooting I (2)	
HVACR 142	Electrical Troubleshooting II (2)	
HVACR 144	Introduction to Direct Digital Controls (2)	
HVACR 146	Introduction to Variable Frequency Drives (2)	
HVACR 152	Introduction to Boilers (2)	
HVACR 160	Introduction to Market Refrigeration Systems (2)	
HVACR 161	Introduction to CO2 Systems (2)	

Course Code	Course Title	Units
HVACR 165	Brazing and Soldering (2)	
HVACR 170	Start Test Balance Water Side I (2)	
HVACR 171	Start Test Balance Water Side II (2)	
HVACR 173	Start Test Balance Air Side I (2)	
HVACR 174	Start Test Balance Air Side II (2)	
HVACR 176	Title 24 Certification (2)	
PLUMB 101	Introduction to the Refrigeration Fitter Apprenticeship (4.5)	
PLUMB 120	Gas Welding and Brazing (2)	
PLUMB 161	HVACR Start, Test, and Balance (4)	
PLUMB 162	Refrigeration and Customer Service (6)	
PLUMB 180	Supermarket Refrigeration (4)	
PLUMB 181	Refrigeration Controls and Electrical Troubleshooting (3.5)	
PLUMB 182	Refrigeration and Hydronics Piping (4.5)	
PLUMB 190	Air Conditioning Pneumatic and Process Controls (4.5)	
PLUMB 191	Electrical and Direct Digital Controls (4)	
PLUMB 192	Pneumatic Controls and Computer Literacy (4)	
A minimum of 4 units from the following:		4
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**12**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Refrigeration Service Technician apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- classify piping layouts.
- create isometric drawings of piping systems.
- demonstrate working knowledge of Heating Ventilation Air Conditioning Refrigeration (HVACR) related science.
- understand the EPA 608 certification requirements.

Career Information

Refrigeration technicians are in high demand. The refrigeration industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the refrigeration industry.

Refrigeration Service Technician Apprenticeship Level II Certificate

This certificate includes the second period training for refrigeration service technician apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the refrigeration service technician apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 16 units from the following:		16
HVACR 101	Electrical Theory I (2)	
HVACR 102	Electrical Theory II (2)	
HVACR 110	Mechanical Refrigeration Theory (2)	
HVACR 111	Refrigeration Cycle (2)	
HVACR 120	Intermediate Electrical I (2)	
HVACR 122	Intermediate Electrical II (2)	
HVACR 130	Intermediate Mechanical Refrigeration I (2)	
HVACR 132	Intermediate Mechanical Refrigeration II (2)	
HVACR 140	Electrical Troubleshooting I (2)	
HVACR 142	Electrical Troubleshooting II (2)	
HVACR 144	Introduction to Direct Digital Controls (2)	

Course Code	Course Title	Units
HVACR 146	Introduction to Variable Frequency Drives (2)	
HVACR 152	Introduction to Boilers (2)	
HVACR 160	Introduction to Market Refrigeration Systems (2)	
HVACR 161	Introduction to CO2 Systems (2)	
HVACR 165	Brazing and Soldering (2)	
HVACR 170	Start Test Balance Water Side I (2)	
HVACR 171	Start Test Balance Water Side II (2)	
HVACR 173	Start Test Balance Air Side I (2)	
HVACR 174	Start Test Balance Air Side II (2)	
HVACR 176	Title 24 Certification (2)	
PLUMB 101	Introduction to the Refrigeration Fitter Apprenticeship (4.5)	
PLUMB 120	Gas Welding and Brazing (2)	
PLUMB 161	HVACR Start, Test, and Balance (4)	
PLUMB 162	Refrigeration and Customer Service (6)	
PLUMB 180	Supermarket Refrigeration (4)	
PLUMB 181	Refrigeration Controls and Electrical Troubleshooting (3.5)	
PLUMB 182	Refrigeration and Hydronics Piping (4.5)	
PLUMB 190	Air Conditioning Pneumatic and Process Controls (4.5)	
PLUMB 191	Electrical and Direct Digital Controls (4)	
PLUMB 192	Pneumatic Controls and Computer Literacy (4)	
A minimum of 8 units from the following:		8
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**24**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Refrigeration Service Technician apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- interpret blueprint drawings and welding symbols.
- demonstrate hot gas defrost operations.
- demonstrate electrical defrost operations.
- describe pump down systems operations.
- understand the EPA 608 certification requirements.

Career Information

Refrigeration technicians are in high demand. The refrigeration industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the refrigeration industry.

Refrigeration Service Technician Apprenticeship Level III Certificate

This certificate includes the third period training for refrigeration service technician apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the refrigeration service technician apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 24 units from the following:		24
HVACR 101	Electrical Theory I (2)	
HVACR 102	Electrical Theory II (2)	
HVACR 110	Mechanical Refrigeration Theory (2)	
HVACR 111	Refrigeration Cycle (2)	
HVACR 120	Intermediate Electrical I (2)	
HVACR 122	Intermediate Electrical II (2)	

Course Code	Course Title	Units
HVACR 130	Intermediate Mechanical Refrigeration I (2)	
HVACR 132	Intermediate Mechanical Refrigeration II (2)	
HVACR 140	Electrical Troubleshooting I (2)	
HVACR 142	Electrical Troubleshooting II (2)	
HVACR 144	Introduction to Direct Digital Controls (2)	
HVACR 146	Introduction to Variable Frequency Drives (2)	
HVACR 152	Introduction to Boilers (2)	
HVACR 160	Introduction to Market Refrigeration Systems (2)	
HVACR 161	Introduction to CO2 Systems (2)	
HVACR 165	Brazing and Soldering (2)	
HVACR 170	Start Test Balance Water Side I (2)	
HVACR 171	Start Test Balance Water Side II (2)	
HVACR 173	Start Test Balance Air Side I (2)	
HVACR 174	Start Test Balance Air Side II (2)	
HVACR 176	Title 24 Certification (2)	
PLUMB 101	Introduction to the Refrigeration Fitter Apprenticeship (4.5)	
PLUMB 120	Gas Welding and Brazing (2)	
PLUMB 161	HVACR Start, Test, and Balance (4)	
PLUMB 162	Refrigeration and Customer Service (6)	
PLUMB 180	Supermarket Refrigeration (4)	
PLUMB 181	Refrigeration Controls and Electrical Troubleshooting (3.5)	
PLUMB 182	Refrigeration and Hydronics Piping (4.5)	
PLUMB 190	Air Conditioning Pneumatic and Process Controls (4.5)	
PLUMB 191	Electrical and Direct Digital Controls (4)	
PLUMB 192	Pneumatic Controls and Computer Literacy (4)	
A minimum of 12 units from the following:		12
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**36**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Refrigeration Service Technician apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- explain the fundamentals of the vapor refrigeration cycle.
- demonstrate the use of the pressure enthalpy diagram.
- list appropriate customer relation behaviors.
- read schematic electrical diagrams.
- compare direct and alternating currents.
- identify symbols in an electrical wire diagram.

Career Information

Refrigeration technicians are in high demand. The refrigeration industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the refrigeration industry.

Refrigeration Service Technician Apprenticeship Level IV Certificate

This certificate includes the training for refrigeration to meet the Division of Apprenticeship Standards (DAS) Level IV guidelines for the refrigeration service technician apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 32 units from the following:		32

Course Code	Course Title	Units
HVACR 101	Electrical Theory I (2)	
HVACR 102	Electrical Theory II (2)	
HVACR 110	Mechanical Refrigeration Theory (2)	
HVACR 111	Refrigeration Cycle (2)	
HVACR 120	Intermediate Electrical I (2)	
HVACR 122	Intermediate Electrical II (2)	
HVACR 130	Intermediate Mechanical Refrigeration I (2)	
HVACR 132	Intermediate Mechanical Refrigeration II (2)	
HVACR 140	Electrical Troubleshooting I (2)	
HVACR 142	Electrical Troubleshooting II (2)	
HVACR 144	Introduction to Direct Digital Controls (2)	
HVACR 146	Introduction to Variable Frequency Drives (2)	
HVACR 152	Introduction to Boilers (2)	
HVACR 160	Introduction to Market Refrigeration Systems (2)	
HVACR 161	Introduction to CO2 Systems (2)	
HVACR 165	Brazing and Soldering (2)	
HVACR 170	Start Test Balance Water Side I (2)	
HVACR 171	Start Test Balance Water Side II (2)	
HVACR 173	Start Test Balance Air Side I (2)	
HVACR 174	Start Test Balance Air Side II (2)	
HVACR 176	Title 24 Certification (2)	
PLUMB 101	Introduction to the Refrigeration Fitter Apprenticeship (4.5)	
PLUMB 120	Gas Welding and Brazing (2)	
PLUMB 161	HVACR Start, Test, and Balance (4)	
PLUMB 162	Refrigeration and Customer Service (6)	
PLUMB 180	Supermarket Refrigeration (4)	
PLUMB 181	Refrigeration Controls and Electrical Troubleshooting (3.5)	
PLUMB 182	Refrigeration and Hydronics Piping (4.5)	
PLUMB 190	Air Conditioning Pneumatic and Process Controls (4.5)	
PLUMB 191	Electrical and Direct Digital Controls (4)	
PLUMB 192	Pneumatic Controls and Computer Literacy (4)	
A minimum of 16 units from the following:		16
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**48**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The student must be a registered Refrigeration Service Technician apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- adjust and calibrate a variable air volume (VAV) box.
- build control panels.
- design a pneumatic control system.
- create a wiring ladder diagram.
- demonstrate the use of automatic systems inputs and outputs.
- perform building automation system (BAS) installation, wiring, and testing.
- apply safety guidelines to electrical control systems.

Career Information

Refrigeration technicians are in high demand. The refrigeration industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the refrigeration industry.

Scaffold Erector Apprenticeship Certificate

This program concentrates on training scaffold erector apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, welding, and proper scaffold erection.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 21 units from the following:		21
CARPT 101	Introduction to Apprenticeship II (1.5)	
CARPT 106	Introduction to Apprenticeship I (1.5)	
SCFLD 101	Introduction to Scaffolds (1.5)	
SCFLD 102	Hazard Awareness and Confined Space (1.5)	
SCFLD 107	Rigging Awareness for Scaffold (1.5)	
SCFLD 110	Welded Frame and Mobile Tower Scaffold (1.5)	
SCFLD 111	System Scaffold I - Cuplock (1.5)	
SCFLD 112	System Scaffold II - Safway (1.5)	
SCFLD 113	Systems Scaffold III - Ring Lock (1.5)	
SCFLD 114	Ladder Access and Stair Tower (1.5)	
SCFLD 115	Suspended and Cantilevered Scaffold (1.5)	
SCFLD 116	Scaffold Containment (1.5)	
SCFLD 120	Scaffold Print Reading, Union Benefits, and First Aid (2)	
SCFLD 161	Tiebacks (1.5)	
SCFLD 163	Reshoring (1.5)	
SCFLD 165	Slopes and Vessels (1.5)	
A minimum of 16 units from the following:		16
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**37**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Must be a state registered Scaffold Erector apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the scaffold erector's tools of the trade.
- interpret and apply national building codes relating to scaffold erection.
- interpret residential and commercial construction blueprints.
- evaluate, lay out, and construct various project types.
- identify and select appropriate materials for each phase of construction.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction and maintenance, utilities, and facilities management.

Scaffold Erector Level I Certificate

This certificate includes the training for scaffold erectors to meet the Division of Apprenticeship Standards (DAS) Level I guidelines for the scaffold erectors apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 5 units from the following:		5
CARPT 101	Introduction to Apprenticeship II (1.5)	
CARPT 106	Introduction to Apprenticeship I (1.5)	
SCFLD 101	Introduction to Scaffolds (1.5)	
SCFLD 102	Hazard Awareness and Confined Space (1.5)	
SCFLD 107	Rigging Awareness for Scaffold (1.5)	
SCFLD 110	Welded Frame and Mobile Tower Scaffold (1.5)	
SCFLD 111	System Scaffold I - Cuplock (1.5)	
SCFLD 112	System Scaffold II - Safway (1.5)	
SCFLD 113	Systems Scaffold III - Ring Lock (1.5)	
SCFLD 114	Ladder Access and Stair Tower (1.5)	
SCFLD 115	Suspended and Cantilevered Scaffold (1.5)	
SCFLD 116	Scaffold Containment (1.5)	
SCFLD 120	Scaffold Print Reading, Union Benefits, and First Aid (2)	
SCFLD 161	Tiebacks (1.5)	
SCFLD 163	Reshoring (1.5)	
SCFLD 165	Slopes and Vessels (1.5)	
A minimum of 4 units from the following:		4
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**9**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Must be a state registered Scaffold Erector apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the scaffold erector's tools of the trade.

Career Information

Upon completion of the scaffold erector apprenticeship certificate, students may find employment in the following sectors: government, residential and commercial construction and maintenance, utilities, and facilities management.

Scaffold Erector Level II Certificate

This certificate includes the training for scaffold erectors to meet the Division of Apprenticeship Standards (DAS) Level II guidelines for the scaffold erectors apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 10 units from the following:		10
CARPT 101	Introduction to Apprenticeship II (1.5)	
CARPT 106	Introduction to Apprenticeship I (1.5)	
SCFLD 101	Introduction to Scaffolds (1.5)	
SCFLD 102	Hazard Awareness and Confined Space (1.5)	
SCFLD 107	Rigging Awareness for Scaffold (1.5)	
SCFLD 110	Welded Frame and Mobile Tower Scaffold (1.5)	
SCFLD 111	System Scaffold I - Cuplock (1.5)	
SCFLD 112	System Scaffold II - Safway (1.5)	
SCFLD 113	Systems Scaffold III - Ring Lock (1.5)	
SCFLD 114	Ladder Access and Stair Tower (1.5)	
SCFLD 115	Suspended and Cantilevered Scaffold (1.5)	
SCFLD 116	Scaffold Containment (1.5)	
SCFLD 120	Scaffold Print Reading, Union Benefits, and First Aid (2)	
SCFLD 161	Tiebacks (1.5)	
SCFLD 163	Reshoring (1.5)	
SCFLD 165	Slopes and Vessels (1.5)	
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**18**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Must be a state registered Scaffold Erector apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the scaffold erector's tools of the trade.
- identify and select appropriate materials for each phase of construction.

Career Information

Upon completion of the scaffold erector apprenticeship certificate, students may find employment in the following sectors: government, residential and commercial construction and maintenance, utilities, and facilities management.

Scaffold Erector Level III Certificate

This certificate includes the training for scaffold erectors to meet the Division of Apprenticeship Standards (DAS) Level III guidelines for the scaffold erectors apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 15 units from the following:		15
CARPT 101	Introduction to Apprenticeship II (1.5)	
CARPT 106	Introduction to Apprenticeship I (1.5)	
SCFLD 101	Introduction to Scaffolds (1.5)	
SCFLD 102	Hazard Awareness and Confined Space (1.5)	
SCFLD 107	Rigging Awareness for Scaffold (1.5)	
SCFLD 110	Welded Frame and Mobile Tower Scaffold (1.5)	
SCFLD 111	System Scaffold I - Cuplock (1.5)	
SCFLD 112	System Scaffold II - Safway (1.5)	

Course Code	Course Title	Units
SCFLD 113	Systems Scaffold III - Ring Lock (1.5)	
SCFLD 114	Ladder Access and Stair Tower (1.5)	
SCFLD 115	Suspended and Cantilevered Scaffold (1.5)	
SCFLD 116	Scaffold Containment (1.5)	
SCFLD 120	Scaffold Print Reading, Union Benefits, and First Aid (2)	
SCFLD 161	Tiebacks (1.5)	
SCFLD 163	Reshoring (1.5)	
SCFLD 165	Slopes and Vessels (1.5)	
A minimum of 12 units from the following:		12
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**27**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Must be a state registered Scaffold Erector apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the scaffold erector's tools of the trade.
- identify and select appropriate materials for each phase of construction.
- evaluate, lay out, and construct various project types.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential and commercial construction and maintenance, utilities, and facilities management.

Sheet Metal Apprenticeship Certificate

The Sheet Metal Apprenticeship certificate concentrates on training apprentices to the specific levels required for the construction industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial processes, building codes, estimation, and various sheet metal topics.

Certificate Requirements

Course Code	Course Title	Units
SHME 100	Sheet Metal Apprenticeship I	3.5
SHME 101	Sheet Metal Apprenticeship II	3.5
SHME 110	Sheet Metal Apprenticeship III	3.5
SHME 111	Sheet Metal Apprenticeship IV	3.5
SHME 120	Sheet Metal Apprenticeship V	3.5
SHME 121	Sheet Metal Apprenticeship VI	3.5
SHME 130	Sheet Metal Apprenticeship VII	3.5
SHME 131	Sheet Metal Apprenticeship VIII	3.5
SHME 140	Sheet Metal Apprenticeship IX	3.5
SHME 141	Sheet Metal Apprenticeship X	3.5
SHME 150	Sheet Metal Welding I	3.5
SHME 151	Sheet Metal Welding II	3.5
A minimum of 16 units from the following:		16
SHME 298	Work Experience in Sheet Metal Apprenticeship (0.5 - 6)	
Total Units:		**58**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Sheet Metal apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the sheet metal worker's tools of the trade.
- analyze, interpret, and apply national building codes relating to sheet metal construction.
- analyze and interpret residential and commercial construction blueprints.
- acquire skills and knowledge to make a successful transition to a journey-level position in the sheet metal worker trade.
- demonstrate the ability to apply mathematical concepts to the sheet metal trade.
- demonstrate proficiency in the principles, concepts and applications in metal fabrication methods.

Career Information

Upon completion of the Sheet Metal Apprenticeship certificate, students may find employment in the following sectors: government, residential and commercial construction and maintenance, utilities, and facilities management.

Sheet Metal Apprenticeship Level I Certificate

This program concentrates on training apprentices to the level I requirements for the sheet metal industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial sheet metal processes, building codes, estimation, and various sheet metal topics.

Certificate Requirements

Course Code	Course Title	Units
SHME 100	Sheet Metal Apprenticeship I	3.5
SHME 101	Sheet Metal Apprenticeship II	3.5
A minimum of 4 units from the following:		4
SHME 298	Work Experience in Sheet Metal Apprenticeship (0.5 - 6)	
Total Units:		**11**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered sheet metal apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze and avoid unsafe conditions and unsafe acts, and observe safety laws and regulations.
- describe general Occupational Safety & Health Administration (OSHA) and Environmental Protection Agency (EPA) requirements on construction job sites.
- demonstrate basic drafting skills and use of drafting tools.
- demonstrate proper soldering on sheet metal fabrication.
- identify and define plan view, elevation view and develop a profile in a sheet metal layout project.

Career Information

Sheet metal technicians are in high demand. The sheet metal industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the sheet metal industry.

Sheet Metal Apprenticeship Level II Certificate

This program concentrates on training apprentices to the level II requirements for the sheet metal industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial sheet metal processes, building codes, estimation, and various sheet metal topics.

Certificate Requirements

Course Code	Course Title	Units
SHME 110	Sheet Metal Apprenticeship III	3.5
SHME 111	Sheet Metal Apprenticeship IV	3.5
A minimum of 11 units from the following:		11
Sheet Metal Apprenticeship Level I Certificate		
A minimum of 4 units from the following:		4
SHME 298	Work Experience in Sheet Metal Apprenticeship (0.5 - 6)	
Total Units:		**22**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered sheet metal apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- Apply mathematics to fabricate complex sheet metal fittings.
- Draft and fabricate round duct fittings.
- Identify hidden job costs and assemble a simple bid.
- Demonstrate proper mitering of flashing and gutter products.
- Identify and demonstrate proper installation procedures for fire and smoke dampers.
- Identify safe rigging practices.

Career Information

Sheet metal technicians are in high demand. The sheet metal industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the sheet metal industry.

Sheet Metal Apprenticeship Level III Certificate

This program concentrates on training apprentices to the level III requirements for the sheet metal industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial sheet metal processes, building codes, estimation, and various sheet metal topics.

Certificate Requirements

Course Code	Course Title	Units
SHME 120	Sheet Metal Apprenticeship V	3.5
SHME 121	Sheet Metal Apprenticeship VI	3.5
A minimum of 20 units from the following:		20
Sheet Metal Apprenticeship Level II Certificate		
A minimum of 4 units from the following:		4
SHME 298	Work Experience in Sheet Metal Apprenticeship (0.5 - 6)	
Total Units:		**31**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered sheet metal apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- measure the moisture content of air and relative humidity using a sling psychrometer and a psychometric chart.
- calculate ventilation requirements for a given space.
- demonstrate the use of an air duct calculator to design a duct system.
- identify and avoid unsafe conditions and unsafe acts, and observe safety laws and regulations on construction job sites.
- demonstrate proper layout of a roof curb and duct penetrations.

Career Information

Sheet metal technicians are in high demand. The sheet metal industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the sheet metal industry.

Sheet Metal Apprenticeship Level IV Certificate

This program concentrates on training apprentices to the level IV requirements for the sheet metal industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial sheet metal processes, building codes, estimation, and various sheet metal topics.

Certificate Requirements

Course Code	Course Title	Units
SHME 130	Sheet Metal Apprenticeship VII	3.5
SHME 131	Sheet Metal Apprenticeship VIII	3.5
A minimum of 30 units from the following:		30
Sheet Metal Apprenticeship Level III Certificate		
A minimum of 4 units from the following:		4
SHME 298	Work Experience in Sheet Metal Apprenticeship (0.5 - 6)	
Total Units:		**41**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered sheet metal apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- calculate air system pressure, balancing and sizing to specified requirements.
- assemble a shop fabrication order from given drawings, blueprints and specifications.
- demonstrate the drafting, layout and installation of rooftop steel.

- demonstrate testing of an HVAC system to calculate specified air balance.
- identify code violations in mechanical design based on the Uniform Mechanical Code (UMC).

Career Information

Sheet metal technicians are in high demand. The sheet metal industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the sheet metal industry.

Sheet Metal Service Technician Apprenticeship Certificate

The Sheet Metal Service Technician Apprenticeship certificate concentrates on training apprentices to the specific levels required for the construction and the heating, ventilation, and air conditioning (HVAC) industries. This program has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial processes, building codes, estimation, and various sheet metal topics. It includes the servicing, start-up, and balancing of HVAC systems.

Certificate Requirements

Course Code	Course Title	Units
SHME 100	Sheet Metal Apprenticeship I	3.5
SHME 101	Sheet Metal Apprenticeship II	3.5
SHME 110	Sheet Metal Apprenticeship III	3.5
SHME 111	Sheet Metal Apprenticeship IV	3.5
SMTEC 100	Sheet Metal Service Technician Apprenticeship I	2.5
SMTEC 101	Sheet Metal Service Technician Apprenticeship II	2.5
SMTEC 110	Sheet Metal Service Technician Apprenticeship III	2.5
SMTEC 111	Sheet Metal Service Technician Apprenticeship IV	2.5
SMTEC 120	Sheet Metal Service Technician Apprenticeship V	2.5
SMTEC 121	Sheet Metal Service Technician Apprenticeship VI	2.5
SMTEC 130	Sheet Metal Service Technician Apprenticeship VII	2.5
SMTEC 131	Sheet Metal Service Technician Apprenticeship VIII	2.5
SMTEC 140	Sheet Metal Service Technician Apprenticeship IX	2.5
SMTEC 141	Sheet Metal Service Technician Apprenticeship X	2.5
A minimum of 16 units from the following:		16
SHME 298	Work Experience in Sheet Metal Apprenticeship (0.5 - 6)	
Total Units:		**55**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Sheet Metal Service Technician apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the sheet metal worker's tools of the trade.
- analyze, interpret, and apply national building codes relating to sheet metal and mechanical construction.
- analyze and interpret residential and commercial construction blueprints.
- demonstrate the proper start-up and balancing of different HVAC systems.
- demonstrate troubleshooting techniques on various HVAC systems.

Career Information

Upon completion of the Sheet Metal Service Technician Apprenticeship certificate, students may find employment in the following sectors: government, residential and commercial construction and maintenance, HVAC servicing, utilities, facilities management, and central plant operations.

Sheet Metal Service Technician Apprenticeship Level I Certificate

This program concentrates on training apprentices to the level I requirements for the sheet metal service technician industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial sheet metal processes, building codes, estimation, and various sheet metal topics.

Certificate Requirements

Course Code	Course Title	Units
SMTEC 100	Sheet Metal Service Technician Apprenticeship I	2.5
SMTEC 101	Sheet Metal Service Technician Apprenticeship II	2.5
A minimum of 4 units from the following:		4
SHME 298	Work Experience in Sheet Metal Apprenticeship (0.5 - 6)	

Course Code	Course Title	Units
Total Units:		**9**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered sheet metal service technician apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate use of tools and instruments used by sheet metal service technicians.
- define and calculate the enthalpy necessary for refrigeration systems.
- explain the basic refrigeration cycle.
- diagnose a refrigeration system on a small HVAC package unit.
- demonstrate proper recovery of refrigerant.

Career Information

Sheet metal service technicians are in high demand. The sheet metal industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the sheet metal service industry.

Sheet Metal Service Technician Apprenticeship Level II Certificate

This program concentrates on training apprentices to the level II requirements for the sheet metal service technician industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial sheet metal processes, building codes, estimation, and various sheet metal topics.

Certificate Requirements

Course Code	Course Title	Units
SMTEC 110	Sheet Metal Service Technician Apprenticeship III	2.5
SMTEC 111	Sheet Metal Service Technician Apprenticeship IV	2.5
A minimum of 9 units from the following:		9
Sheet Metal Service Technician Apprenticeship Level I Certificate		
A minimum of 4 units from the following:		4
SHME 298	Work Experience in Sheet Metal Apprenticeship (0.5 - 6)	
Total Units:		**18**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered sheet metal service technician apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze control diagrams in a packaged air conditioning unit.
- demonstrate measuring for electricity with a voltage meter in an air conditioning package unit.
- demonstrate wiring a basic hermetically sealed motor.
- demonstrate the servicing of a hermetically sealed motor.
- calculate the overload protection for a motor.

Career Information

Sheet metal service technicians are in high demand. The sheet metal industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the sheet metal service industry.

Sheet Metal Service Technician Apprenticeship Level III Certificate

This program concentrates on training apprentices to the level III requirements for the sheet metal service technician industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial sheet metal processes, building codes, estimation, and various sheet metal topics.

Certificate Requirements

Course Code	Course Title	Units
SMTEC 120	Sheet Metal Service Technician Apprenticeship V	2.5
SMTEC 121	Sheet Metal Service Technician Apprenticeship VI	2.5
A minimum of 18 units from the following:		18
Sheet Metal Service Technician Apprenticeship Level II Certificate		

Course Code	Course Title	Units
A minimum of 4 units from the following:		4
SHME 298	Work Experience in Sheet Metal Apprenticeship (0.5 - 6)	
Total Units:		**27**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered sheet metal service technician apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- measure the moisture content of air and relative humidity using a sling psychrometer and psychrometric chart.
- demonstrate the use of an air duct calculator to analyze an air duct system design.
- calculate ventilation requirements for a given building space.
- calculate the heat load for a cooling system.
- describe the various operating cycles of a heat pump system.

Career Information

Sheet metal service technicians are in high demand. The sheet metal industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the sheet metal service industry.

Sheet Metal Service Technician Apprenticeship Level IV Certificate

This program concentrates on training apprentices to the level IV requirements for the sheet metal service technician industry and has been approved by the State of California Department of Apprenticeship Standards. Training emphasis includes safety, blueprint reading, residential and commercial sheet metal processes, building codes, estimation, and various sheet metal topics.

Certificate Requirements

Course Code	Course Title	Units
SMTEC 130	Sheet Metal Service Technician Apprenticeship VII	2.5
SMTEC 131	Sheet Metal Service Technician Apprenticeship VIII	2.5
A minimum of 27 units from the following:		27
Sheet Metal Service Technician Apprenticeship Level III Certificate		
A minimum of 4 units from the following:		4
SHME 298	Work Experience in Sheet Metal Apprenticeship (0.5 - 6)	
Total Units:		**36**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Be a registered sheet metal service technician apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- summarize the applications of a computerized building management system.
- describe the various methods used in charging commercial refrigeration systems.
- measure a digital signal with the proper measurement instrument.
- explain the basic logic and function of a analog to digital and digital to analog converter.
- demonstrate the setup and balancing of a variable-air volume system.

Career Information

Sheet metal service technicians are in high demand. The sheet metal industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the sheet metal service industry.

Shingler Certificate

This program concentrates on training shingler apprentices to the specific levels required for the construction industry and has been approved by the State of California Division of Apprenticeship Standards. It includes safety, blueprint reading, commercial construction processes, building codes, estimation, and various shingler topics.

Certificate Requirements

Course Code	Course Title	Units
CARPT 101	Introduction to Apprenticeship II	1.5
CARPT 107	Rigging	1.5
CARPT 160	Blueprint Reading Basic	1.5
CARPT 162	Blueprint Reading Advanced	1.5
CARPT 210	The Acoustical Apprentice, Safety, and the Trade	1.5
A minimum of 12 units from the following:		12
CARPT 298	Work Experience in Carpenters Apprenticeship (0.5 - 6)	
Total Units:		**19.5**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Must be a state registered Carpenter's apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe working practices in a field construction environment.
- demonstrate proper selection, use, care, preparation, and handling of the tools used in the shingler trade.
- analyze, interpret, and apply national building codes relating to a shingler.
- analyze and interpret construction blueprints.
- evaluate, lay out, and construct various project types.
- identify and select appropriate materials for each phase of construction.

Career Information

Upon completion of this certificate, students may find employment in the following sectors: government, residential, and commercial construction.

Steamfitter Apprenticeship Certificate

This certificate includes the training for steamfitter apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the steamfitter apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 40 units from the following:		40
PLUMB 166	Certification Preparation (2)	
PLUMB 241	Trade Mathematics II (2)	
STMFT 100	OSHA and CPR (2)	
STMFT 101	Use and Care of Tools (2)	
STMFT 103	Related Science in the Piping Trades (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 105	Instrumentation I (2)	
STMFT 109	Union Heritage (3)	
STMFT 110	Beginning Drawing and Plan Reading for the Piping Trades (2)	
STMFT 111	Advanced Drawing in the Piping Trades (2)	
STMFT 113	Beginning AutoCAD for Steamfitters (2)	
STMFT 114	Advanced AutoCAD for Steamfitters (2)	
STMFT 120	Trade Mathematics (2)	
STMFT 130	Pipe Shop I (2)	
STMFT 131	Pipe Shop II (2)	
STMFT 132	Tube Bending (2)	
STMFT 140	Welding Safety and Plate Welding (2)	
STMFT 164	Orbital Welding (2)	
A minimum of 16 units from the following:		16
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**56**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Steamfitter apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- discuss the role the steamfitter plays in a safe work site.
- demonstrate all the major safety responsibilities of the steamfitter.
- identify types, sizes, and applications of steam piping.
- research proper practice for boiler safety and operation.
- apply the fundamental principles and uses of water/steam and other gases and chemicals in the piping industry.
- apply concepts in temperature, heat, and energy.
- utilize concepts in electricity including safety procedures, measurement, and simple calculations.
- describe the role of the apprenticeship as it relates to union employment.
- demonstrate proper use of basic drawing and measuring tools associated with the piping trade.
- interpret technical drawings and piping and plumbing diagrams in orthographic and isometric views.
- apply the uses and applications of Computer Aided Drafting (CAD).
- identify methods of joining pipes using compression and flanged joints.
- identify fittings, valves, clamps, and tools used in the industry.
- use an Oxy-Fuel torch to cut and weld materials properly and safely.
- use a shielded metal arc welder properly and safely.
- set up and calibrate orbital welders properly.
- describe and apply relevant plumbing codes and laws.
- use formulas to determine areas, angles, and volumes of pipes and vessels.

Career Information

Steamfitters are in high demand. The steamfitter industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the steamfitting industry.

Steamfitter Apprenticeship Level I Certificate

This certificate includes the first period training for steamfitter apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the steamfitter apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 8 units from the following:		8
PLUMB 166	Certification Preparation (2)	
PLUMB 241	Trade Mathematics II (2)	
STMFT 100	OSHA and CPR (2)	
STMFT 101	Use and Care of Tools (2)	
STMFT 103	Related Science in the Piping Trades (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 105	Instrumentation I (2)	
STMFT 109	Union Heritage (3)	
STMFT 110	Beginning Drawing and Plan Reading for the Piping Trades (2)	
STMFT 111	Advanced Drawing in the Piping Trades (2)	
STMFT 113	Beginning AutoCAD for Steamfitters (2)	
STMFT 114	Advanced AutoCAD for Steamfitters (2)	
STMFT 120	Trade Mathematics (2)	
STMFT 130	Pipe Shop I (2)	
STMFT 131	Pipe Shop II (2)	
STMFT 132	Tube Bending (2)	
STMFT 140	Welding Safety and Plate Welding (2)	
STMFT 164	Orbital Welding (2)	
A minimum of 4 units from the following:		4
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**12**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Steamfitter apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- discuss the role the steamfitter plays in a safe work site.
- demonstrate all the major safety responsibilities of the steamfitter.
- identify types, sizes, and applications of steam piping.
- research proper practice for boiler safety and operation.
- apply the fundamental principles and uses of water/steam and other gases and chemicals in the piping industry.
- apply concepts in temperature, heat, and energy.
- utilize concepts in electricity including safety procedures, measurement, and simple calculations.
- describe the role of the apprenticeship as it relates to union employment.
- demonstrate proper use of basic drawing and measuring tools associated with the piping trade.
- interpret technical drawings and piping and plumbing diagrams in orthographic and isometric views.
- apply the uses and applications of Computer Aided Drafting (CAD).
- identify methods of joining pipes using compression and flanged joints.
- identify fittings, valves, clamps, and tools used in the industry.
- use an Oxy-Fuel torch to cut and weld materials properly and safely.
- use a shielded metal arc welder properly and safely.
- set up and calibrate orbital welders properly.
- describe and apply relevant plumbing codes and laws.
- use formulas to determine areas, angles, and volumes of pipes and vessels.

Career Information

Steamfitters are in high demand. The steamfitter industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the steamfitting industry.

Steamfitter Apprenticeship Level II Certificate

This certificate includes the second period training for steamfitter apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the steamfitter apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 16 units from the following:		16
PLUMB 166	Certification Preparation (2)	
PLUMB 241	Trade Mathematics II (2)	
STMFT 100	OSHA and CPR (2)	
STMFT 101	Use and Care of Tools (2)	
STMFT 103	Related Science in the Piping Trades (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 105	Instrumentation I (2)	
STMFT 109	Union Heritage (3)	
STMFT 110	Beginning Drawing and Plan Reading for the Piping Trades (2)	
STMFT 111	Advanced Drawing in the Piping Trades (2)	
STMFT 113	Beginning AutoCAD for Steamfitters (2)	
STMFT 114	Advanced AutoCAD for Steamfitters (2)	
STMFT 120	Trade Mathematics (2)	
STMFT 130	Pipe Shop I (2)	
STMFT 131	Pipe Shop II (2)	
STMFT 132	Tube Bending (2)	
STMFT 140	Welding Safety and Plate Welding (2)	
STMFT 164	Orbital Welding (2)	
A minimum of 8 units from the following:		8
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**24**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Steamfitter apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- discuss the role the steamfitter plays in a safe work site.
- demonstrate all the major safety responsibilities of the steamfitter.
- identify types, sizes, and applications of steam piping.
- research proper practice for boiler safety and operation.
- apply the fundamental principles and uses of water/steam and other gases and chemicals in the piping industry.
- apply concepts in temperature, heat, and energy.
- utilize concepts in electricity including safety procedures, measurement, and simple calculations.
- describe the role of the apprenticeship as it relates to union employment.
- demonstrate proper use of basic drawing and measuring tools associated with the piping trade.
- interpret technical drawings and piping and plumbing diagrams in orthographic and isometric views.
- apply the uses and applications of Computer Aided Drafting (CAD).
- identify methods of joining pipes using compression and flanged joints.
- identify fittings, valves, clamps, and tools used in the industry.
- use an Oxy-Fuel torch to cut and weld materials properly and safely.
- use a shielded metal arc welder properly and safely.
- set up and calibrate orbital welders properly.
- describe and apply relevant plumbing codes and laws.
- use formulas to determine areas, angles, and volumes of pipes and vessels.

Career Information

Steamfitters are in high demand. The steamfitter industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the steamfitting industry.

Steamfitter Apprenticeship Level III Certificate

This certificate includes the third period training for steamfitter apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the steamfitter apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 24 units from the following:		24
PLUMB 166	Certification Preparation (2)	
PLUMB 241	Trade Mathematics II (2)	
STMFT 100	OSHA and CPR (2)	
STMFT 101	Use and Care of Tools (2)	
STMFT 103	Related Science in the Piping Trades (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 105	Instrumentation I (2)	
STMFT 109	Union Heritage (3)	
STMFT 110	Beginning Drawing and Plan Reading for the Piping Trades (2)	
STMFT 111	Advanced Drawing in the Piping Trades (2)	
STMFT 113	Beginning AutoCAD for Steamfitters (2)	
STMFT 114	Advanced AutoCAD for Steamfitters (2)	
STMFT 120	Trade Mathematics (2)	
STMFT 130	Pipe Shop I (2)	
STMFT 131	Pipe Shop II (2)	
STMFT 132	Tube Bending (2)	
STMFT 140	Welding Safety and Plate Welding (2)	
STMFT 164	Orbital Welding (2)	
A minimum of 12 units from the following:		12
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**36**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Steamfitter apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- discuss the role the steamfitter plays in a safe work site.
- demonstrate all the major safety responsibilities of the steamfitter.
- identify types, sizes, and applications of steam piping.
- research proper practice for boiler safety and operation.
- apply the fundamental principles and uses of water/steam and other gases and chemicals in the piping industry.
- apply concepts in temperature, heat, and energy.
- utilize concepts in electricity including safety procedures, measurement, and simple calculations.
- describe the role of the apprenticeship as it relates to union employment.
- demonstrate proper use of basic drawing and measuring tools associated with the piping trade.
- interpret technical drawings and piping and plumbing diagrams in orthographic and isometric views.
- apply the uses and applications of Computer Aided Drafting (CAD).
- identify methods of joining pipes using compression and flanged joints.
- identify fittings, valves, clamps, and tools used in the industry.
- use an Oxy-Fuel torch to cut and weld materials properly and safely.
- use a shielded metal arc welder properly and safely.
- set up and calibrate orbital welders properly.
- describe and apply relevant plumbing codes and laws.
- use formulas to determine areas, angles, and volumes of pipes and vessels.

Career Information

Steamfitters are in high demand. The steamfitter industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the steamfitting industry.

Steamfitter Apprenticeship Level IV Certificate

This certificate includes the fourth period training for steamfitter apprentices to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the steamfitter apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 32 units from the following:		32
PLUMB 166	Certification Preparation (2)	
PLUMB 241	Trade Mathematics II (2)	
STMFT 100	OSHA and CPR (2)	
STMFT 101	Use and Care of Tools (2)	
STMFT 103	Related Science in the Piping Trades (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 105	Instrumentation I (2)	
STMFT 109	Union Heritage (3)	
STMFT 110	Beginning Drawing and Plan Reading for the Piping Trades (2)	
STMFT 111	Advanced Drawing in the Piping Trades (2)	
STMFT 113	Beginning AutoCAD for Steamfitters (2)	
STMFT 114	Advanced AutoCAD for Steamfitters (2)	
STMFT 120	Trade Mathematics (2)	
STMFT 130	Pipe Shop I (2)	
STMFT 131	Pipe Shop II (2)	
STMFT 132	Tube Bending (2)	
STMFT 140	Welding Safety and Plate Welding (2)	
STMFT 164	Orbital Welding (2)	
A minimum of 16 units from the following:		16
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**48**

the required program, plus the local ARC General Education Requirement, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Steamfitter apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- discuss the role the steamfitter plays in a safe work site.
- demonstrate all the major safety responsibilities of the steamfitter.
- identify types, sizes, and applications of steam piping.
- research proper practice for boiler safety and operation.
- apply the fundamental principles and uses of water/steam and other gases and chemicals in the piping industry.
- apply concepts in temperature, heat, and energy.
- utilize concepts in electricity including safety procedures, measurement, and simple calculations.
- describe the role of the apprenticeship as it relates to union employment.
- demonstrate proper use of basic drawing and measuring tools associated with the piping trade.
- interpret technical drawings and piping and plumbing diagrams in orthographic and isometric views.
- apply the uses and applications of Computer Aided Drafting (CAD).
- identify methods of joining pipes using compression and flanged joints.
- identify fittings, valves, clamps, and tools used in the industry.
- use an Oxy-Fuel torch to cut and weld materials properly and safely.
- use a shielded metal arc welder properly and safely.
- set up and calibrate orbital welders properly.
- describe and apply relevant plumbing codes and laws.
- use formulas to determine areas, angles, and volumes of pipes and vessels.

Career Information

Steamfitters are in high demand. The steamfitter industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the steamfitting industry.

Welder Apprenticeship Certificate

This certificate includes the training for plumber, pipefitter, and steamfitter welders to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the plumber, pipefitter, and steamfitter welder apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 40 units from the following:		40
PLUMB 241	Trade Mathematics II (2)	
STMFT 100	OSHA and CPR (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 110	Beginning Drawing and Plan Reading for the Piping Trades (2)	
STMFT 120	Trade Mathematics (2)	
STMFT 130	Pipe Shop I (2)	
STMFT 131	Pipe Shop II (2)	
STMFT 140	Welding Safety and Plate Welding (2)	
STMFT 141	Oxygen Acetylene Cutting (2)	
STMFT 145	Pipe Welding (2)	
STMFT 150	Welding V (2)	
STMFT 151	Welding VI (2)	
STMFT 152	Welding VII (2)	
STMFT 153	Welding VIII (2)	
STMFT 160	Welding IX (2)	
STMFT 161	Welding X (2)	
STMFT 164	Orbital Welding (2)	
A minimum of 16 units from the following:		16
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**56**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Welder apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- discuss the role the steamfitter plays in a safe work site.
- demonstrate all the major safety responsibilities of the steamfitter.
- interpret technical drawings and piping and plumbing diagrams in orthographic and isometric views.
- identify types of flanges and gaskets and their common standards, ratings and design.
- identify welding methods and applications.
- identify methods of soldering and joining metals.
- recognize types of brazing methods and their applications.
- use an Oxy-Fuel torch to cut and weld materials properly and safely.
- use a shielded metal arc welder properly and safely.
- solve complex cutting torch problems.
- demonstrate proper set up for and execution of a single overhead vee groove weld.
- demonstrate proper set up for and execution of a single vertical vee groove weld.
- demonstrate proper set up for and execution of a single horizontal vee groove weld.
- create a root bead in a welding coupon in 6G position.
- set up and calibrate orbital welders properly.
- use formulas to determine areas, angles, and volumes of pipes and vessels.

Career Information

Plumber, pipefitter, and steamfitter welders are in high demand. The plumber, pipefitter, and steamfitter industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the plumbing, pipefitting, and steamfitting industry.

Welder Apprenticeship Level I Certificate

This certificate includes the first period training for plumber, pipefitter, and steamfitter welders to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the plumber, pipefitter, and steamfitter welder apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 8 units from the following:		8
PLUMB 241	Trade Mathematics II (2)	
STMFT 100	OSHA and CPR (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 110	Beginning Drawing and Plan Reading for the Piping Trades (2)	
STMFT 120	Trade Mathematics (2)	
STMFT 130	Pipe Shop I (2)	
STMFT 131	Pipe Shop II (2)	
STMFT 140	Welding Safety and Plate Welding (2)	
STMFT 141	Oxygen Acetylene Cutting (2)	
STMFT 145	Pipe Welding (2)	
STMFT 150	Welding V (2)	
STMFT 151	Welding VI (2)	
STMFT 152	Welding VII (2)	
STMFT 153	Welding VIII (2)	
STMFT 160	Welding IX (2)	
STMFT 161	Welding X (2)	
STMFT 164	Orbital Welding (2)	
A minimum of 4 units from the following:		4
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**12**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Welder apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- discuss the role the steamfitter plays in a safe work site.
- demonstrate all the major safety responsibilities of the steamfitter.
- interpret technical drawings and piping and plumbing diagrams in orthographic and isometric views.
- identify types of flanges and gaskets and their common standards, ratings and design.
- identify welding methods and applications.
- identify methods of soldering and joining metals.
- recognize types of brazing methods and their applications.
- use an Oxy-Fuel torch to cut and weld materials properly and safely.
- use a shielded metal arc welder properly and safely.
- solve complex cutting torch problems.
- demonstrate proper set up for and execution of a single overhead vee groove weld.
- demonstrate proper set up for and execution of a single vertical vee groove weld.
- demonstrate proper set up for and execution of a single horizontal vee groove weld.
- create a root bead in a welding coupon in 6G position.
- set up and calibrate orbital welders properly.
- use formulas to determine areas, angles, and volumes of pipes and vessels.

Career Information

Plumber, pipefitter, and steamfitter welders are in high demand. The plumber, pipefitter, and steamfitter industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the plumbing, pipefitting, and steamfitting industry.

Welder Apprenticeship Level II Certificate

This certificate includes the second period training for plumber, pipefitter, and steamfitter welders to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the plumber, pipefitter, and steamfitter welder apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 16 units from the following:		16
PLUMB 241	Trade Mathematics II (2)	
STMFT 100	OSHA and CPR (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 110	Beginning Drawing and Plan Reading for the Piping Trades (2)	
STMFT 120	Trade Mathematics (2)	
STMFT 130	Pipe Shop I (2)	
STMFT 131	Pipe Shop II (2)	
STMFT 140	Welding Safety and Plate Welding (2)	
STMFT 141	Oxygen Acetylene Cutting (2)	
STMFT 145	Pipe Welding (2)	
STMFT 150	Welding V (2)	
STMFT 151	Welding VI (2)	
STMFT 152	Welding VII (2)	
STMFT 153	Welding VIII (2)	
STMFT 160	Welding IX (2)	
STMFT 161	Welding X (2)	
STMFT 164	Orbital Welding (2)	
A minimum of 8 units from the following:		8
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**24**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Welder apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- discuss the role the steamfitter plays in a safe work site.
- demonstrate all the major safety responsibilities of the steamfitter.
- interpret technical drawings and piping and plumbing diagrams in orthographic and isometric views.
- identify types of flanges and gaskets and their common standards, ratings and design.
- identify welding methods and applications.
- identify methods of soldering and joining metals.
- recognize types of brazing methods and their applications.
- use an Oxy-Fuel torch to cut and weld materials properly and safely.
- use a shielded metal arc welder properly and safely.
- solve complex cutting torch problems.
- demonstrate proper set up for and execution of a single overhead vee groove weld.
- demonstrate proper set up for and execution of a single vertical vee groove weld.
- demonstrate proper set up for and execution of a single horizontal vee groove weld.
- create a root bead in a welding coupon in 6G position.
- set up and calibrate orbital welders properly.
- use formulas to determine areas, angles, and volumes of pipes and vessels.

Career Information

Plumber, pipefitter, and steamfitter welders are in high demand. The plumber, pipefitter, and steamfitter industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the plumbing, pipefitting, and steamfitting industry.

Welder Apprenticeship Level III Certificate

This certificate includes the third period training for plumber, pipefitter, and steamfitter welders to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the plumber, pipefitter, and steamfitter welder apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 24 units from the following:		24
PLUMB 241	Trade Mathematics II (2)	
STMFT 100	OSHA and CPR (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 110	Beginning Drawing and Plan Reading for the Piping Trades (2)	
STMFT 120	Trade Mathematics (2)	
STMFT 130	Pipe Shop I (2)	
STMFT 131	Pipe Shop II (2)	
STMFT 140	Welding Safety and Plate Welding (2)	
STMFT 141	Oxygen Acetylene Cutting (2)	
STMFT 145	Pipe Welding (2)	
STMFT 150	Welding V (2)	
STMFT 151	Welding VI (2)	
STMFT 152	Welding VII (2)	
STMFT 153	Welding VIII (2)	
STMFT 160	Welding IX (2)	
STMFT 161	Welding X (2)	
STMFT 164	Orbital Welding (2)	
A minimum of 12 units from the following:		12
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**36**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Welder apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- discuss the role the steamfitter plays in a safe work site.
- demonstrate all the major safety responsibilities of the steamfitter.
- interpret technical drawings and piping and plumbing diagrams in orthographic and isometric views.
- identify types of flanges and gaskets and their common standards, ratings and design.
- identify welding methods and applications.
- identify methods of soldering and joining metals.
- recognize types of brazing methods and their applications.
- use an Oxy-Fuel torch to cut and weld materials properly and safely.
- use a shielded metal arc welder properly and safely.
- solve complex cutting torch problems.
- demonstrate proper set up for and execution of a single overhead vee groove weld.
- demonstrate proper set up for and execution of a single vertical vee groove weld.
- demonstrate proper set up for and execution of a single horizontal vee groove weld.
- create a root bead in a welding coupon in 6G position.
- set up and calibrate orbital welders properly.
- use formulas to determine areas, angles, and volumes of pipes and vessels.

Career Information

Plumber, pipefitter, and steamfitter welders are in high demand. The plumber, pipefitter, and steamfitter industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the plumbing, pipefitting, and steamfitting industry.

Welder Apprenticeship Level IV Certificate

This certificate includes the fourth period training for plumber, pipefitter, and steamfitter welders to meet the Division of Apprenticeship Standards (DAS) journey worker guidelines for the plumber, pipefitter, and steamfitter welder apprenticeship program.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 32 units from the following:		32
PLUMB 241	Trade Mathematics II (2)	
STMFT 100	OSHA and CPR (2)	
STMFT 104	Industrial Rigging (2)	
STMFT 110	Beginning Drawing and Plan Reading for the Piping Trades (2)	
STMFT 120	Trade Mathematics (2)	
STMFT 130	Pipe Shop I (2)	
STMFT 131	Pipe Shop II (2)	
STMFT 140	Welding Safety and Plate Welding (2)	
STMFT 141	Oxygen Acetylene Cutting (2)	
STMFT 145	Pipe Welding (2)	
STMFT 150	Welding V (2)	
STMFT 151	Welding VI (2)	
STMFT 152	Welding VII (2)	
STMFT 153	Welding VIII (2)	
STMFT 160	Welding IX (2)	
STMFT 161	Welding X (2)	
STMFT 164	Orbital Welding (2)	
A minimum of 16 units from the following:		16
HVACR 298	Work Experience in HVAC, & Refrigeration (0.5 - 6)	
PLUMB 298	Work Experience in Plumbers and Pipefitters Apprenticeship (0.5 - 6)	
STMFT 298	Work Experience in Steamfitting Apprenticeship (0.5 - 6)	
Total Units:		**48**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Welder apprentice.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- discuss the role the steamfitter plays in a safe work site.
- demonstrate all the major safety responsibilities of the steamfitter.
- interpret technical drawings and piping and plumbing diagrams in orthographic and isometric views.
- identify types of flanges and gaskets and their common standards, ratings and design.
- identify welding methods and applications.
- identify methods of soldering and joining metals.
- recognize types of brazing methods and their applications.
- use an Oxy-Fuel torch to cut and weld materials properly and safely.
- use a shielded metal arc welder properly and safely.
- solve complex cutting torch problems.
- demonstrate proper set up for and execution of a single overhead vee groove weld.
- demonstrate proper set up for and execution of a single vertical vee groove weld.
- demonstrate proper set up for and execution of a single horizontal vee groove weld.
- create a root bead in a welding coupon in 6G position.
- set up and calibrate orbital welders properly.
- use formulas to determine areas, angles, and volumes of pipes and vessels.

Career Information

Plumber, pipefitter, and steamfitter welders are in high demand. The plumber, pipefitter, and steamfitter industry is not able to hire the amount of certified employees needed to fill the workforce and meet the needs of the industry. Students that are in this apprenticeship program are currently working in the plumbing, pipefitting, and steamfitting industry.

Apprenticeship (APPRT) Courses

APPRT 298 Work Experience in Apprenticeable (Occupation)

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be indentured in an apprenticeship program.

General Education: Local GE L7B

This course provides apprentices the opportunity to participate in an apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the Joint Apprenticeship Committee (JAC) or the Unilateral Training Committee (UTC). Apprentices complete work experience hours at an approved worksite. During the semester, students are required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

APPRT 299 Experimental Offering in Apprenticeship

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

APPRT 498 Work Experience in Apprenticeable (Occupation)

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be registered in an apprenticeship program.

Transferable: CSU

General Education: Local GE L7B

This course provides apprentices the opportunity to participate in an apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the Joint Apprenticeship Committee (JAC) or the Unilateral Training Committee (UTC). It is designed for students interested in apprenticeship programs in transfer-level degree occupational programs.

Apprentices complete work experience hours at an approved

worksite. During the semester, students are required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

APPRT 499 Experimental Offering in Apprenticeship

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

CAL-JACs Firefighter Apprenticeship (CALJA) Courses

CALJA 100 Fire Fighter 100

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Apprentice.

This course is the second in a series for an apprentice Fire Fighter. It provides information on jobs and duties of an apprentice Fire Fighter. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 101 Fire Fighter 101

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Fire Fighter Apprentice

This course is the first in a series for an apprentice Fire Fighter. This course provides information on jobs and duties of an apprentice Fire Fighter. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 102 Fire Fighter 102

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Apprentice.

This course is the third in a series for an apprentice Fire Fighter. It provides information on jobs and duties of an apprentice Fire Fighter. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 103 Fire Fighter 103

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Apprentice.

This course is the fourth in a series for an apprentice Fire Fighter. It provides information on jobs and duties of an apprentice Fire Fighter. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 104 Fire Fighter 104

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Apprentice.

This course is the fifth in a series for an apprentice Fire Fighter. It provides information on jobs and duties of an apprentice Fire Fighter. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 105 Fire Fighter 105

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Apprentice.

This course is the sixth in a series for an apprentice Fire Fighter. It provides information on jobs and duties of an apprentice Fire Fighter. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 110 Fire Fighter 110

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter II Apprentice.

This course is the first in a series for an apprentice Fire Fighter II. It provides information on jobs and duties of an apprentice Fire Fighter II. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 111 Fire Fighter 111

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter II Apprentice.

This course is the second in a series for an apprentice Fire Fighter II. It provides information on jobs and duties of an apprentice Fire Fighter II. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 112 Fire Fighter 112

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter II Apprentice.

This course is the third in a series for an apprentice Fire Fighter II. It provides information on jobs and duties of an apprentice Fire Fighter II. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 113 Fire Fighter 113

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter II Apprentice.

This course is the fourth in a series for an apprentice Fire Fighter II. It provides information on jobs and duties of an apprentice Fire Fighter II. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 114 Fire Fighter 114

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter II Apprentice.

This course is the fifth in a series for an apprentice Fire Fighter II. It provides information on jobs and duties of an apprentice Fire Fighter II. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 115 Fire Fighter 115

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter II Apprentice.

This course is the sixth in a series for an apprentice Fire Fighter II. It provides information on jobs and duties of an apprentice Fire Fighter II. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 120 Wildland Fire Fighter Specialist 120

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Wildland Fire Fighter Specialist Apprentice.

This course is the first in a series for an apprentice Wildland Fire Fighter Specialist. It provides information on jobs and duties of an apprentice Wildland Fire Fighter Specialist. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 121 Wildland Fire Fighter Specialist 121

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Wildland Fire Fighter Specialist Apprentice.

This course is the second in a series for an apprentice Wildland Fire Fighter Specialist. It provides information on jobs and duties of an apprentice Wildland Fire Fighter Specialist. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 122 Wildland Fire Fighter Specialist 122

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Wildland Fire Fighter Specialist Apprentice.

This course is the third in a series for an apprentice Wildland Fire Fighter Specialist. It provides information on jobs and duties of an apprentice Wildland Fire Fighter Specialist. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 130 Fire Suppression Technician 130

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Suppression Technician Apprentice.

This course is the first in a series for an apprentice Fire Suppression Technician. It provides information on jobs and duties of an apprentice Fire Suppression Technician. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 131 Fire Suppression Technician 131

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Suppression Technician Apprentice.

This course is the second in a series for an apprentice Fire Suppression Technician. It provides information on jobs and duties of an apprentice Fire Suppression Technician. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 132 Fire Suppression Technician 132

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Suppression Technician Apprentice.

This course is the third in a series for an apprentice Fire Suppression Technician. It provides information on jobs and duties of an apprentice Fire Suppression Technician. Topics

covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 133 Fire Suppression Technician 133

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Suppression Technician Apprentice.

This course is the fourth in a series for an apprentice Fire Suppression Technician. It provides information on jobs and duties of an apprentice Fire Suppression Technician. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 140 Fire Fighter Diver 140

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Diver Apprentice.

This course is the first in a series for an apprentice Fire Fighter Diver. It provides information on jobs and duties of an apprentice Fire Fighter Diver. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 141 Fire Fighter Diver 141

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Diver Apprentice.

This course is the second in a series for an apprentice Fire Fighter Diver. It provides information on jobs and duties of an apprentice Fire Fighter Diver. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 142 Fire Fighter Diver 142

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Diver Apprentice.

This course is the third in a series for an apprentice Fire Fighter Diver. It provides information on jobs and duties of an apprentice Fire Fighter Diver. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 143 Fire Fighter Diver 143

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Diver Apprentice.

This course is the fourth in a series for an apprentice Fire Fighter Diver. It provides information on jobs and duties of an apprentice Fire Fighter Diver. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 144 Fire Fighter Diver 144

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Diver Apprentice.

This course is the fifth in a series for an apprentice Fire Fighter Diver. It provides information on jobs and duties of an apprentice Fire Fighter Diver. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 145 Fire Fighter Diver 145

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Diver Apprentice.

This course is the sixth in a series for an apprentice Fire Fighter Diver. It provides information on jobs and duties of an apprentice Fire Fighter Diver. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 146 Fire Fighter Diver 146

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Diver Apprentice.

This course is the seventh in a series for an apprentice Fire Fighter Diver. It provides information on jobs and duties of an apprentice Fire Fighter Diver. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 150 Firefighter EMT 150

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Firefighter EMT Apprentice.

This course is the first in a series for an apprentice Firefighter EMT. It provides information on jobs and duties of an apprentice Firefighter EMT. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 151 Firefighter EMT 151

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Firefighter EMT Apprentice.

This course is the second in a series for an apprentice Firefighter EMT. It provides information on jobs and duties of an apprentice Firefighter EMT. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 152 Firefighter EMT 152

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Firefighter EMT Apprentice.

This course is the third in a series for an apprentice Firefighter EMT. It provides information on jobs and duties of an apprentice Firefighter EMT. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 153 Firefighter EMT 153

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Firefighter EMT Apprentice.

This course is the fourth in a series for an apprentice Firefighter EMT. It provides information on jobs and duties of an apprentice Firefighter EMT. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 154 Firefighter EMT 154

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Firefighter EMT Apprentice.

This course is the fifth in a series for an apprentice Firefighter EMT. It provides information on jobs and duties of an apprentice Firefighter EMT. Topics covered in the course are

based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 155 Firefighter EMT 155

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Firefighter EMT Apprentice.

This course is the sixth in a series for an apprentice Firefighter EMT. It provides information on jobs and duties of an apprentice Firefighter EMT. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 156 Firefighter EMT 156

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Firefighter EMT Apprentice.

This course is the seventh in a series for an apprentice Firefighter EMT. It provides information on jobs and duties of an apprentice Firefighter EMT. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 160 Emergency Medical Technician (EMT Basic) 160

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Emergency Medical Technician Apprentice.

This course is the first in a series for an apprentice Emergency Medical Technician. It provides information on jobs and duties of an apprentice Emergency Medical Technician. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 161 Emergency Medical Technician (EMT Basic) 161

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Emergency Medical Technician Apprentice.

This course is the second in a series for an apprentice Emergency Medical Technician. It provides information on jobs and duties of an apprentice Emergency Medical Technician. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 162 Paramedic 162

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: Possess a current EMT-Basic certificate or have possessed a valid EMT-Basic certificate within the past 12 months -or- meet all requirements imposed by the local EMS Agency and the California Emergency Medical Services Authority.

Enrollment Limitation: Student must be a Registered Paramedic Apprentice.

This course is the first in a series for an apprentice Paramedic. It provides information on jobs and duties of an apprentice Paramedic. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 163 Paramedic 163

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: Possess a current EMT-Basic certificate or have possessed a valid EMT-Basic certificate within the past 12 months -or- meet all requirements imposed by the local EMS Agency and the California Emergency Medical Services Authority.

Enrollment Limitation: Student must be a Registered Paramedic Apprentice.

This course is the second in a series for an apprentice Paramedic. It provides information on jobs and duties of an apprentice Paramedic. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 164 Paramedic 164

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: Possess a current EMT-Basic certificate or have possessed a valid EMT-Basic certificate within the past 12 months -or- meet all requirements imposed by the local EMS Agency and the California Emergency Medical Services Authority.

Enrollment Limitation: Student must be a Registered Paramedic Apprentice.

This course is the third in a series for an apprentice Paramedic. It provides information on jobs and duties of an apprentice Paramedic. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 165 Paramedic 165

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: Possess a current EMT-Basic certificate or have possessed a valid EMT-Basic certificate within the past 12 months -or- meet all requirements imposed by the local EMS Agency and the California Emergency Medical Services Authority.

Enrollment Limitation: Student must be a Registered Paramedic Apprentice.

This course is the fourth in a series for an apprentice Paramedic. It provides information on jobs and duties of an apprentice Paramedic. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 168 Paramedic Pre-apprenticeship I

Units: 15

Hours: 180 hours LEC; 270 hours LAB

Prerequisite: High School Diploma or GED; and Current CPR card equivalent to AHA Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care at the healthcare provider level; and one of the following: 1. Possess a current EMT certificate or NREMT-Basic registration; or 2. Possess a current AEMT certificate in the State of California; or 3. Be currently registered as an EMT-Intermediate with NREMT

Enrollment Limitation: Student must be a Registered Firefighter Paramedic Pre-Apprentice.

This course is the first of two pre-apprentice courses for Firefighter Paramedic. It provides information and training necessary to become an apprentice Firefighter Paramedic. Topics covered in the course are based on the needs of the pre-apprentice and the fire agency, with focus on the academy training for the Paramedic occupation or Firefighter Paramedic specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC). Upon completion of both courses, the student will be able to successfully complete the National Registry of Emergency Medical Technicians (NREMT) exams required for paramedic licensure.

CALJA 169 Paramedic Pre-apprenticeship II

Units: 11.5

Hours: 640 hours LAB

Prerequisite: CALJA 168 with a grade of "C" or better; High School Diploma or GED; and Current CPR card equivalent to AHA Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care at the healthcare provider level; and one of the following: 1. Possess a current EMT certificate or NREMT-Basic registration; or 2. Possess a current AEMT certificate in the State of California; or 3. Be currently registered as an EMT-Intermediate with NREMT

Enrollment Limitation: Student must be a Registered Firefighter Paramedic Pre-Apprentice.

This course is the second of two pre-apprentice courses for Firefighter Paramedic. It provides information and training necessary to become an apprentice Firefighter Paramedic. Topics covered in the course are based on the needs of the pre-apprentice and the fire agency, with focus on the academy training for the Paramedic occupation or Firefighter Paramedic specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC). Upon completion of both courses, the student will be able to successfully complete the National Registry of Emergency Medical Technicians (NREMT) exams required for paramedic licensure.

CALJA 170 Hazardous Material Response Technician 170

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: Applicants for an apprentice Hazardous Material Response Technician must be a qualified Journeyperson Fire Fighter or be eligible for equivalent recognition.

Enrollment Limitation: Student must be a Registered Hazardous Material Response Technician Apprentice.

This course is the first in a series for an apprentice Hazardous Material Response Technician. It provides information on jobs and duties of an apprentice Hazardous Material Response Technician. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 171 Hazardous Material Response Technician 171

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: Applicants for an apprentice Hazardous Material Response Technician must be a qualified Journeyperson Fire Fighter or be eligible for equivalent recognition.

Enrollment Limitation: Student must be a Registered Hazardous Material Response Technician Apprentice.

This course is the second in a series for an apprentice Hazardous Material Response Technician. It provides information on jobs and duties of an apprentice Hazardous Material Response Technician. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 172 Hazardous Material Response Technician 172

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: Applicants for an apprentice Hazardous Material Response Technician must be a qualified Journeyperson Fire Fighter or be eligible for equivalent recognition.

Enrollment Limitation: Student must be a Registered Hazardous Material Response Technician Apprentice.

This course is the third in a series for an apprentice Hazardous Material Response Technician. It provides information on jobs and duties of an apprentice Hazardous Material Response Technician. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 173 Hazardous Material Response Technician 173

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: Applicants for an apprentice Hazardous Material Response Technician must be a qualified Journeyperson Fire Fighter or be eligible for equivalent recognition.

Enrollment Limitation: Student must be a Registered Hazardous Material Response Technician Apprentice.

This course is the fourth in a series for an apprentice Hazardous Material Response Technician. It provides information on jobs and duties of an apprentice Hazardous Material Response Technician. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 180 Fire Officer 180

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must be a Journeyperson Fire Fighter or Fire Apparatus Engineer or meet the standards for recognition as a Journeyperson Fire Fighter or Fire Apparatus Engineer.

Enrollment Limitation: Student must be a Registered Fire Officer Apprentice.

This course is the first in a series for an apprentice Fire Officer. It provides information on jobs and duties of an apprentice Fire Officer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 181 Fire Officer 181

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must be a Journeyperson Fire Fighter or Fire Apparatus Engineer or meet the standards for recognition as a Journeyperson Fire Fighter or Fire Apparatus Engineer.

Enrollment Limitation: Student must be a Registered Fire Officer Apprentice.

This course is the second in a series for an apprentice Fire Officer. It provides information on jobs and duties of an apprentice Fire Officer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 182 Fire Officer 182

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must be a Journeyperson Fire Fighter or Fire Apparatus Engineer or meet the standards for recognition as a Journeyperson Fire Fighter or Fire Apparatus Engineer.

Enrollment Limitation: Student must be a Registered Fire Officer Apprentice.

This course is the third in a series for an apprentice Fire Officer. It provides information on jobs and duties of an apprentice Fire Officer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 183 Fire Officer 183

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must be a Journeyperson Fire Fighter or Fire Apparatus Engineer or meet the standards for recognition as a Journeyperson Fire Fighter or Fire Apparatus Engineer.

Enrollment Limitation: Student must be a Registered Fire Officer Apprentice.

This course is the fourth in a series for an apprentice Fire Officer. It provides information on jobs and duties of an apprentice Fire Officer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 184 Fire Officer 184

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must be a Journeyperson Fire Fighter or Fire Apparatus Engineer or meet the standards for recognition as a Journeyperson Fire Fighter or Fire Apparatus Engineer.

Enrollment Limitation: Student must be a Registered Fire Officer Apprentice.

This course is the fifth in a series for an apprentice Fire Officer. It provides information on jobs and duties of an apprentice Fire Officer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 185 Fire Officer 185

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must be a Journeyperson Fire Fighter or Fire Apparatus Engineer or meet the standards for recognition as a Journeyperson Fire Fighter or Fire Apparatus Engineer.

Enrollment Limitation: Student must be a Registered Fire Officer Apprentice.

This course is the sixth in a series for an apprentice Fire Officer. It provides information on jobs and duties of an apprentice Fire Officer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 190 Fire Engineer 190

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must meet the minimum requirements for Fire Engineer of the individual employer; and possess a Class C California Driver's License and a signed verification of driving fire apparatus on a public way signed by the fire fighter and the Fire Chief, or hold a California Class A, B, or C driver's license with the fire fighter endorsement.

Enrollment Limitation: Student must be a Registered Fire Engineer Apprentice

This course is the first in a series for an apprentice Fire Engineer. It provides information on jobs and duties of an apprentice Fire Engineer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 191 Fire Engineer 191

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must meet the minimum requirements for Fire Engineer of the individual employer; and possess a Class C California Driver's License and a signed verification of driving fire apparatus on a public way signed by the fire fighter and the Fire Chief, or hold a California Class A, B, or C driver's license with the fire fighter endorsement.

Enrollment Limitation: Student must be a Registered Fire Engineer Apprentice

This course is the second in a series for an apprentice Fire Engineer. It provides information on jobs and duties of an apprentice Fire Engineer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 192 Fire Engineer 192

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must meet the minimum requirements for Fire Engineer of the individual employer; and possess a Class C California Driver's License and a signed verification of driving fire apparatus on a public way signed by the fire fighter and the Fire Chief, or hold a California Class A, B, or C driver's license with the fire fighter endorsement.

Enrollment Limitation: Student must be a Registered Fire Engineer Apprentice

This course is the third in a series for an apprentice Fire Engineer. It provides information on jobs and duties of an apprentice Fire Engineer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 193 Fire Engineer 193

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must meet the minimum requirements for Fire Engineer of the individual employer; and possess a Class C California Driver's License and a signed verification of driving fire apparatus on a public way signed by the fire fighter and the Fire Chief, or hold a California Class A, B, or C driver's license with the fire fighter endorsement.

Enrollment Limitation: Student must be a Registered Fire Engineer Apprentice

This course is the fourth in a series for an apprentice Fire Engineer. It provides information on jobs and duties of an apprentice Fire Engineer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 200 Fire Apparatus Engineer 200

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Firefighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must possess a valid California driver's license and have either eight months of firefighting experience of two months experience as a certified volunteer firefighter -OR- Meet the minimum requirements for Fire Engineer of the individual employer and possess a Class C California driver's license and a signed verification of driving fire apparatus on a public way signed by the firefighter and the Fire Chief, or hold a California Class A, B or C driver's license with the firefighter endorsement

Enrollment Limitation: Student must be a Registered Fire Apparatus Engineer Apprentice

This course is the first in a series for an apprentice Fire Apparatus Engineer. It provides information on jobs and duties of an apprentice Fire Apparatus Engineer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 201 Fire Apparatus Engineer 201

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Firefighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must possess a valid California driver's license and have either eight months of firefighting experience of two months experience as a certified volunteer firefighter -OR- Meet the minimum requirements for Fire Engineer of the individual employer and possess a Class C California driver's license and a signed verification of driving fire apparatus on a public way signed by the firefighter and the Fire Chief, or hold a California Class A, B or C driver's license with the firefighter endorsement

Enrollment Limitation: Student must be a Registered Fire Apparatus Engineer Apprentice

This course is the second in a series for an apprentice Fire Apparatus Engineer. It provides information on jobs and duties of an apprentice Fire Apparatus Engineer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 202 Fire Apparatus Engineer 202

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Firefighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must possess a valid California driver's license and have either eight months of firefighting experience of two months experience as a certified volunteer firefighter -OR- Meet the minimum requirements for Fire Engineer of the individual employer and possess a Class C California driver's license and a signed verification of driving fire apparatus on a public way signed by the firefighter and the Fire Chief, or hold a California Class A, B or C driver's license with the firefighter endorsement

Enrollment Limitation: Student must be a Registered Fire Apparatus Engineer Apprentice

This course is the third in a series for an apprentice Fire Apparatus Engineer. It provides information on jobs and duties of an apprentice Fire Apparatus Engineer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 203 Fire Apparatus Engineer 203

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Firefighter Joint Apprenticeship Committee (CALJAC) Rules and Regulations, applicants must possess a valid California drivers license and have either eight months of firefighting experience of two months experience as a certified volunteer firefighter -OR- Meet the minimum requirements for Fire Engineer of the individual employer and possess a Class C California drivers license and a signed verification of driving fire apparatus on a public way signed by the firefighter and the Fire Chief, or hold a California Class A, B or C drivers license with the firefighter endorsement

Enrollment Limitation: Student must be a Registered Fire Apparatus Engineer Apprentice

This course is the fourth in a series for an apprentice Fire Apparatus Engineer. It provides information on jobs and duties of an apprentice Fire Apparatus Engineer. Topics covered in

the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 204 Fire Apparatus Engineer 204

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Firefighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must possess a valid California driver's license and have either eight months of firefighting experience of two months experience as a certified volunteer firefighter -OR- Meet the minimum requirements for Fire Engineer of the individual employer and possess a Class C California driver's license and a signed verification of driving fire apparatus on a public way signed by the firefighter and the Fire Chief, or hold a California Class A, B or C driver's license with the firefighter endorsement

Enrollment Limitation: Student must be a Registered Fire Apparatus Engineer Apprentice

This course is the fifth in a series for an apprentice Fire Apparatus Engineer. It provides information on jobs and duties of an apprentice Fire Apparatus Engineer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 205 Fire Apparatus Engineer 205

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: In addition to the minimum qualifications for apprenticeship as stated in Section 8 of the California Firefighter Joint Apprenticeship Committee (CAL-JAC) Rules and Regulations, applicants must possess a valid California driver's license and have either eight months of firefighting experience of two months experience as a certified volunteer firefighter -OR- Meet the minimum requirements for Fire Engineer of the individual employer and possess a Class C California driver's license and a signed verification of driving fire apparatus on a public way signed by the firefighter and the Fire Chief, or hold a California Class A, B or C driver's license with the firefighter endorsement

Enrollment Limitation: Student must be a Registered Fire Apparatus Engineer Apprentice

This course is the sixth in a series for an apprentice Fire Apparatus Engineer. It provides information on jobs and duties of an apprentice Fire Apparatus Engineer. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Firefighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 210 Fire Equipment Specialist 210

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Equipment Specialist Apprentice.

This course is the first in a series for an apprentice Fire Equipment Specialist. It provides information on jobs and duties of an apprentice Fire Equipment Specialist. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 211 Fire Equipment Specialist 211

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Equipment Specialist Apprentice.

This course is the second in a series for an apprentice Fire Equipment Specialist. It provides information on jobs and duties of an apprentice Fire Equipment Specialist. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 212 Fire Equipment Specialist 212

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Equipment Specialist Apprentice.

This course is the third in a series for an apprentice Fire Equipment Specialist. It provides information on jobs and duties of an apprentice Fire Equipment Specialist. Topics

covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 213 Fire Equipment Specialist 213

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Equipment Specialist Apprentice.

This course is the fourth in a series for an apprentice Fire Equipment Specialist. It provides information on jobs and duties of an apprentice Fire Equipment Specialist. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 214 Fire Equipment Specialist 214

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Equipment Specialist Apprentice.

This course is the fifth in a series for an apprentice Fire Equipment Specialist. It provides information on jobs and duties of an apprentice Fire Equipment Specialist. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 215 Fire Equipment Specialist 215

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Equipment Specialist Apprentice.

This course is the sixth in a series for an apprentice Fire Equipment Specialist. It provides information on jobs and duties of an apprentice Fire Equipment Specialist. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 216 Fire Equipment Specialist 216

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Equipment Specialist Apprentice.

This course is the seventh in a series for an apprentice Fire Equipment Specialist. It provides information on jobs and duties of an apprentice Fire Equipment Specialist. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 217 Fire Equipment Specialist 217

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Equipment Specialist Apprentice.

This course is the eighth in a series for an apprentice Fire Equipment Specialist. It provides information on jobs and duties of an apprentice Fire Equipment Specialist. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 270 Fire Fighter Paramedic 270

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Paramedic Apprentice.

This course is the first in a series for an apprentice Fire Fighter Paramedic. It provides information on jobs and duties of an apprentice Fire Fighter Paramedic. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 271 Fire Fighter Paramedic 271

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Paramedic Apprentice.

This course is the second in a series for an apprentice Fire Fighter Paramedic. It provides information on jobs and duties of an apprentice Fire Fighter Paramedic. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 272 Fire Fighter Paramedic 272

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Paramedic Apprentice.

This course is the third in a series for an apprentice Fire Fighter Paramedic. It provides information on jobs and duties of an apprentice Fire Fighter Paramedic. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 273 Fire Fighter Paramedic 273

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Paramedic Apprentice.

This course is the fourth in a series for an apprentice Fire Fighter Paramedic. It provides information on jobs and duties of an apprentice Fire Fighter Paramedic. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 274 Fire Fighter Paramedic 274

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Paramedic Apprentice.

This course is the fifth in a series for an apprentice Fire Fighter Paramedic. It provides information on jobs and duties of an apprentice Fire Fighter Paramedic. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 275 Fire Fighter Paramedic 275

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Paramedic Apprentice.

This course is the sixth in a series for an apprentice Fire Fighter Paramedic. It provides information on jobs and duties of an apprentice Fire Fighter Paramedic. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 276 Fire Fighter Paramedic 276

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Paramedic Apprentice.

This course is the seventh in a series for an apprentice Fire Fighter Paramedic. It provides information on jobs and duties of an apprentice Fire Fighter Paramedic. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 277 Fire Fighter Paramedic 277

Units: 2.5

Hours: 31.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Fire Fighter Paramedic Apprentice.

This course is the eighth in a series for an apprentice Fire Fighter Paramedic. It provides information on jobs and duties of an apprentice Fire Fighter Paramedic. Topics covered in the course are based on the needs of the apprentice and the fire agency, with focus on the related and supplemental instruction specified by the Rules and Regulations of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).

CALJA 298 Work Experience in CAL-JACs Fire Fighter Apprenticeship

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered apprentice with the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC) apprenticeship program.

General Education: Local GE L7B

This course provides CAL-JACs Fire Fighter apprentices the opportunity to participate in an apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the California Fire Fighter Joint Apprenticeship Committee (CAL-JAC).
During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.
Apprentices complete work experience hours at an approved training site. Only one Work Experience course may be taken per semester.

CALJA 299 Experimental Offering in CAL-JACs Firefighter Apprenticeship

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

CALJA 499 Experimental Offering in CAL-JACs Firefighter Apprenticeship

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

California Dept of Corrections and Rehabilitation (CDCR) Courses

CDCR 101 CDCR Basic Academy

Units: 16

Hours: 172 hours LEC; 348 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered CDCR Apprentice.

This course gives related technical instruction to enhance the apprentice's on-the-job training as a correctional officer. Activities are designed to further develop skill, speed, and experience capabilities of correctional officers. It is sponsored by the California Department of Corrections and Rehabilitation (CDCR) and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

CDCR 298 Work Experience in California Department of Corrections and Rehabilitation

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered apprentice with the California Department of Corrections and Rehabilitation apprenticeship program.

General Education: Local GE L7B

This course provides students the opportunity to work in the California Department of Corrections and Rehabilitation apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the California Department of Corrections and Rehabilitation. Students complete work experience hours at approved training sites.
During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.
Only one Work Experience course may be taken per semester.

CDCR 299 Experimental Offering in California Dept of Corrections and Rehabilitation

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

CDCR 499 Experimental Offering in California Department of Corrections and Rehabilit

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Carpentry (CARPT) Courses

CARPT 101 Introduction to Apprenticeship II

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered carpenter apprentice.

This course introduces the beginning carpenter apprentice to industry safety procedures for aerial lift use, Occupational Health and Safety Organization (OSHA) regulations, construction fall protection, and scaffold user safety. It also covers harassment and discrimination in the workplace. This course is the equivalent of course number 002 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 103 OSHA 10-hour Construction Training Course

Units: 0.5

Hours: 10 hours LEC

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Carpenter Apprentice.

This course is designed with Occupational Safety and Health Administration (OSHA) recommendations for the 10-Hour Construction Training Program. It covers recognition, avoidance, abatement, and prevention of occupational hazards in the construction industry which satisfies regulatory and employment requirements in the construction sector.

CARPT 105 CPR for Carpenters Apprentices

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Carpenter's Apprentice

Adhering to American Red Cross guidelines, this course meets the training requirements of the Carpenter's Apprenticeship for adult Cardiopulmonary Resuscitation (CPR). It provides knowledge and skills for emergency life-saving techniques. Respiratory and cardiovascular distress, non-breathing, unconsciousness, choking, and cardiac arrest are addressed. Students receive a certificate upon successful completion of the course.

CARPT 106 Introduction to Apprenticeship I

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice

This course is an introduction to apprenticeship, tools, safety, and construction job sites in the commercial and industrial building sectors. This course is the equivalent of course number 001 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 107 Rigging

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice

This course familiarizes apprentices with the equipment and the procedures to safely rig and hoist various loads on the job-site. Topics include tying knots, splicing rope, calculating loads, hand signals for cranes, and inspecting rigging hardware. This course is the equivalent of course number 019 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 108 Modular System Installer Safety

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpentry Modular Systems Installer Apprentice.

This course introduces the beginning carpenter apprentice to industry safety procedures for aerial lift use, Occupational Health and Safety Association (OSHA) regulations, construction fall protection, and scaffold user safety. It also covers harassment and discrimination in the workplace. This course is the equivalent of course number 1201 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 109 Introduction to Office Modular Systems Installation

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpentry Modular Systems Installer Apprentice.

This course introduces the installation of modular systems including major manufacturers of modular systems, applicable math, blueprints, specifications, and the creation of a realistic installation mockup. It also covers site logistics, layout of components, and personal financial literacy. This course is the equivalent of course number 1202 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 110 Foundations and Floors

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers layout, forming, framing, joist, sub-flooring, and foundation construction. This course is the equivalent of course number 004 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 111 Tool and Equipment Applications

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpentry Modular Systems Installer Apprentice.

This course introduces the Modular Systems Installer Apprentice to proper tool and equipment applications required while assembling and disassembling modular office furniture systems. It also covers personal financial literacy. This course is the equivalent of course number 1203 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 112 Structural Framing

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers basic framing systems and layout of walls, ceilings, and stairwells with wood as well as metal and alternative "green" materials such as manufactured panels. This course is the equivalent of course number 006 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 114 Concrete Formwork Certification

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers planning and building of form work, construction and erection of various concrete forms, and construction materials and methods. It also explores new types of building materials such as recycled and alternative materials. This course is the equivalent of course number 007 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 115 Floor to Ceiling Wall System Construction

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpentry Modular Systems Installer Apprentice.

This course introduces the Modular Systems Installer Apprentice to floor to ceiling modular wall construction. It also covers blueprint reading and understanding manufacturers' system components and parts. This course is the equivalent of course number 1208 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 120 Exterior Finish

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers exterior design, materials, finishes, and methods of application in exterior building construction. Topics include an overview of the hazards of Volatile Organic Compounds (VOCs) and pathogens. This course is the equivalent of course number 008 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 122 Interior Finish

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers interior designs, materials, and methods of application in building construction. Topics include techniques of indoor air quality practices in order to reduce Volatile Organic Compounds (VOCs) and pathogens. This course is the equivalent of course number 011 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 124 Commercial Door Hardware

Units: 1.5

Hours: 22 hours LEC; 15 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice

This course covers the basic skills necessary to successfully install commercial door hardware. Topics include selecting hardware, hanging and adjusting a door, and installing locks, closers, rim devices, door holders, and various accessories. It also covers codes that govern doors and hardware in commercial buildings.

CARPT 125 Drapery, Window Coverings, and Fine Furnishings

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpentry Modular Systems Installer Apprentice.

This course introduces the Modular Systems Installer Apprentice to high-end and custom furniture, wall installations, draperies, and window coverings. It also covers tool selection, skills for proper installation, and manufacturers' specifications. This course is the equivalent of course number 1207 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 130 Layout and Level Instruments

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers the use of leveling devices. It includes reading and interpreting an engineer's rod, horizontal and vertical setting circles, and vernier scaling. Additional topics include construction layout of horizontal and vertical angles, and Leadership in Energy and Environmental Design (LEED) practices for erosion control. This course is the equivalent of course number 012 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 131 Introduction to Working Drawings, Construction Math and Fire Stop Installation

Units: 1.5

Hours: 24 hours LEC; 12 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces Insulator Apprentices to construction math, basic blueprint reading, and fire stop installation. It also covers safe use and maintenance of hand tools.

CARPT 132 Residential Blueprint Reading and Forklift Safety

Units: 1.5

Hours: 24 hours LEC; 12 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces Insulator Apprentices to residential blueprint terminology and interpretation. Forklift safety is also included.

CARPT 133 Residential Insulation and Weatherization

Units: 1.5

Hours: 24 hours LEC; 12 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces the Insulator Apprentice to insulation and weatherization installation. Topics include environmental impact on traditional construction and organizations that provide guidelines and certification for residential insulation and weatherization.

CARPT 134 Commercial Blueprint Reading and Mobile Tower Scaffolds

Units: 1.5

Hours: 24 hours LEC; 12 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces Insulator Apprentices to commercial blueprint terminology and interpretation. It also covers the erection of and safe practices for welded frame mobile and rolling tower scaffolds.

CARPT 135 Commercial and Industrial Insulation and Aerial Lift

Units: 1.5

Hours: 24 hours LEC; 12 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces the Insulator Apprentice to commercial and industrial insulation installation. It also covers the rules and regulations governing the safe use of aerial lifts.

CARPT 136 Energy Conservation Codes and Standards

Units: 1.5

Hours: 24 hours LEC; 12 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces the Insulator Apprentice to energy conservation codes and standards. It also covers Green Advantage certification and CalGreen building code requirements.

CARPT 137 Modular Systems Construction and Quality Control I

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpentry Modular Systems Installer Apprentice.

This course introduces the Modular Systems Installer Apprentices to safe and productive ways to handle modular components on a job site using the proper equipment. It also covers the proper way to lift and move modular components, protection of office equipment, basic furniture assembly, and manufacturers' specifications. This course is the equivalent of course number 1205 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 138 Modular System Construction and Quality Control II

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpentry Modular Systems Installer Apprentice.

This course introduces the Modular Systems Installer Apprentices to advanced modular system construction with a focus on panelized furniture and cubicle partitions including electrical diagrams. It also covers forklift operation and safety per regulations mandated by the Occupational Safety and Health Administration (OSHA). This course is the equivalent of course number 1206 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 140 Interior Systems

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course is a comprehensive study of materials, work processes, and the proper use of tools necessary to install gypsum wallboard and interior metal studs. Topics include green practices used in construction. This course is the equivalent of course number 014 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 141 Suspended Framing Ceiling Systems

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Acoustical Apprentice.

This course introduces the Acoustical Apprentice to the installation of suspended framing ceiling systems and situations which require special installation techniques. It also covers industry standards and manufacturers' recommendations for proper installation of engineered ceilings utilizing the proper tools while following recommended safety procedures. This course is the equivalent of course number 708 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 142 Engineered Structural Systems

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers heavy timber construction in dams, bridges, and trusses. Topics include lamination and the proper disposal and recycling of materials. This course is the equivalent of course number 013 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 143 Commercial Steel Framing

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course is an introduction to basic gypsum wallcovering and ceiling applications. It also includes soffit installation, headers, sills, and rough openings. This course is the equivalent of course number 704 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 144 Grid Ceilings I

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Acoustical Installer Apprentice.

This course introduces the Acoustical Apprentice to the installation of grid ceilings. This course is the equivalent of course number 703 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 145 Grid Ceilings II

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Acoustical Installer Apprentice.

This course introduces the Acoustical Apprentice to the installation of exposed grid, 9/16 inch bolt slot exposed grid, and shadow mold. This course is the equivalent of course number 705 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 146 Specialty Ceiling Systems

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Acoustical Apprentice.

This course introduces the Acoustical Apprentice to the installation of integrated ceiling systems and situations which require special installation techniques. It also covers United Brotherhood of Carpenters (UBC) clean room construction and access floors. This course is the equivalent of course number 711 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 147 Grid Ceilings III

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Acoustical Apprentice.

This course introduces the Acoustical Apprentice to advanced techniques of grid ceiling systems. It also covers industry standards, manufacturers' recommendations for proper installation of clouds, canopies, and blades while following recommended safety procedures. This course is the equivalent of course number 712 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 148 Access Floor Systems

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Acoustical Installer Apprentice.

This course is an introduction to the installation of Access Floor Systems. It also covers hand tool ergonomics, safety, and maintenance. This course is the equivalent of course number 706 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 150 Concrete Bridge Building Certification

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers the use and placement of concrete in box girder bridge construction. Topics include different types of concrete bridges, the use of precast and prestressed components, various formwork designs, formwork hardware, and the different parts of a box girder bridge. This course is the equivalent of course number 010 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 155 Commercial Concrete

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Carpenter Apprentice

This course covers concepts and practices of commercial concrete construction. Topics include layout and construction of bolt patterns, concrete columns, and gang forms, as well as the types and methods used to safely build, shore, and place column caps and concrete decks. This course is the equivalent of course number 018 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 160 Blueprint Reading Basic

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers residential blueprints. Topics include "green" practices, conventions, lines, symbols, measurements, and specifications used for residential construction. This course is the equivalent of course number 005 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 161 Acoustical Blueprint Reading Basic

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers acoustical blueprints, conventions, lines, symbols, measurements, and specifications used for acoustical construction. It also covers the layout of acoustical ceilings. This course is the equivalent of course number 702 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 162 Blueprint Reading Advanced

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers commercial and industrial blueprints. Topics include conventions, lines, symbols, measurements, and specifications used for commercial and industrial construction. It also covers CalGreen codes. This course is the equivalent of course number 009 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 163 Print Reading Measurement and Layout

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpentry Modular Systems Installer Apprentice.

This course is an introduction to blueprint reading, project specifications, and layout for modular systems. It also covers union trust fund benefits. This course is the equivalent of course number 1204 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 164 Blueprint Reading Specialized Acoustical

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpentry Acoustical Apprentice.

This course introduces the Acoustical Apprentice to advanced specialized blueprint reading. It also covers basic construction documents, project scheduling, and labor cost estimation. This course is the equivalent of course number 714 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 166 Acoustical Blueprint Reading Advanced

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers commercial and industrial blueprints. Topics include conventions, lines, symbols, measurements, and specifications used for commercial and industrial construction. This course is the equivalent of course number 707 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 170 Roof Framing

Units: 1.5

Hours: 22 hours LEC; 15 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers roof framing, layout, and construction. Topics include industry terminology, technical information, and construction materials and methods, all of which are used in planning and building several types of roofs. It also covers industry standards and codes.

CARPT 180 Stair Building

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers types, designs, nomenclature, and Uniform Building Code (UBC) requirements for building stairs. Topics include mathematical calculations and layout procedures for constructing stairs, landings, newels, and handrails. This course is the equivalent of course number 015 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 181 Tools of the Trade and Installation of Hardwood Floors

Units: 1.5

Hours: 24 hours LEC; 12 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Hardwood Floor Layer Apprentice.

This course introduces Hardwood Floor Layer Apprentices to the installation of hardwood floors per industry standards. It covers tool and equipment identification, safety, and proper maintenance procedures.

CARPT 182 Finishing and Repairing Floors

Units: 1.5

Hours: 24 hours LEC; 12 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Hardwood Floor Layer Apprentice.

This course introduces Hardwood Floor Layer Apprentices to the process of finishing and repairing hardwood floors per industry standards. It also covers installation of athletic and parquet flooring.

CARPT 190 Introduction to Welding

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice.

This course covers flux-cored arc welding (FCAW) and shielded metal arc welding (SMAW), light gauge welding, and light gauge welding to structural steel. This course is the equivalent of course number 710 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 210 The Acoustical Apprentice, Safety, and the Trade

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered carpentry acoustical apprentice.

This course introduces the acoustical apprentice to fall protection, tool safety and maintenance, and scaffold safety and maintenance. It also covers Occupational Safety and Health Administration (OSHA) 10, First Aid and CPR certifications.

CARPT 211 Introduction to Acoustical Apprenticeship II

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered carpentry acoustical apprentice.

This course introduces the beginning acoustical apprentice to industry safety procedures for aerial lift use, Occupational Health and Safety Administration (OSHA) regulations, construction fall protection, and scaffold user safety. It also covers harassment and discrimination in the workplace. This course is the equivalent of course number 701 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 212 Infection Control Risk Assessment and Hospital Code for Acoustical Installers

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Acoustical Installer Apprentice.

This course introduces the acoustical installer apprentice to the safety procedures for hospital work Infection Control Risk Assessment (ICRA). It also covers applicable building codes of acoustical ceiling systems used in hospitals.

CARPT 213 Acoustical Exterior Systems

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

This course introduces the Acoustical Apprentice to the installation of acoustical exterior systems. It also covers industry standards and manufacturers' recommendations for proper installation and safety for exterior systems. This course is the equivalent of course number 713 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 214 Wall and Ceiling Fabric Installation

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Acoustical Installer Apprentice.

This course introduces the acoustical installer apprentice to the safety and installation procedures for different types of wall and ceiling fabrics. This course is the equivalent of course number 709 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 215 Specialty Systems

Units: 1

Hours: 9 hours LEC; 27 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Acoustical Installer Apprentice.

This course introduces the Acoustical Apprentice to the installation of advanced and specialty ceiling systems. It also covers hand and power tool safety and aerial lift safety. This course is the equivalent of course number 715 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 220 Millwright Tool Skills

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course covers safe and proper use of hand and power tools, layout and applications for taps and dies, and basic metal fabrication. This course is the equivalent of course number 856 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 221 The Millwright Apprentice, the Trade, and 16 Hour Safety

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course will cover Occupational Health and Safety Administration (OSHA) 10, Millwright 16, and Occupational Safety Councils of America (OSCA) 20 hour requirements. Hazard communication identification will also be covered. This course is the equivalent of course number 857 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 222 Millwright Math Applications

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course will cover math applications with decimals, fractions, and conversion methods. First aid, fall protection, and scaffold use are also covered. This course is the equivalent of course number 858 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 223 Cutting and Welding I

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course covers welding and welding concerns for construction job sites. Topics include welding safety, basic welding terms, definitions, positions, and cutting operations. This course is the equivalent of course number 864 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 224 Materials of Construction

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course covers safe and proper installation of grout, concrete, and epoxy forms. Students will also receive confined space training. This course is the equivalent of course number 860 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 225 Layout Procedures for Millwrights

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course provides millwright apprentices the proper method of driving an industrial and rough terrain fork lift. It will also cover proper layout for angular and off camber measurements. This course is the equivalent of course number 861 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 226 Precision Optical Instruments

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course covers General Electric (GE) gas turbine familiarization with an emphasis on green building, Hytorc bolting, and human performance. This course is the equivalent of course number 862 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 227 Blueprint Reading for Millwrights

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course covers millwright blueprints, welding details, and terms and line types. Mobile elevated work platform training will also be covered. This course is the equivalent of course number 863 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 228 Millwright Rigging

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course covers the equipment and procedures for an apprentice to safely rig and hoist various loads on the job site. Topics include knot tying, splicing rope, calculating loads, hand signals for cranes, and inspection of rigging hardware. This course is the equivalent of course number 859 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 229 Welding II SMAW

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course expands on CARPT 223 and furthers the Millwright Apprentice's knowledge of shielded metal arc welding (SMAW) procedures and welding equipment. It also covers the American Welding Society (AWS) requirements for welding 2G, 3G, and 4G, horizontal, vertical, and overhead groove joints with SMAW. This course is the equivalent of course number 865 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 230 Monorails

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course provides the Millwright Apprentice the proper methods of safely erecting monorails. This course is the equivalent of course number 866 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 231 Conveyors for Millwrights

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course introduces the Millwright Apprentice to the safe and effective methods for installing and maintaining conveyor systems. This course is the equivalent of course number 867 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 232 Installation and Maintenance of Machinery

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course introduces the Millwright Apprentice to the proper maintenance of pumps and pump equipment, including alignment, bearings, and gearboxes. This course is the equivalent of course number 868 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 233 Machinery Maintenance for Millwrights

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course covers the basics of millwright machinery maintenance, troubleshooting, and repair.

CARPT 234 Precision Tools and Shaft Alignment

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course introduces Millwright Apprentices to precision measuring tools. It also covers the proper method for using a Rotalign shaft alignment tool. This course is the equivalent of course number 870 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 235 Turbines

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course introduces Millwright Apprentices to hydro, gas, and steam turbines. It covers proper assembly, installation, and maintenance per manufacturer and industry standards.

CARPT 236 Welding III FCAW

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course expands on CARPT 229 and furthers the Millwright Apprentice's knowledge of shielded Flux Core Arc Welding (FCAW) procedures and welding equipment. It also covers safety and certification for 3G, 4G, 3F, and 4G. This course is the equivalent of course number 872 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 237 Compressors

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered Millwright Apprentice.

This course introduces Millwright Apprentices to the different types of compressors found on a construction job site and the uses of each type, including assembly and disassembly techniques.

CARPT 240 Worker Safety and Tool Skills for Pile Drivers

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course introduces Pile Driver Apprentices to the ergonomics, safety, and maintenance of hand and power tools. It also covers hazard recognition in fall protection. This course is the equivalent of course number 278 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 241 The Pile Driver Apprentice and the Trade with Construction Math

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Enrollment Limitation: Must be a registered Pile Driver Apprentice.

This course covers mathematical processes in the construction trade with specific focus on the pile driving industry. It also covers personal financial responsibilities. This course is the equivalent of course number 279 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 242 Pile Driver Rigging

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course addresses the safety regulations and practices related to rigging and rigging hardware. It exceeds the requirements of Occupational Safety and Health Administration (OSHA) Subpart CC, American National Standards Institute (ANSI) A10.42.2000 "Qualified Rigger," and ANSI B30. This course is the equivalent of course number 280 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 243 Concrete Formwork

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course introduces the Pile Driver Apprentice to planning and building of form work, construction and erection of various concrete forms, and the materials and methods used. It also covers new building materials such as recycled and alternative materials. This course is the equivalent of course number 281 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 244 Welding I SMAW

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course introduces the Pile Driver Apprentice to the safety procedures while performing Shielded Metal Arc Welding (SMAW). It also covers equipment identification and welding consumables. This course is the equivalent of course number 282 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 245 Introduction to Pile Driving Land and Water

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course introduces the Pile Driver Apprentice to pile driving practices on land and in water. Topics covered include safety, pile driving equipment, aerial lifts, cranes, and booms. This course is the equivalent of course number 283 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 246 Welding II SMAW

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Piledriver Apprentice.

This course expands on CARPT 244 and the Piledriver Apprentice's knowledge of the appropriate safety procedures when using shielded metal arc welding (SMAW) and oxy-fuel cutting and the associated components. This course focuses on welding groove joints, flat V-groove (1G), and horizontal V-groove (3G and 4G). It also provides certification as a Power Industrial Truck Operator. This course is the equivalent of course number 284 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 247 Advanced Pile Driving Land and Water

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course introduces the Pile Driver Apprentice to advanced pile driving practices on land and in water. Topics covered include understanding pile driving equipment, cranes and booms, rigs, accessories, and pile driving hammers. This course is the equivalent of course number 285 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 248 Wharfage and Marine Structures

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course introduces the Pile Driver Apprentice to pile driving practices used in bridge erection, and the construction of wharf and marine structures. Topics include various types of lumber and heavy timber, their selection, proper application, natural defects, and basic repair work. This course is the equivalent of course number 286 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 249 Welding III: Advanced SMAW

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course expands on CARPT 246 and the Pile Driver Apprentice's knowledge of the appropriate safety procedures when using Shielded Metal Arc Welding (SMAW) and oxy-fuel cutting and the associated components. This course focuses

on welding vertical groove joints (3G). It also covers American Welding Society (AWS) requirements for achieving a welder certification in 3G with SMAW.

CARPT 250 Introduction to Structural Blueprints and Layout Instruments

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course introduces Pile Driver Apprentices to structural blueprint reading and layout. This course is the equivalent of course number 288 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 251 Advanced Structural Blueprints and Bridge Building

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course introduces Pile Driver Apprentices to advanced structural blueprint reading and bridge building. Topics include bridge building practices, safety, pre-stressing, post-tensioning, and steel reinforcement of concrete. Basic concrete testing is also covered. This course is the equivalent of course number 289 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 252 Falsework, Shoring, and Heavy Timber Framing

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course introduces Pile Driver Apprentices to the construction of advanced concrete forms for bridges and shoring with the use of heavy timbers for support, known as falsework. It also covers the various building materials used to create formwork for elaborate decorative architectural designs. This course is the equivalent of course number 290 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 253 Advanced Formwork

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course introduces Pile Driver Apprentices to the construction of advanced concrete forms used in all types of installations. This course is the equivalent of course number 291 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 254 Welding III FCAW

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course expands the Pile Driver Apprentice's knowledge of the appropriate safety procedures when using Flux Core Arc Welding (FCAW). It covers the American Welding Society (AWS) requirements for 1G, 2G, 3G, and 4G certification. This course is the equivalent of course number 292 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 255 Welding IV FCAW Pipe

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Piledriver Apprentice.

This course expands on CARPT 254 and furthers the Pile Driver Apprentice's knowledge of appropriate safety procedures when using flux core arc welding (FCAW). It covers the American Welding Society (AWS) requirements for 2G and 5G certification. This course is the equivalent of course number 293 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 256 Welding VI: FCAW 4G Certification

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course expands on CARPT 255 and the Pile Driver Apprentice's knowledge of the appropriate safety procedures when using Flux Core Arc Welding (FCAW) and oxy-fuel cutting and the associated components. This course focuses on welding vertical groove joints (4G). It also covers American Welding Society (AWS) requirements for achieving a welder certification in 4G with FCAW.

CARPT 257 Pile Driving II

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Pile Driver Apprentice.

This course explains and demonstrates pile driving equipment when using fixed and swinging leads, and vibratory hammers. This course is the equivalent of course number 287 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 260 Introduction to Scaffolds and Confined Space

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces Scaffold Erector Apprentices to the appropriate safety procedures when using scaffolds and working in a confined space. It also covers the proper use and maintenance of hand tools.

CARPT 261 Welded Frame and Mobile Tower Scaffold

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to the industry safety procedures when assembling welded frame and rolling scaffolds.

CARPT 262 System Scaffold

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to industry safety procedures when erecting system scaffold, rolling scaffold, and supported scaffold.

CARPT 263 Hazard Awareness for Scaffold Erectors

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to hazards of erecting and dismantling scaffolds. It also covers aerial lift rules and regulations per industry standards.

CARPT 264 Suspended Scaffolds and Shoring Systems

Units: 1

Hours: 9 hours LEC; 27 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to the safety procedures and industry rules and regulations for suspended scaffolds.

CARPT 265 Tube and Clamp Scaffold

Units: 1

Hours: 9 hours LEC; 27 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to the safety procedures and industry rules and regulations for erecting tube and clamp scaffold systems.

CARPT 266 Blueprint Reading for Scaffold Erectors

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to scaffold blueprint reading.

CARPT 268 Welding II

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to light gauge welding using shielded metal arc welding (SMAW) and flux core arc welding (FCAW). It also covers safety, ergonomics, the safe use of hand and power tools, and tool maintenance.

CARPT 270 Basic Tool Safety for Mill Cabinet

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course introduces the Mill Cabinet Apprentice to apprenticeship, tools, safety, and construction job sites in the commercial and building sectors. This course is the equivalent of course number 901 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 271 Introduction to Mill Cabinet Apprenticeship

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course introduces the beginning carpenter apprentice to industry safety procedures for aerial lift use, Occupational Safety and Health Administration (OSHA) regulations, construction fall protection, and scaffold user safety. It also covers harassment and discrimination in the workplace. This course is the equivalent of course number 902 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 272 Math for the Mill Cabinet Trade

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course covers mathematics applications in the mill cabinet trade with specific focus on mathematical processes related to the production requirements of the industry. This course is the equivalent of course number 903 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 273 Basic Cabinet Making

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course introduces Mill Cabinet Apprentices to basic cabinetry building procedures per industry standards. This course is the equivalent of course number 904 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 274 Basic Blueprint Reading for Mill Cabinet

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course introduces Mill Cabinet Apprentices to blueprint terminology and interpretation. First aid and CPR are also covered. This course is the equivalent of course number 905 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 275 Machinery Maintenance for Mill Cabinet

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course covers the basics of mill cabinet machinery maintenance, troubleshooting, and repair. This course is the equivalent of course number 906 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 276 Hardware Installation

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course introduces new Mill Cabinet Apprentices to basic cabinetry hardware installation procedures. This course is the equivalent of course number 907 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 277 Sanding, Stains, and Finish Preparation

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course introduces the Mill Cabinet Apprentice to the processes of surface preparation for the staining and finishing of solid wood and veneered cabinetry. This course is the equivalent of course number 908 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 278 Advanced Machinery

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course introduces new Mill Cabinet Apprentices to advanced machinery operation procedures. This course is the equivalent of course number 909 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 279 Advanced Blueprint Reading for Mill Cabinet

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course introduces Mill Cabinet Apprentices to advanced blueprint terminology and interpretation. This course is the equivalent of course number 910 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 280 Advanced Cabinet Making

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course introduces Mill Cabinet Apprentices to advanced cabinetry building procedures. This course is the equivalent of course number 911 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 281 Veneers, Laminate, and Finishing

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course introduces the Mill Cabinet Apprentice to the processes of surface preparation for the finishing of laminate, and veneered cabinetry. This course is the equivalent of course number 912 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 282 CAD Basics for Mill Cabinetry

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course introduces the Mill Cabinet Apprentice to computer-aided design and drafting using AutoCAD, Cabinet Vision, and AlphaCAM software systems. This course is the equivalent of course number 913 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 283 Introduction to Computer Numeric Control (CNC)

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course introduces the Mill Cabinet Apprentice to the operation processes, maintenance, and tooling of Computer Numeric Controlled (CNC) machines. This course is the equivalent of course number 914 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 284 Solid Surface Material, Fabrication, and Installation

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course introduces the Mill Cabinet Apprentice to constructing countertops and backsplashes, and finishing products according to industry standards. This course is the equivalent of course number 915 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 285 Advanced Project for Mill Cabinet

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Mill Cabinet Apprentice.

This course introduces the Mill Cabinet Apprentice to advanced cabinetry building procedures per industry standards. This course is the equivalent of course number 916 for the Carpenter's Training Center of Northern California (CTCNC).

CARPT 298 Work Experience in Carpenters Apprenticeship

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered apprentice with the carpenters apprenticeship program.

General Education: Local GE L7B

This course provides students the opportunity to work in the carpenters apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the carpenters Joint Apprenticeship and Training Committee (J.A.T.C.). Students complete work experience hours at approved training sites.
During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

CARPT 299 Experimental Offering in Carpenters Apprenticeship

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

CARPT 498 Work Experience in Carpenters Apprenticeship

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Indentured in the carpenters apprenticeship program.

Transferable: CSU

This course provides students the opportunity to work in the carpenters apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the carpenters Joint Apprenticeship and Training Committee (J.A.T.C.). It is designed for students interested in apprenticeship programs in transfer-level degree occupational

programs. Students complete work experience hours at approved training sites. During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Students may take up to 16 units total across all Work Experience course offerings. This course may be repeated when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

Drywall Finishing (DWLFN) Courses

DWLFN 299 Experimental Offering in Drywall Finishing

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

DWLFN 499 Experimental Offering in Drywall Finishing

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Drywall/Lathers (DRLTH) Courses

DRLTH 100 Introduction to Apprenticeship I

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice

This course is an introduction to drywall/lathing apprenticeship, tools, safety, and construction job sites in the commercial and industrial building sectors. This course is the equivalent of course number 101 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 102 Basic Applications

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice.

This course is an introduction to basic gypsum wall covering and ceiling applications. It also includes soffit installation, headers, sills, and rough openings. This course is the equivalent of course number 102 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 103 Drywall Lathing Trade Safety

Units: 1.5

Hours: 24 hours LEC; 12 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall-Lathing Apprentice.

This course covers trade safety for drywall lathing apprentices including hospital safety, rough terrain lift truck operation, and first aid and CPR.

DRLTH 104 Introduction to Apprenticeship II

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a registered carpenter apprentice.

This course introduces the beginning carpenter drywall/lather apprentice to industry safety procedures for aerial lift use, Occupational Health and Safety Administration (OSHA) regulations, construction fall protection, and scaffold user safety. It also covers harassment and discrimination in the workplace. This course is the equivalent of course number 103 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 105 Mathematics for Drywall/ Lathers

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice

This course covers mathematical applications for the drywall and lathing trades. Topics include whole numbers, fractions, decimals, ratios, proportions, percentages, angles and degrees, areas, and volumes.

DRLTH 110 Residential Metal Framing

Units: 1.5

Hours: 24 hours LEC; 12 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice.

This course covers basic residential metal framing. It includes framing of floors, walls, doors, windows, roofs, trusses, and stairs.

DRLTH 112 Doors, Frames, and Hardware of Windows

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice.

This course covers the hardware, installation, and framing of doors, windows, and exterior wall covering systems. It also covers blueprints and building codes. This course is the equivalent of course number 105 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 120 Blueprint Reading I, First Aid, and CPR

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice.

This course covers job specifications, blueprint structure, and basic blueprint reading and interpretation, construction drawings, sketching, and layout. It also covers First Aid and CPR procedures. This course is the equivalent of course number 106 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 121 Blueprint Reading II

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice.

This course is a continuation of DRLTH 120. Topics include interpretation, problem solving, correlating specifications, prints, addenda, notes, sections, and mathematics used with blueprints. This course is the equivalent of course number 107 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 122 Blueprint Reading III

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice.

This course is a continuation of DRLTH 121. Topics include take-offs, material estimates, material requisition, job costs, and layout from blueprints. This course is the equivalent of course number 108 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 130 Welding Light Gauge

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice.

This course covers welding and welding concepts for construction job sites. Topics include welding safety, basic welding terms, definitions, positions, and cutting operations. This course is the equivalent of course number 110 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 131 Welding Heavy Gauge

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice.

This course is a continuation of DRLTH 130. Topics include safety, concepts, processes, symbols, and certification performance of welding. This course is the equivalent of course number 109 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 140 Commercial Framing Systems and Fire Control

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice.

This course covers safety, principles, theory, and application of advanced fire control systems. Topics include principles and applications of partitions and metal framing. This course is the equivalent of course number 104 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 141 Building Envelope

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall-Lathing Apprentice.

This course covers application and identification of exterior building envelope and metal panel systems. This course is the equivalent of course number 117 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 142 Exterior Lath Systems and Trims

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice.

This course covers principles and application of exterior wall framing, coverings, and trims. This course is the equivalent of course number 112 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 150 Interior Metal Lath Systems

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice.

This course covers materials, principles, theory, and application of lath and plaster interior hollow walls and partitions, including layout for general building arches. This course is the equivalent of course number 113 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 160 Ceiling Systems

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice.

This course covers safety, materials, principles, theory, and installation of ceiling systems, demountable partitions, and shaft systems. This course is the equivalent of course number 114 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 162 Arches, Furring and Advanced Systems

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice.

This course covers safety, materials, principles, theory, and installation of furring, arch systems, and fire retardant materials. This course is the equivalent of course number 115 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 170 Advanced Construction Techniques

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Drywall/Lathing Apprentice.

This course covers safety, materials, principles, and theory of advanced construction techniques. Topics also include following written and verbal directions, construction directly from blueprints, and research techniques. This course is the equivalent of course number 116 for the Carpenter's Training Center of Northern California (CTCNC).

DRLTH 298 Work Experience Drywall/ Lathing Apprenticeship

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered apprentice with the drywall/lathing apprenticeship program.

General Education: Local GE L7B

This course provides students the opportunity to work in the drywall/lathing apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the drywall/lathing Joint Apprenticeship and Training Committee (JATC). Students complete work experience hours at approved training sites. During the semester, students are required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

DRLTH 299 Experimental Offering in Drywall/Lathing Apprenticeship

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Electrical Apprenticeship (ELECT) Courses

ELECT 110 Electrical Apprenticeship I

Units: 5

Hours: 54 hours LEC; 108 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Electrical Apprentice

This course is an introduction to electrical apprenticeship, electrical shop practices, basic electrical layout, tools of the trade, and construction materials. Topics include working with electrical related mathematics and basic electrical formulas.

ELECT 111 Electrical Apprenticeship II

Units: 3

Hours: 21 hours LEC; 99 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Electrical Apprentice

This course covers direct current (DC) theory, DC series and parallel circuits, DC combination circuits, principles of electromagnetism, and power generation. Topics include an introduction to the National Electrical Code (NEC) and basic blueprint reading.

ELECT 120 Electrical Apprenticeship III

Units: 3

Hours: 21 hours LEC; 99 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Electrical Apprentice

This course covers alternating current (AC) theory, AC generation, use of instruments, and phase and circuit calculations. Topics include codeology and how it applies to the National Electrical Code (NEC).

ELECT 121 Electrical Apprenticeship IV

Units: 3

Hours: 21 hours LEC; 99 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Electrical Apprentice

This course covers AC theory in series, parallel, and combination resistive-inductive (RL), resistive-capacitive (RC), inductive-capacitive (LC), and resistive-inductive-capacitive (RLC) circuits. Topics include conduit bending using a ratcheting and mechanical bender, transformer construction and installation, and applications of the National Electrical Code (NEC).

ELECT 130 Electrical Apprenticeship V

Units: 3

Hours: 21 hours LEC; 99 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Electrical Apprentice

This course covers electrical safety-related work practices specified by the National Fire Protection Agency publication 70E (NFPA 70E). It covers industrial blueprint reading, conduit bending using electro-hydraulic benders, and introductions to motor control and semiconductors. Additional topics include applying the National Electrical Code (NEC) with emphasis on grounding and bonding.

ELECT 131 Electrical Apprenticeship VI

Units: 3

Hours: 21 hours LEC; 99 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Electrical Apprentice.

This course covers advanced grounding topics, transformer operation and theory, and advanced industrial blueprint reading. Topics include applying the National Electrical Code (NEC) and emphasis on over-current protection, transformers, and ground fault protection.

ELECT 140 Electrical Apprenticeship VII

Units: 3

Hours: 21 hours LEC; 99 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Electrical Apprentice.

This course covers lightning protection systems, AC and DC motors, motor control systems. Topics include advanced blueprints and electrical room layout, as well as building take-offs.

ELECT 141 Electrical Apprenticeship VIII

Units: 3

Hours: 21 hours LEC; 99 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Electrical Apprentice

This course covers AC motor speed controls, National Electrical Manufacturing Association (NEMA) standards, motor control troubleshooting, digital electronics, and programmable logic controllers (PLCs). Topics include use of the National Electrical Code (NEC) with cable trays, electric welders, phase converters, hazardous locations, and special occupancies.

ELECT 150 Electrical Apprenticeship IX

Units: 3

Hours: 21 hours LEC; 99 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Electrical Apprentice

This course covers fire alarms, security, power quality, stewardship training, and photo-voltaic systems. It also includes preparation for the California Electrician Certification examination.

ELECT 151 Electrical Apprenticeship X

Units: 3

Hours: 21 hours LEC; 99 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Electrical Apprentice

This course covers building automation, structured cabling systems, and an introduction to instrumentation used on industrial process controls. It also covers advanced programmable logic controllers (PLCs) used in motor-controlled circuits.

ELECT 281 Green Technology High Efficiency Lighting

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be a current California State Certified General Electrician.

This course covers installing, troubleshooting, commissioning and maintaining advanced lighting controls, switching controls, dimming controls, occupancy sensors, photo-sensors and controllers, distribution relay systems, remote controlled circuit breakers, and wireless systems. Pass/No Pass only.

ELECT 298 Work Experience in Electricians Apprenticeship

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered apprentice with the electricians apprenticeship program.

General Education: Local GE L7B

This course provides students the opportunity to work in the electricians apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the electricians Joint Apprenticeship and Training Committee (JATC). Students complete work experience hours at approved training sites. During the semester, students are required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

ELECT 299 Experimental Offering in Electricians Apprenticeship

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Elevator (ELEVA) Courses

ELEVA 100 Elevator New Hire Program

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

The course is intended to introduce probationary employees to National Elevator Industry Educational Program (NEIEP). NEIEP is structured to provide students with an opportunity to become acquainted with the different learning approaches available to them as students in the program. This course provides the fundamental tools required of an apprenticeship to become successful in their career as an elevator constructor.

ELEVA 101 Elevator Trade Skills

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: None.

This course introduces the responsibilities of an elevator apprentice. It includes the elevator apprenticeship rules and regulations, record keeping, evaluations and advancement, work ethic, safety, and basic tools. It acquaints the elevator apprentice with specifications that constitute a safe working environment under the Occupational Safety and Health Administration (OSHA); including an introduction to the rights and obligations that OSHA imposes. In addition, this course provides an orientation and overview of the history of the elevator trade.

ELEVA 102 Elevator Hoistway Structures

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: None.

This course reinforces the responsibilities of an elevator apprentice. It includes the elevator apprenticeship rules and regulations, and proper use of tools used in the elevator trade. This course helps the elevator apprentice understand how to build and install essential elevator hoistway, pit, and machine room structures.

ELEVA 103 Elevator Electrical Fundamentals

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

This course covers an in-depth review of mathematics needed for electrical fundamentals and the basic theory of DC electrical, AC electrical, circuits, electromagnetism, and testing equipment.

ELEVA 104 Elevator Electrical Theory and Application

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: None.

This course teaches theory of electrical components, applications, and real testing procedures. It provides instruction in electrical applications and electrical measurements that are required for an apprentice to be successful in their career as an elevator constructor.

ELEVA 105 Elevator Installation

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

This course takes the apprentice from a simple platform and bare hoistway to the piping, planning, and wiring of the elevator system. It also provides the information needed to install and type of door system. It finishes with an overview of preventative and scheduled maintenance.

ELEVA 106 Elevator Solid State Electronics

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

This course covers advanced electrical and solid state electronics. It emphasizes solid state components and hands-on labs to build the apprentice's electrical knowledge.

ELEVA 107 Elevator Power and Logic

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: None.

This course covers the fundamental circuits found in elevators control systems. It also covers basic control logic through complex logic and troubleshooting.

ELEVA 108 Advanced Topics in Elevators

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

This course covers hydraulic elevators and non-traditional types of elevators. It also covers escalators, residential, and rack and pinion systems.

ELEVA 298 Work Experience in Elevator Apprenticeship

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered apprentice with the Elevator apprenticeship program.

General Education: Local GE L7B

This course provides students the opportunity to work in the Elevator Apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the Elevator Joint Apprenticeship and Training Committee (JATC). Students complete work experience hours at approved training sites. During the semester, students are required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

ELEVA 299 Experimental Offering in Elevator

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

ELEVA 499 Experimental Offering in Elevator

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Floor Covering (FLCVR) Courses

FLCVR 299 Experimental Offering in Floor Covering

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

FLCVR 499 Experimental Offering in Floor Covering

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Flooring Installation (INSTL) Courses

INSTL 100 Orientation and OSHA 10

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course focuses on orienting and offering the student the information and basic knowledge to be successful and safe as the newest member of the workforce. Orientation provides points of contact and information pertinent to the Training Center, the Council, and the United Brotherhood of Carpenters (UBC). Occupational Safety and Health Administration (OSHA) 10 is covered to ensure safe practices are reinforced. Safe use of hand and power tools along with material handling are covered in depth. Job site etiquette, knowledge, rules, and documentation are discussed. This course is the equivalent of course number 001 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 102 Substrate Preparation

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course focuses on preparing the substrate to receive a finished flooring product or process. We explore the most effective ways to adjust imperfections or contaminants. Special focus is given for using Portland-based cementitious and Gypsum-based patching compounds. Wood underlay installation and issues are discussed. Quantitative and qualitative moisture test procedures are also covered. This course is the equivalent of course number 102 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 103 Concrete Polishing

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course is an introduction to the process of concrete polishing. The concepts, skills, and processes covered will prepare students to identify jobsite conditions with concrete polishing, defects and remedies, cracks, saw cuts, tooling, equipment and safety. Emphasis will be placed on selecting the proper tooling, Moh's hardness testing procedure, chemicals involved in the polishing process, and checking results through a gloss meter. This course is the equivalent of course number 103 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 104 Adhesives and Layout

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This class focuses on the types of adhesives used in floor covering and application methods. The concepts are utilized in the installation of square resilient tile. A straight lay and 45 degree installation are performed. Proper cutting around door jambs and obstacles is covered. This course is the equivalent of course number 104 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 105 Wall Base

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course focuses on various wall base installations related to common straight and toed wall base, as well as specialty base including resilient millwork base, tapered base, contoured base, stackable trim molding sanitary base, and caulk tight base. Proper cutting, gluing, and installation processes are covered. This course is the equivalent of course number 105 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 106 Introduction to Resilient

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course focuses on the different types of resilient flooring. It covers homogeneous, heterogeneous, linoleum, and rubber products along with common installation techniques and methods. A flat lay installation is completed with properly constructed seam using the underscribe method. Heat welding is also introduced including the tools, methods, and concepts of a properly welded seam. This course is the equivalent of course number 201 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 107 Complex Layout

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course focuses on the principles encountered in complex layouts. Students demonstrate how to scale down a basketball court, hockey rink, or some other large-scale design mathematically by means of a sketch for the purposes of a full-scale project. After working out the math and creating a scaled sketch, students install the project based on our drawing. This course is fundamental to the skills and abilities of an accomplished floor layer. This course is the equivalent of course number 202 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 110 Resilient Linoleum

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course covers linoleum installation and seaming. It addresses the process used to cut, fit, and install linoleum, including seam creation and sealing. The process of how to properly handle, store, and plan for a linoleum installation is also covered. A review of linoleum history and how it's made and used in today's buildings is also covered. This course is the equivalent of course number 203 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 111 Hardwood Installation

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course follows National Wood Flooring Association (NWFA) standards. This class provides a third-party certification on hardwood floor installation and testing for both glue down and nail installation. This course is the equivalent of course number 204 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 112 Glue Down Carpet Installation

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course is an introduction to carpet and installation. It focuses on matching patterned carpets. A review of carpet tools, fibers, layout, and seam cutting techniques is included. Glue down installation and the tools used in the process are covered. This course is the equivalent of course number 205 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 113 Stretch-In Carpet Installation

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This class focuses on a stretch-in installation as opposed to a glue-down installation covered in the previous class. Hot melt seaming, the use of the Kool-Glide seam system, and properly making T-Seams are covered. This course is the equivalent of course number 301 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 114 Introduction to Flash Cove

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course covers the many different processes and techniques applicable to flash cove installation. It focuses on proper cove cap and cove stick installation and the understanding of the concepts of flash cove installation; also known as internal base installation. This course serves as an important step in understanding the fundamentals, terminology, and skills required in all flash-coved installations, including T-template, Pattern-Scribed, Boot-Plug, and Sheet Installation with a contrast to the full pattern method. This course is the equivalent of course number 302 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 115 Resilient Flash Cove

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course brings together concepts from INSTL 106 (Introduction to Resilient) and INSTL 114 (Introduction to Flash Cove) to complete a flash cove installation using the hand-fit method using vinyl sheet goods. The boot-plug and v-plug outside corner option are also covered. This course is the equivalent of course number 303 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 120 Hardwood Sand and Finish

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This class focuses on the methods, materials, and equipment utilized when finishing hardwood floors. It discusses game lining and artwork applications as well as water-based and oil-based finishes. It also touches on the main difference between sanding and finishing a raw wood installation versus re-sanding a previous installation, especially of pre-finished factory wood. This course is the equivalent of course number 304 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 121 Advanced Heat Welding

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This class focuses on methods required for more complex tasks such as welded seam intersections, difficult flash cove situations, and curved or circular seams. Advanced welding techniques along with cold weld rubber and other resilient flooring seams are covered. This course is the equivalent of course number 305 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 122 Resilient Stairs

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course covers the planning and preparation required for stair installations, which includes precise measurements, careful scribing, and cutting. These tasks are explained in this course using sheets of resilient material or standard size prefabricated stringers, treads, and risers. It also covers installation of single piece tread and riser sections on steps with various nosing types, including those with angular ADA-compliant profiles and flash cove resilient flooring on stairs. This course is the equivalent of course number 401 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 123 Polished Overlay

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course combines the skills and fundamental concepts of surface preparation and concrete polishing. Pouring and finishing a topping requiring a high degree of skill and attention to detail is covered. This course is the equivalent of course number 402 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 124 Carpet Stairs

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course covers the installation of carpet on floating stairs, winder stairs with balusters, and simple box stairs. It also briefly covers the laying of more intricate carpet tile found in some flooring installations. This course is the equivalent of course number 403 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 125 Turf and Rugmaking

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course describes the history and characteristics of artificial turf and explains how it is manufactured and installed. It also introduces hand-sewing carpet seams and includes a rugmaking project. This course is the equivalent of course number 404 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 126 Custom Insets

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Apprentice.

This course covers resilient installations involving a wide array of colorful symbols, complex designs, and other permanent markings as a custom inset used for visual appeal or identity to the use of the building, room, or area. It focuses on the placement of the precisely laid outlines and circles that may be specified under these circumstances. These challenging installations will be accomplished in the process of the test-out procedure. This course is the equivalent of course number 405 for the Carpenter's Training Center of Northern California (CTCNC).

INSTL 298 Work Experience in Flooring Install Carpentry Apprenticeship

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Flooring Install Carpentry Apprentice.

General Education: Local GE L7B

This course provides students the opportunity to work in the Flooring Install Apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the Carpenters Apprenticeship program. Students complete work experience hours at approved training sites.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

INSTL 299 Experimental Offering in Flooring Installation

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

INSTL 499 Experimental Offering in Flooring Installation

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Glazing Apprenticeship (GLAZ) Courses

GLAZ 299 Experimental Offering in Glazing Apprenticeship

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

GLAZ 499 Experimental Offering in Glazing Apprenticeship

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

HVAC and Refrigeration (HVACR) Courses

HVACR 101 Electrical Theory I

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course introduces concepts of electrical principles used in air conditioning and refrigeration. Topics include meters, circuits, contactors, relays, thermostats, pressure switches, motors, overloads, circuitry, troubleshooting, Kirchhoff's Law, and Ohm's Law. Safety topics for the Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) industry will also be covered. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 102 Electrical Theory II

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered HVACR Apprentice.

Advisory: HVACR 101

This course presents advanced concepts of electrical principles used in air conditioning and refrigeration. Topics include installation of heating, cooling, and refrigeration systems; basic electric motors and their components; contactors, relays, and overloads; thermostats, pressure switches, common electrical components used on a schematic, and other electric control devices; heating control devices; and troubleshooting. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 110 Mechanical Refrigeration Theory

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course presents the study of the design, assembly, and operation of compression systems. Topics include basic liquid and vapor control and metering devices as well as the design and construction of system piping including techniques of leak detection, dehydration of systems, charging methods, recovery and troubleshooting. In addition, safety, torch techniques, cutting, fitting, and brazing of various copper projects will be explored. Further, the techniques for isometric drawing and pipe symbols for soldering and brazing will be practiced. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for

apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 111 Refrigeration Cycle

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course covers the design, assembly, and operation of refrigeration compression systems. Topics include charging, recovery, recycling, and reclamation; installation of heat pumps, safety procedures, leak testing and troubleshooting. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 120 Intermediate Electrical I

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

Advisory: HVACR 101 with a grade of "C" or better

This course introduces basic series and parallel circuits related to air conditioning (AC) and refrigeration. Motors, relays, contactors, thermostats, pressure switches and overloads will be examined and wired. Emphasis will be placed on electrical circuit troubleshooting. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 122 Intermediate Electrical II

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

Advisory: HVACR 120 with a grade of "C" or better

This course presents continued study of series and parallel circuits related to complex air conditioning (AC) and refrigeration systems. Advanced applications for motors, relays, contactors, thermostats, magnetic starters, pressure switches and overloads are examined and wired. Emphasis is placed on electrical circuit troubleshooting. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 130 Intermediate Mechanical Refrigeration I

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course covers components and applications of refrigeration systems; electric, gas, oil, and alternative (stoves, fireplace inserts, and solar) heating; indoor air quality, comfort and psychometrics; and refrigeration applied to air conditioning. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 132 Intermediate Mechanical Refrigeration II

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

Advisory: HVACR 130 with a grade of "C" or better

This course presents the practical and theoretical aspects of Heating, Ventilation, Air Conditioning and Refrigeration (HVACR). Topics include gas controls, gas ignition systems, furnace installation practices, ventilation, combustion air, gas furnace troubleshooting and safety. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 140 Electrical Troubleshooting I

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course covers advanced electrical controls with special emphasis on troubleshooting and repair. Topics include proportional controls, economizers and variable air volume (VAV) controls and motors. Safety procedures will be stressed. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 142 Electrical Troubleshooting II

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

Advisory: HVACR 140 with a grade of "C" or better

This course presents additional topics in advanced electrical controls with emphasis on troubleshooting and repair. Topics include proportional, open/closed transition, pump, fans, economizers, and variable air volume (VAV) controls, as well as motor starting techniques including variable frequency drives (VFDs). Safety procedures are also emphasized. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 144 Introduction to Direct Digital Controls

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course covers direct digital controls (DDC) as they apply to the Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) industry. Techniques to troubleshoot and diagnose hardware and software problems with DDC systems will be presented. The course includes hands-on wiring, testing, and programming of typical components found in the industry. Basic programming languages and pneumatic actuators to better understand the internal operation of the system will also be introduced. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 146 Introduction to Variable Frequency Drives

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course provides an introduction to variable frequency drives (VFD's), applications of use, and limited troubleshooting. Parameterization for startup, open loop, closed loop, floating point, and preset speed profiles are covered. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 150 Introduction to Pneumatic Controls

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course presents the operation of direct and reverse acting controls, air compressors, sizing of valves and dampers, thermostats, auxiliary devices, transmitters, pneumatic and receiver controllers. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 152 Introduction to Boilers

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course covers the components and operation of boiler systems used in hotels, apartment buildings, schools, and other large institutions. A comprehensive overview of the safe and efficient operation of high-pressure boilers and related equipment is provided, including the latest combustion

control technology, and Environmental Protection Agency (EPA) regulations and their implications. This course is designed to prepare students for licensing examinations. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 154 Advanced Compressor and Motor Theory

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

The course presents reciprocating compressor disassembly and assembly. Topics include compressor function, safety, troubleshooting, alignment, and performance. Unloaders, oils, electrical, refrigerant gas, starters, and start-up procedures will also be explored. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 156 Variable Refrigeration Flow

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered HVACR Apprentice.

This course covers different sections of HVACR equipment, including electrical systems, refrigeration systems, air flow, principles of lubrication within mechanical systems, along with proper sequence of operation of refrigeration and air conditioning systems. This includes techniques of leak detection, evacuation of systems, charging methods, recovery and troubleshooting. In addition, torch techniques, cutting, fitting, and brazing of various copper projects will be explored.

It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 160 Introduction to Market Refrigeration Systems

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course covers refrigeration equipment, cases, defrost methods, timers, control devices, oil float systems, and heat reclaim controls. Topics include print reading, wiring and piping diagrams, and refrigeration schedule in a typical market setting. Operation and location of compressors, evaporators, condensers, refrigerated cases, walk-ins, heat reclaim, and connecting paraphernalia are also presented. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 161 Introduction to CO2 Systems

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered HVACR Apprentice.

This course covers the most common refrigeration equipment such as cases, defrost methods, timers, control devices, oil float systems, and heat reclaim controls. Typical market systems are explored. Also, refrigeration schedules and piping diagrams in conjunction with laying out undergrounds and overheads in a typical market are discussed. Understanding all aspects of component operation and location including compressors, evaporators, condensers, refrigerated cases, walk-ins, heat reclaim and connecting components, valves, driers, etc. are covered. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 165 Brazing and Soldering

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered HVACR Apprentice.

This course covers the practical and theoretical aspects of soldering and brazing tool processes. Topics include the proper use of basic trade tools for processes such as soldering, brazing, threading pipes, and Nitrogen purging. Safe work practices will be emphasized. R78 certification is achieved to complete the course. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 170 Start Test Balance Water Side I

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course introduces the basic principles of air and water flow. The Mollier diagram is used to apply these principles to air conditioning and refrigeration. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 171 Start Test Balance Water Side II

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

Advisory: HVACR 170 with a grade of "C" or better

This course describes proper procedures for start, test, and balance of air conditioning systems utilizing principles of air and water flow. Topics include sizing of refrigerant piping for liquid, the benefits of psychrometrics on human comfort, fan laws, air movement, pumps, piping, evaporative cooling, and air and water measurement. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 173 Start Test Balance Air Side I

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course provides an overview of commercial air conditioning systems operations. Topics include direct expansion (DX) and chiller systems, fan types, pumps, boiler controls, related systems, and service methods. The use and application of heat load equations, charts, and procedures is introduced. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 174 Start Test Balance Air Side II

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

Advisory: HVACR 173 with a grade of "C" or better

This course provides an overview of commercial air conditioning systems emphasizing air distribution, heat flow, and service methods. Students also investigate air measurement and the impact of duct design on air distribution. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 176 Title 24 Certification

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered HVACR Apprentice.

This course covers Introduction to the Non-Residential Building Efficiency Standards. California State Title-24 Parts 1 and 6 and associated regulations. It is sponsored by the United

Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

HVACR 298 Work Experience in HVAC, & Refrigeration

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

General Education: Local GE L7B

This course provides students the opportunity to work in the HVAC & Refrigeration apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the United Association of Union Plumbers, Fitters, Welders, and Service Technicians. Students complete work experience hours at approved training sites.
During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

HVACR 299 Experimental Offering in HVAC, & Refrigeration

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

HVACR 499 Experimental Offering in HVAC, & Refrigeration

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Insulator (INSUL) Courses

INSUL 120 Blueprint for Insulator I

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces Insulator Apprentices to blueprints used in the insulation industry. Fire barrier, smoke barrier, and Underwriters Laboratory (UL) systems are also covered. This course is the equivalent of course number 503 for the Carpenter's Training Center of Northern California (CTCNC).

INSUL 124 Advanced Submittal and Blueprint with Plan Grid and Field Wire

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course offers Insulator Apprentices an introduction to Plan Grid, Pro Core, and Field Wire. It also covers the plan submittal process. This course is the equivalent of course number 510 for the Carpenter's Training Center of Northern California (CTCNC).

INSUL 161 Residential Insulation Blow-In

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces the Insulator Apprentice to insulation installation. Topics include insulation and vapor barrier types and installation processes. This course is the equivalent of course number 504 for the Carpenter's Training Center of Northern California (CTCNC).

INSUL 163 Spray In Foam Application

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces the Insulator Apprentice to benefits, dangers, and types of spray foam applications. This course is the equivalent of course number 507 for the Carpenter's Training Center of Northern California (CTCNC).

INSUL 165 Thermal Insulation Sprayed

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces Insulator Apprentices to the basic application of sprayed thermal insulation. This course is the equivalent of course number 509 for the Carpenter's Training Center of Northern California (CTCNC).

INSUL 181 Walls, Slabs, and Joints

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces Insulator Apprentices to curtain wall, head of wall, and edge and floor slab insulation. This course is the equivalent of course number 505 for the Carpenter's Training Center of Northern California (CTCNC).

INSUL 183 Expansion Joints

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces the Insulator Apprentice to expansion joints, their importance and function, as well as proper installation methods. This course is the equivalent of course number 508 for the Carpenter's Training Center of Northern California (CTCNC).

INSUL 191 Introduction to Firestop

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces Insulator Apprentices to the basic application of firestop. Firestop Certification and an introduction to life safety will also be covered. This course is the equivalent of course number 502 for the Carpenter's Training Center of Northern California (CTCNC).

INSUL 193 Fire Proofing

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces Insulator Apprentices to fire proofing and components used in the fire proofing process. Hilti and Specified Technologies Incorporated (STI) certification may be obtained. This course is the equivalent of course number 506 for the Carpenter's Training Center of Northern California (CTCNC).

INSUL 195 Fire Stop II Specialty Systems

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

This course introduces Insulator Apprentices to the shaft wall system, grease and air ducts, duct wrap insulation, and access door installation. This course is the equivalent of course number 511 for the Carpenter's Training Center of Northern California (CTCNC).

INSUL 298 Work Experience in Insulator Apprenticeship

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Insulator Apprentice.

General Education: Local GE L7B

This course provides students the opportunity to work in the insulator apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the Carpenters Apprenticeship. Students complete work experience hours at approved training sites.
During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

INSUL 299 Experimental Offering in Insulator

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

INSUL 499 Experimental Offering in Insulator

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Iron Workers (IW) Courses

IW 100 Orientation and History of the Trade

Units: 2

Hours: 26 hours LEC; 30 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course introduces the responsibilities of an Ironworker's Apprentice. It includes the Ironworker's rules and regulations, record keeping, evaluations and advancement, work ethic, sexual harassment issues, and basic tools. It acquaints the Ironworker Apprentice with specifications that constitute a safe working environment under the Occupational Safety and Health Administration (OSHA), including an introduction to the rights and obligations that OSHA imposes. In addition, this course provides an orientation and overview of the history of the Ironworker trade.

IW 101 OSHA 30 for Ironworkers

Units: 2

Hours: 26 hours LEC; 30 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course provides the ironworker apprentice with the safety standards and regulations for construction project sites as required by the Occupational Safety and Health Administration (OSHA). Topics include general safety and health provisions, OSHA citation policies, fire protection and prevention, fall protection, personal protection equipment (PPE), safe handling and storage of materials, steel erection, and lifesaving practices and equipment.

IW 110 Mixed Base

Units: 1.5

Hours: 12 hours LEC; 45 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course provides an overview of the type of construction blueprints commonly used with emphasis on function and interpretation. It offers a brief review of basic math skills and provides an opportunity to apply these skills in solving typical problems relevant to the Ironworker trade.

IW 120 Rigging

Units: 1.5

Hours: 12 hours LEC; 45 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course introduces rigging applications such as wire rope, chains, slings, cranes, helicopters, ladders, and scaffolds. It also includes rigging safety, knot recognition and strength identification, and knot applications within rigging.

IW 130 Reinforcing I

Units: 1.5

Hours: 12 hours LEC; 45 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course introduces standard codes, code classifications, plans, schedules, charts, and specifications commonly used by Ironworkers. Topics include construction techniques used in reinforcing concrete members with steel, use of bar supports, placement of reinforcing iron, and general principles of bar splicing and welding. This course also introduces post-tensioning and pre-stressing techniques.

IW 131 Reinforcing II/Post Tensioning

Units: 1.5

Hours: 12 hours LEC; 45 hours LAB

Prerequisite: IW 130 with a grade of "C" or better

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course expands the interpretation of standard codes, code classifications, plans, schedules, charts, and specifications commonly used in the Ironworker trade. It provides an in-depth presentation of construction techniques, use of bar supports, placement of reinforcing iron, general principles of bar splicing, and welding.

IW 140 Precast Concrete and Metal Buildings

Units: 1.5

Hours: 12 hours LEC; 45 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course covers the erection of precast concrete and metal buildings. Topics include rigging, handling, and installing of structures in a safe and economical manner. It also covers reading and interpreting charts, tables, and blueprints.

IW 150 Welding I

Units: 1.5

Hours: 12 hours LEC; 45 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course introduces the structure of ferrous metals and their reaction to heat. It covers the equipment and materials used for shielded metal-arc welding including safety hazards, charts, key terms, electrodes, and welding current controls.

IW 151 Welding II

Units: 1.5

Hours: 12 hours LEC; 45 hours LAB

Prerequisite: IW 150 with a grade of "C" or better

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course continues the study of ferrous metals and their reactions to heat. It includes equipment and materials employed in the use of shielded metal-arc and gas shielded-arc welding.

IW 152 Welding III

Units: 1.5

Hours: 12 hours LEC; 45 hours LAB

Prerequisite: IW 151 with a grade of "C" or better

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course focuses on skill development in shielded metal arc and flux core arc welding on ferrous and non-ferrous metals. It covers vertical and overhead welding positions on all types of joints as they relate to structural stability.

IW 158 Advanced Welding Shop

Units: 0.5 - 16

Hours: 27 - 864 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Ironworker Apprentice.

This course gives related technical instruction to enhance the apprentice's on-the-job training in welding and related technology. Activities are designed to further develop skill, speed, and experience capabilities of Ironworker apprentices to meet American Welding Society (AWS) standards and certifications. Course may be repeated up to four times but may not exceed the maximum unit value. Repetition of the course allows the student to focus on a different welding certification for each enrollment. It is sponsored by Ironworkers Local 377 and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

IW 160 Lead Hazard

Units: 2

Hours: 26 hours LEC; 30 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course describes the health effects caused by lead exposure. Topics include the Occupational Safety and Health Administration (OSHA) regulations, sampling methods, legal rights of workers, and the use of proper protective equipment and work methods.

IW 170 Structural I

Units: 1.5

Hours: 12 hours LEC; 45 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course covers the theory and practice of blueprint reading, structural erection procedures, and proper steel structure construction.

IW 171 Structural II

Units: 1.5

Hours: 12 hours LEC; 45 hours LAB

Prerequisite: IW 170 with a grade of "C" or better

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course addresses the theory and practice of blueprint reading related to structure construction. Topics include structural erection procedures including the operation of mobile and tower cranes and proper construction of various steel structures.

IW 180 Architectural/Ornamental I

Units: 1.5

Hours: 12 hours LEC; 45 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course covers the procedures and practices employed by the Ironworker in architectural and ornamental iron-working. Topics include tools, anchors, fasteners, and various layout instruments. Additionally, it covers constructing curtain wall systems, applying sealants, and glazing systems.

IW 183 The History of Ironworkers

Units: 3

Hours: 56 hours LEC

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course covers the history of iron-working and the Ironworker Union movement from its birth in 1896 to the present.

IW 186 Architectural/Ornamental II

Units: 1.5

Hours: 12 hours LEC; 45 hours LAB

Prerequisite: IW 180 with a grade of "C" or better

Enrollment Limitation: Student must be a Registered Ironworkers Apprentice.

This course is a continuation of IW 180 and provides detailed information on knowledge, procedures, and practices employed by the ironworker in architectural and ornamental iron working. Topics include tools, anchors, fasteners, and various layout instruments. Additionally, constructing curtain wall systems, applying sealants, and glazing systems are covered. This course is not open to students who have taken IW 181.

IW 298 Work Experience in Ironworkers Apprenticeship

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered apprentice with the Ironworkers apprenticeship program.

General Education: Local GE L7B

This course provides students the opportunity to work in the ironworkers apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the ironworkers Joint Apprenticeship and Training Committee (JATC). Students complete work experience hours at approved training sites. During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

IW 299 Experimental Offering in Ironworkers Apprenticeship

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Operating Engineers Apprenticeship (OE3) Courses

OE3 101 Introduction to Operators

Units: 8

Hours: 120 hours LEC; 72 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course introduces the skills and knowledge required to be a Construction Equipment Operator in the Operating Engineers Apprenticeship. Topics include an introduction to grade checking and the operation of a compactor, bulldozer, scraper, and backhoe.

OE3 102 Introduction to Heavy Duty Repair

Units: 8

Hours: 120 hours LEC; 72 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course is an introduction to the Heavy Equipment Operator in the Operating Engineers Apprenticeship. Topics include an introduction to electrical, pneumatic, hydraulic, and power train systems for heavy duty construction equipment. Additional topics include engines and safety.

OE3 103 Introduction to Crane Operators

Units: 12

Hours: 164 hours LEC; 156 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course introduces the skills and knowledge to be a Crane Operator in the Operating Engineers Apprenticeship. Topics include rigging, crane operations, lubrication, booms, loading, and safety regulations.

OE3 104 Introduction to Grade Setter

Units: 8

Hours: 120 hours LEC; 72 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course introduces the skills and knowledge to be a Grade Setter in the Operating Engineers Apprenticeship. Topics include an introduction to grade checking and the operations of compactors, bulldozers, scrapers, and loaders.

OE3 110 Introduction to Dredge Operation

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course introduces dredge operations. Topics include principles of dredging, water safety, knot tying, hand signals, and crane operations for dredging operations.

OE3 112 Seamanship I

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course covers seamanship as it is required for dredge operations. Topics include boat handling, use of nautical charts, piloting, signaling, buoy safety, and general water safety requirements for dredge operations.

OE3 115 Seamanship II

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: OE3 112 with a grade of "C" or better

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course is a continuation of OE3 112. Advanced topics include marine rescue, lifeboat seamanship, dredging material handling, shipboard fire suppression, and shore operations.

OE3 120 Plant Operations

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course covers the operation, maintenance, and troubleshooting of batch, crushing, screening, and washing plants in the construction industry. Topics include maintenance procedures, erecting and dismantling, and types of materials.

OE3 121 Welding and Cutting

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice

This course covers welding and oxy-acetylene used in batch, crushing, screening, and washing application plants. Topics include shop safety practices, proper selection of welding equipment, use of oxy-acetylene equipment, and proper welding techniques.

OE3 130 Backhoe & Excavator Operations

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice

This course covers the safe operation of a backhoe and/or excavator. Topics include trenching safety, hazards of underground construction, sloping, grade checking, and excavation for a manhole.

OE3 131 Grade Checking

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice

This course covers grade checking for the construction equipment operator. Topics include grade setting terminology, stake marking, laser levelers, street section grading, Global Positioning System (GPS) devices, plan reading, metric conversions, and locating underground infrastructure.

OE3 132 Scrapers

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice

This course covers the operation of a scraper. Topics include equipment safety, grading, dumping and spreading, grade checking, and operation with a scraper.

OE3 133 Loaders

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice

This course covers the safe operation of a loader. Topics include equipment safety, loading, transporting, stockpiling, and hand signals.

OE3 134 Motor Grader

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice

This course covers the operation of a motor grader. Topics include equipment safety, grading, mixing, compaction density, grade checking, and v-ditching.

OE3 135 Dozers

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice

This course covers the operation of dozers. Topics include equipment safety, cutting, spreading, and grade checking.

OE3 136 Directional Drilling

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course covers the operation, maintenance, and troubleshooting of directional boring machines. Topics include safety, tracker control, maintenance, and drilling fluids.

OE3 140 Boom Pumps

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course introduces boom pumps, such as those for overhead concrete pumping. Topics include safety, maintenance, components, controls, hand signals, and blockages.

OE3 141 Line Pumps

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course introduces line pumps, such as those for ground concrete pumping. Topics include safety, maintenance, components, controls, hand signals, and blockages.

OE3 142 Advanced Boom Pumps

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: OE3 140 with a grade of "C" or better

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course covers advanced boom pumps such as those used for overhead concrete pumping. Topics include advanced safety, preventative maintenance, components, controls, hand signals, blockages, and troubleshooting procedures.

OE3 143 Advanced Line Pumps

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: OE3 141 with a grade of "C" or better

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course covers advanced line pumps, such as those used for ground concrete pumping. Topics include advanced safety, preventative maintenance, components, controls, hand signals, blockages, and troubleshooting procedures.

OE3 150 Introduction to Mobile Drilling

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course introduces how to operate, maintain, and troubleshoot mobile drilling machines. Topics include safety, horizontal and vertical drilling, lubrication, and maintenance.

OE3 151 Horizontal & Vertical Drilling Machine Operator I

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: OE3 150 with a grade of "C" or better

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course covers the operation, maintenance, and troubleshooting of mobile drilling machines. Topics include safety, horizontal and vertical drilling, lubrication, and maintenance.

OE3 152 Horizontal & Vertical Drilling Machine Operator II

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: OE3 151 with a grade of "C" or better

Enrollment Limitation: Registered Operating Engineer Apprentice.

This operator level II course covers the operation, maintenance, and troubleshooting of mobile drilling machines. Topics include safety, horizontal and vertical drilling, lubrication, and maintenance.

OE3 153 Horizontal & Vertical Drilling Machine Operator III

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: OE3 152 with a grade of "C" or better

Enrollment Limitation: Registered Operating Engineer Apprentice.

This operator level III course covers the operation, maintenance, and troubleshooting of mobile drilling machines. Topics include safety, horizontal and vertical drilling, lubrication, maintenance, regulatory requirements, and difficult terrains.

OE3 160 Grade Setting I

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice

This course introduces the skills and knowledge required to be a grade setter in the Operating Engineer Apprenticeship. Topics include surveying principles, plan reading, global positioning systems (GPS), cut/fill slope staking, street section grading, and pad layout.

OE3 161 Grade Setting II

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: OE3 160 with a grade of "C" or better

Enrollment Limitation: Registered Operating Engineer Apprentice

This course covers the advanced skills and knowledge required to be a grade setter in the Operating Engineer Apprenticeship. Topics include sloping pad layout, sidewalk, curb, and gutter grading, and catch point slope staking using global positioning systems (GPS) for Trimble systems.

OE3 182 Heavy Duty Equipment Hydraulics

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course covers hydraulic systems of heavy duty equipment. Topics include pumps, actuators, hoses, schematic drawings, and similar systems.

OE3 183 Engines

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course covers the principles, operation, and diagnosis of heavy duty engines commonly used in construction equipment, such as earth moving equipment. Topics include fuel systems, specialty tool usage, and troubleshooting techniques.

OE3 184 Power Trains

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This covers the principles, operation, and diagnosis of heavy duty power trains commonly used in construction equipment such as earth moving equipment. Topics include shop safety, transmissions, drive-lines, differentials, and troubleshooting techniques.

OE3 185 Equipment Welding

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice

This course covers welding and oxyacetylene processes used in heavy construction equipment, such as bulldozers, backhoes, or earth moving equipment. Topics include shop safety practices, proper selection of welding equipment, use of oxyacetylene equipment, and proper welding techniques.

OE3 186 Lubrication Preventative Maintenance

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course covers lubrication preventative maintenance for the construction lube technician. Topics include lubricants, air filters, engine oils, and manufacturer services on heavy construction equipment.

OE3 187 Oils, Lubricants, and Coolants

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course covers oils, lubricants, and coolants for the construction lube technician. Topics include lubricants, engine oils, gear oils, transmission oils, grease, and coolants.

OE3 188 Servicing and Inspections

Units: 3

Hours: 41 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: Registered Operating Engineer Apprentice.

This course covers servicing and inspection skills for the construction lube technician. Topics include minor repairs, performing services, and inspecting for prevention.

OE3 298 Work Experience in Operating Engineers Apprenticeship

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered apprentice with the Operating Engineers Apprenticeship program.

General Education: Local GE L7B

This course provides students the opportunity to work in the operating engineers apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the operating engineers Joint Apprenticeship and Training Committee (JATC). Students complete work experience hours at approved training sites. During the semester, students are required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

Painting and Decorating (PAINT) Courses

PAINT 299 Experimental Offering in Painting and Decorating

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

PAINT 499 Experimental Offering in Painting and Decorating

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Plumbers and Pipe-fitters Apprenticeship (PLUMB) Courses

PLUMB 100 Introduction to the Trade

Units: 4.5

Hours: 69 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to the history of the trade and the role and responsibilities of an apprentice. It also covers tool and equipment safety and rigging.

PLUMB 101 Introduction to the Refrigeration Fitter Apprenticeship

Units: 4.5

Hours: 69 hours LEC; 39 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice specializing in Refrigeration Fitter to the history of the trade and the role and responsibilities of an apprentice. It also covers tool and equipment safety and applied mathematics.

PLUMB 110 Plumbing Science, Fixtures, and Rigging

Units: 4

Hours: 62 hours LEC; 46 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to plumbing science and mechanics. It also covers various plumbing fixtures and rigging operations.

PLUMB 111 Plumbing Fixtures

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course presents modern plumbing fixtures and appliances. Topics include proper selection, installation, and maintenance. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 120 Gas Welding and Brazing

Units: 2

Hours: 6 hours LEC; 102 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to welding techniques and principles of Oxygen/Acetylene burning, brazing, soldering, and welding.

PLUMB 121 Basic Arc Welding and Drawings

Units: 4

Hours: 60 hours LEC; 48 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to welding techniques and principles of arc and oxy-fuel welding and basic working drawings.

PLUMB 122 Advanced Arc Welding

Units: 2

Hours: 8 hours LEC; 100 hours LAB

Prerequisite: PLUMB 121 with a grade of "C" or better

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to advanced welding techniques and principles of arc and oxy-fuel welding.

PLUMB 130 Gas and Water Supply

Units: 4.5

Hours: 72 hours LEC; 36 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to the supply and treatment of potable water and the design and construction of potable water conveyance systems. It also covers the use of natural gas and liquid propane systems as applied to the plumbing industry.

PLUMB 131 Water Supply Systems

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course presents an introduction to the principles and methods of water distribution and treatment regarding water supply systems. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 134 Plumbing System Service and Repair

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course presents an introduction to the planning, troubleshooting, and repair of plumbing systems. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 140 Advanced Drawings and Drainage

Units: 4

Hours: 63 hours LEC; 45 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to advanced building plans and specifications. It also covers drainage systems in residential and commercial settings.

PLUMB 141 Sewage Disposal

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course introduces the principles and methods of sewage disposal for residential and commercial buildings. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 150 Steamfitting and Pipefitting

Units: 6

Hours: 108 hours LEC

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to working knowledge of design, layout, components, safety hazards, and accepted engineering practices with steam heating, and hydronic heating and cooling systems.

PLUMB 160 Uniform Plumbing Code and Medical Gas

Units: 5.5

Hours: 98 hours LEC; 10 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to plumbing system code requirements. It also covers installation, testing, and inspection procedures for medical gas and vacuum systems.

PLUMB 161 HVACR Start, Test, and Balance

Units: 4

Hours: 65 hours LEC; 43 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to the knowledge of start, test, and balance practices for Heating, Ventilation, Air Conditioning, and Refrigeration (HVACR) systems and equipment.

PLUMB 162 Refrigeration and Customer Service

Units: 6

Hours: 108 hours LEC

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to basic refrigeration, EPA certification, safety, and customer service.

PLUMB 163 Plumbing Code I

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course covers articles 100-900 of the Uniform Plumbing Code. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 164 Plumbing Code II

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

Advisory: PLUMB 163 with a grade of "C" or better

This course covers articles 901-1622 of the Uniform Plumbing Code. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 166 Certification Preparation

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

Advisory: PLUMB 164, 212, and 241 with grades of "C" or better

This course presents the information necessary to sit for the state plumbing certification examination. The course will expand upon information presented in other plumbing courses within the program to emphasize knowledge required for passing this exam. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 167 Computer for the Plumbing Field

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course covers computer software used in the plumbing field. Software covered includes AutoCad, Revit, Trimble, BIM 360, Procore, ACC, and Microsoft Word and Microsoft Excel. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 168 Medical Gas and Vacuum Systems

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course covers the requirements and standards of medical gas and vacuum system installation and maintenance. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 169 Green Awareness

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

The course provides an overview of green concepts as applied to mechanical systems and high-efficiency plumbing technologies that support water conservation. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 170 Job Supervision and Foreman Training

Units: 4

Hours: 58 hours LEC; 50 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to the knowledge and skills necessary to properly supervise, schedule, and document a construction project.

PLUMB 171 Construction Management in Plumbing

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course offers an introduction to construction management in plumbing. Topics include administrative procedures, plans and specifications, scheduling, permits, variances, and forms of communication. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 172 Construction Management in Plumbing II

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

Advisory: PLUMB 171

This course expands upon the information from PLUMB 171. Topics include administrative procedures, plans and specifications, scheduling, permits, variances, and forms of communication. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 174 UA Forman Training

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course covers the role and responsibilities of a foreman. Topics include safety, planning, scheduling, managing productivity, and construction technology. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 180 Supermarket Refrigeration

Units: 4

Hours: 60 hours LEC; 48 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to the fundamentals of oil return and oil separators, electric and hot gas exhaust, multi-stage compressor systems, and pump down systems.

PLUMB 181 Refrigeration Controls and Electrical Troubleshooting

Units: 3.5

Hours: 42 hours LEC; 66 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to refrigeration controls. It also covers electrical troubleshooting in refrigeration systems.

PLUMB 182 Refrigeration and Hydronics Piping

Units: 4.5

Hours: 70 hours LEC; 38 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to the theory and application of psychrometrics, refrigerant piping design, advanced refrigeration, hydronic piping systems, and jobsite hazards. This course also covers customer service and relations as well as preparation for the UA STAR certification exam.

PLUMB 190 Air Conditioning Pneumatic and Process Controls

Units: 4.5

Hours: 73 hours LEC; 35 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to welding techniques and principles of air conditioning pneumatic and process controls.

PLUMB 191 Electrical and Direct Digital Controls

Units: 4

Hours: 58 hours LEC; 50 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice

This course introduces the Plumber and Pipefitter Apprentice to electrical control and direct digital control (DDC) systems as they apply to comfort air and building control management.

PLUMB 192 Pneumatic Controls and Computer Literacy

Units: 4

Hours: 65 hours LEC; 43 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Plumber and Pipefitter Apprentice.

This course introduces the Plumber and Pipefitter Apprentice to working knowledge of pneumatic control systems. It also covers computer literacy as related to the Heating Ventilation and Air Conditioning (HVAC) industry.

PLUMB 200 Plumbing Tool Workshop I

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course covers the practical and theoretical aspects of plumbing tool processes. Topics include the proper use of basic trade tools for processes such as soldering, brazing, threading pipes, and installing drainage. Safe work practices will be emphasized. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 201 Plumbing Tool Workshop II

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

Advisory: PLUMB 200 with a grade of "C" or better

This course covers the practical and theoretical aspects of plumbing tool processes. Topics will include the proper use of advanced trade tools for processes such as T-drilling, hot taps, and freeze pipe installation. Safe work practices will be emphasized. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 202 Plumbing Tool Workshop III

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

Advisory: PLUMB 201 with a grade of "C" or better

This course provides practical and theoretical aspects of advanced plumbing tools and material processes. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 210 Beginning Drawing and Plan Reading for the Piping Trades

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course covers the interpretation of drawings and sketches associated with piping installation. An introduction to basic drawing and drafting methods, technical symbols, and notation are covered in orthographic and isometric drawing views. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 211 Advanced Drawing in the Piping Trades

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

Advisory: PLUMB 210 with a grade of "C" or better

In this course students interpret, coordinate, and make drawings and sketches associated with piping installation. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 212 Blueprint Reading for Plumbing

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

Advisory: PLUMB 211 with a grade of "C" or better

This course introduces the interpretation of blueprints, specifications, and other construction documents for the plumbing industry. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 240 Trade Mathematics I

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

This course covers the approaches to mathematical problem solving used in pipe fitting and plumbing. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 241 Trade Mathematics II

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing Apprentice.

Advisory: PLUMB 240 with a grade of "C" or better

This course covers the approaches to advanced trade mathematics. It covers mathematical problem solving used in plumbing and pipefitting, including formulas for angles, volumes, and areas of pipes and vessels. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

PLUMB 298 Work Experience in Plumbers and Pipefitters Apprenticeship

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered apprentice in the Plumbers and Pipefitters apprenticeship program.

General Education: Local GE L7B

This course provides students the opportunity to work in the plumbers and pipefitters apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the Plumbers and Pipefitters Joint Apprenticeship and Training Committee (JATC). Students complete work experience hours at approved training sites. During the semester, students are required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

Pre-Apprenticeship (PREAP) Courses

PREAP 111 Infrastructure Pre-Apprenticeship

Units: 7

Hours: 77 hours LEC; 147 hours LAB

Prerequisite: None.

Corequisite: Concurrent enrollment in FITNS 102.

Enrollment Limitation: Students must have a high school diploma or GED.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course provides an introduction to infrastructure apprenticeships. It covers tools, equipment, materials, and techniques used for building roads, bridges, levees, and rail. Topics also include job safety, physical requirements for different job sites, employability skills for apprenticeship, and California apprenticeship laws. Field trips may be required.

PREAP 112 Infrastructure Pre-Apprenticeship I

Units: 3

Hours: 27 hours LEC; 81 hours LAB

Prerequisite: None.

This course provides an introduction to infrastructure construction trades apprenticeships. It covers tools, and equipment used for building and maintaining the facilities and systems that create America's infrastructure. Topics also include OSHA/jobsite safety, the safe use of hand and power

tools, applied construction math, and employability skills for apprenticeship. This course is not open to students who have completed PREAP 111. Field trips may be required.

PREAP 113 Infrastructure Pre-Apprenticeship II

Units: 3

Hours: 27 hours LEC; 81 hours LAB

Prerequisite: None.

This course provides an overview of the commercial and industrial construction trades with an emphasis on America's infrastructure. It covers materials and techniques that are used in the infrastructure trades to construct and maintain buildings and related facilities. Topics also include an introduction to construction drawings, material handling simulators, multi-craft skills, and California apprenticeship regulations. This course is not open to students who have completed PREAP 111. Field trips may be required.

PREAP 122 Pre-Apprenticeship for Utility Workers

Units: 8

Hours: 96 hours LEC; 144 hours LAB

Prerequisite: None.

This course provides preparation for entry-level employment skills for the utility industry. Topics include safety, basic electrical fundamentals, gas principles, excavation, working at heights, industrial ergonomics, radio procedures, and knot tying. Field trips may be required.

PREAP 130 Carpenter Pre-Apprenticeship I

Units: 3

Hours: 27 hours LEC; 81 hours LAB

Prerequisite: None.

This course provides an introduction to the carpentry apprenticeship. It is designed to teach the minimum skills for entry into the carpentry apprenticeship. It includes OSHA safety, carpentry math and the roles and responsibilities of an apprentice.

PREAP 131 Carpenter Pre-Apprenticeship II

Units: 3

Hours: 27 hours LEC; 81 hours LAB

Prerequisite: None.

This course is a continuation of PREAP 131 and provides additional introductory training for the carpentry apprenticeship. It is designed to continue teaching the minimum skills for entry into the carpentry apprenticeship. It includes OSHA safety, carpentry math and the roles and responsibilities of an apprentice.

PREAP 141 Green Technology Pre-Apprenticeship

Units: 7

Hours: 77 hours LEC; 147 hours LAB

Prerequisite: None.

Corequisite: Concurrent enrollment in FITNS 101.

Enrollment Limitation: Students must have a high school diploma or GED.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course provides an introduction to Green Technology Pre-Apprenticeship. It covers tools, equipment, materials, and techniques used in the green fields such as electrical, plumbing, heating ventilation and air conditioning (HVAC), and carpentry. Topics include commercial and industrial building energy efficiency, building codes, sustainability, renewable energy, green building, distributed generation systems, utilities, and smart grids. Additional topics include construction drawings, safety training, construction math, and basic communication and employability skills. Field trips may be required.

PREAP 142 Green Technology Pre-Apprenticeship I

Units: 3

Hours: 27 hours LEC; 81 hours LAB

Prerequisite: None.

This course provides an introduction to Green Technology Pre-Apprenticeship. It covers tools, equipment, materials, and techniques used in the green fields such as electrical, plumbing, heating ventilation and air conditioning (HVAC), and carpentry. Topics include reducing consumer waste, water and other natural resources, recycling, renewable energy, and green building procedures and materials. Additional topics include construction drawings, safety training, construction math, and basic communication
and employability skills. This course is not open to students who have completed PREAP 141. Field trips may be required.

PREAP 143 Green Technology Pre-apprenticeship II

Units: 3

Hours: 27 hours LEC; 81 hours LAB

Prerequisite: None.

This course provides an introduction to Green Technology Pre-Apprenticeship. It covers tools, equipment, materials, and techniques used in the green fields such as electrical, plumbing, heating ventilation and air conditioning (HVAC), and carpentry. Topics include commercial and industrial building energy efficiency, building codes, sustainability, distributed generation systems, utilities, and smart grids. Additional topics
include safety training, and construction math. This course is not open to students who have completed PREAP 141. Field trips may be required.

PREAP 299 Experimental Offering in Pre-Apprenticeship

Units: 0.5 - 8

Prerequisite: None.

This is the experimental courses description.

Roofing and Shingle (ROOF) Courses

ROOF 298 Work Experience in Roofing and Shingle Apprenticeship

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered apprentice with the Carpenters Training Committee for Northern California.

General Education: Local GE L7B

This course provides students the opportunity to work in the Carpenters Training Committee for Northern California Apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the Carpenters Apprenticeship program. Students complete work experience hours at approved training sites.
During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

ROOF 299 Experimental Offering in Roofing and Shingle

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

ROOF 499 Experimental Offering in Roofing and Shingle

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Scaffold (SCFLD) Courses

SCFLD 101 Introduction to Scaffolds

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to the industry safety procedures when assembling welded frame and rolling scaffolds. This course is the equivalent of course number 303 for the Carpenter's Training Center of Northern California (CTCNC).

SCFLD 102 Hazard Awareness and Confined Space

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to the appropriate safety procedures when using scaffolds and working in a confined space. It also covers the use and maintenance of hand tools. This course is the equivalent of course number 302 for the Carpenter's Training Center of Northern California (CTCNC).

SCFLD 107 Rigging Awareness for Scaffold

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Carpenter Apprentice

This course familiarizes scaffold apprentices with the equipment and the procedures to safely rig and hoist various loads on the job-site. Topics include tying knots, splicing rope, calculating loads, hand signals for cranes, and inspecting rigging hardware. This course is the equivalent of course number 312 for the Carpenter's Training Center of Northern California (CTCNC).

SCFLD 110 Welded Frame and Mobile Tower Scaffold

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to the industry safety procedures when assembling welded frame and rolling scaffolds. This course is the equivalent of course number 305 for the Carpenter's Training Center of Northern California (CTCNC).

SCFLD 111 System Scaffold I - Cuplock

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to industry safety procedures when erecting Cuplock system scaffold. This course is the equivalent of course number 306 for the Carpenter's Training Center of Northern California (CTCNC).

SCFLD 112 System Scaffold II - Safway

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to industry safety procedures when erecting system scaffold, rolling scaffold, and supported scaffold. This course is the equivalent of course number 307 for the Carpenter's Training Center of Northern California (CTCNC).

SCFLD 113 Systems Scaffold III - Ring Lock

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to the safety procedures and industry rules and regulations for suspended scaffolds. This course is the equivalent of course number 308 for the Carpenter's Training Center of Northern California (CTCNC).

SCFLD 114 Ladder Access and Stair Tower

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to the safety procedures and industry regulations for erecting tube and clamp scaffold systems. This course is the equivalent of course number 309 for the Carpenter's Training Center of Northern California (CTCNC).

SCFLD 115 Suspended and Cantilevered Scaffold

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course covers the use of leveling devices. It includes reading and interpreting an engineer's rod, horizontal and vertical setting circles, and vernier scaling. Additional topics include construction layout of horizontal and vertical angles. Leadership in Energy and Environmental Design (LEED)

practices for erosion control are also covered. This course is the equivalent of course number 310 for the Carpenter's Training Center of Northern California (CTCNC).

SCFLD 116 Scaffold Containment

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to scaffold containment systems and industry-related safety procedures associated with those systems. This course is the equivalent of course number 311 for the Carpenter's Training Center of Northern California (CTCNC).

SCFLD 120 Scaffold Print Reading, Union Benefits, and First Aid

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course introduces the Scaffold Erector Apprentice to scaffold blueprint reading. It also covers benefits offered by union membership and first aid/CPR. This course is the equivalent of course number 304 for the Carpenter's Training Center of Northern California (CTCNC).

SCFLD 161 Tiebacks

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course familiarizes apprentices with the equipment and the procedures to safely stabilize and brace scaffold on the job-site. This course is the equivalent of course number 313 for the Carpenter's Training Center of Northern California (CTCNC).

SCFLD 163 Reshoring

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course familiarizes apprentices with the equipment and the procedures to safely reshore a scaffold on the job-site. This course is the equivalent of course number 314 for the Carpenter's Training Center of Northern California (CTCNC).

SCFLD 165 Slopes and Vessels

Units: 1.5

Hours: 22.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice.

This course familiarizes apprentices with the equipment and the procedures to safely erect scaffolding on slopes and in vessels. This course is the equivalent of course number 315 for the Carpenter's Training Center of Northern California (CTCNC).

SCFLD 298 Work Experience in Scaffold Erector Carpentry Apprenticeship

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Scaffold Erector Apprentice in the Carpenters Apprenticeship program.

General Education: Local GE L7B

This course provides students the opportunity to work in the Scaffold Erector Apprenticeship for the purpose of developing specific skills to meet the goals and objectives of the Carpenters Apprenticeship. Students complete work experience hours at approved training sites.
During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

SCFLD 299 Experimental Offering in Scaffold

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

SCFLD 499 Experimental Offering in Scaffold

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Sheet Metal (SHME) Courses

SHME 100 Sheet Metal Apprenticeship I

Units: 3.5

Hours: 34.5 hours LEC; 85.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course is an introduction to the Sheet Metal Apprenticeship program. Topics include job-site safety practices, basic drafting, basic job-site drawings, and industry terminology.

SHME 101 Sheet Metal Apprenticeship II

Units: 3.5

Hours: 34.5 hours LEC; 85.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course is an introduction to sheet metal field installation with an emphasis in basic sheet metal layout, parallel and radial line development, and an introduction to triangulation and use of true length lines. Topics include fabrication, soft soldering, and drafting of sheet metal prior to fabrication.

SHME 110 Sheet Metal Apprenticeship III

Units: 3.5

Hours: 34.5 hours LEC; 85.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course introduces basic layout skills for advanced pattern development. Topics include the basic bidding process, trigonometry for the sheet metal industry, fabrication of round fittings, and drafting of pictorial drawings.

SHME 111 Sheet Metal Apprenticeship IV

Units: 3.5

Hours: 34.5 hours LEC; 85.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers advanced pattern development, architectural sheet metal principles, flashing, and gutters. Topics include hoisting and rigging, as well as installation of fire and smoke dampers.

SHME 120 Sheet Metal Apprenticeship V

Units: 3.5

Hours: 34.5 hours LEC; 85.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course is an introduction to heating, ventilating, and air conditioning (HVAC) systems. It includes an overview of the properties of air, heating, and cooling. In addition, this course covers fans and duct systems, and measuring airflow in ductwork.

SHME 121 Sheet Metal Apprenticeship VI

Units: 3.5

Hours: 34.5 hours LEC; 85.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course is an introduction to Occupational Safety and Health Administration (OSHA) regulations and a review of safe rigging practices. Topics include job specifications, blueprint reading, field measuring, and installation of package units and built-up systems.

SHME 130 Sheet Metal Apprenticeship VII

Units: 3.5

Hours: 34.5 hours LEC; 85.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers the design and construction of rooftop steel, advanced plans and specifications, and duct leakage detection. It includes basic electricity for sheet metal workers.

SHME 131 Sheet Metal Apprenticeship VIII

Units: 3.5

Hours: 34.5 hours LEC; 85.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers testing, adjusting, and balancing of heating, ventilating, and air conditioning (HVAC) systems. Topics include advanced drafting elevation views of shaft duct systems and complete takeoff of an HVAC system with cost, quantity, and weight.

SHME 140 Sheet Metal Apprenticeship IX

Units: 3.5

Hours: 34.5 hours LEC; 85.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers the installation of architectural metal, food service equipment, and commercial exhaust systems. It includes control wiring of these systems.

SHME 141 Sheet Metal Apprenticeship X

Units: 3.5

Hours: 34.5 hours LEC; 85.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers shop foreman duties, procedures, and leadership training. In addition, the testing, adjusting, and balancing of blow pipe systems are addressed.

SHME 150 Sheet Metal Welding I

Units: 3.5

Hours: 34.5 hours LEC; 85.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers oxyacetylene cutting, shielded metal arc (SMAW) and gas tungsten arc (GTAW) welding processes typically used in the sheet metal industry. Topics include welding safety procedures and maintenance techniques.

SHME 151 Sheet Metal Welding II

Units: 3.5

Hours: 34.5 hours LEC; 85.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers advanced shielded metal arc (SMAW) and gas tungsten arc (GTAW) welding processes typically used in the sheet metal industry. Topics include welding safety procedures and maintenance techniques.

SHME 298 Work Experience in Sheet Metal Apprenticeship

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered apprentice with the sheet metal apprenticeship program.

General Education: Local GE L7B

This course provides students the opportunity to work in the sheet metal apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the sheet metal Joint Apprenticeship and Training Committee (JATC). Students complete work experience hours at approved training sites. During the semester, students are required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Students may take up to 16 units total across all Work Experience course offerings. Only one Work Experience course may be taken per semester.

SHME 299 Experimental Offering in Sheet Metal Apprenticeship

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Sheet Metal Technology (SMTEC) Courses

SMTEC 100 Sheet Metal Service Technician Apprenticeship I

Units: 2.5

Hours: 27 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course is an introduction to the Sheet Metal Service Technician Apprenticeship. Topics include environmental systems, basic refrigeration theory, balancing refrigeration systems, and field safety. It includes the testing, adjusting, and balancing of refrigeration systems.

SMTEC 101 Sheet Metal Service Technician Apprenticeship II

Units: 2.5

Hours: 27 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers diagnosing refrigeration systems, charging and recovery of small hermetic systems, and servicing small heating, ventilating, and air conditioning (HVAC) package units.

SMTEC 110 Sheet Metal Service Technician Apprenticeship III

Units: 2.5

Hours: 27 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers basic electrical fundamentals and control circuits in package air conditioning units. Topics include basic motor principles, construction, and motor control circuits.

SMTEC 111 Sheet Metal Service Technician Apprenticeship IV

Units: 2.5

Hours: 27 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers hermetically sealed electric motors, motor control circuits and their protection. Topics include electrical schematics and diagrams relating to air conditioning equipment.

SMTEC 120 Sheet Metal Service Technician Apprenticeship V

Units: 2.5

Hours: 27 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers duct systems including design, selection, layout, and outlets. Topics include the properties of air, airflow, and heat in heating, ventilating, and air conditioning (HVAC) system design. Additionally, types of heating systems are covered.

SMTEC 121 Sheet Metal Service Technician Apprenticeship VI

Units: 2.5

Hours: 27 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers chilled water systems, air cooled condensers, water cooled condensers, refrigerant lines and flow control devices. Topics include heat load calculations for cooling systems and heat pump operation, components, and controls.

SMTEC 130 Sheet Metal Service Technician Apprenticeship VII

Units: 2.5

Hours: 27 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers commercial systems such as walk-in freezers, ice makers, multi-zone systems and an introduction to computerized building management. Topics include constant volume air conditioning systems, and an introduction to pneumatic and electronic environmental system controls.

SMTEC 131 Sheet Metal Service Technician Apprenticeship VIII

Units: 2.5

Hours: 27 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers variable air volume systems used in airflow regulation and their electronic control components. Topics include an introduction to the principles and components of direct digital controls (DDC) and energy management systems (EMS).

SMTEC 140 Sheet Metal Service Technician Apprenticeship IX

Units: 2.5

Hours: 27 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers the installation and application of direct digital control (DDC) systems in energy management systems (EMS). Topics include an introduction to blueprint reading for service technicians, and the testing and balancing of heating, ventilating, and air conditioning (HVAC) systems integrated with EMS.

SMTEC 141 Sheet Metal Service Technician Apprenticeship X

Units: 2.5

Hours: 27 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a Registered Sheet Metal Apprentice

This course covers commissioning of direct digital control (DDC) systems in energy management systems (EMS). Topics include demand controlled ventilation systems and advanced blueprint reading for service technicians.

SMTEC 299 Experimental Offering in Sheet Metal Technology Apprenticeship

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Steamfitter (STMFT) Courses

STMFT 100 OSHA and CPR

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course covers the regulations governed by OSHA 30 that provide and recognize safe work practices. The student will receive certification in Cardio-Pulmonary Resuscitation and First Aid. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 101 Use and Care of Tools

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course presents an introduction to the identification of tools encountered in the industrial environment and the proper use of trade-related tools. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 102 Steam Systems

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course gives related technical instruction to enhance the apprentice's on-the-job training in pipefitting and related technology. Students are introduced to the properties of saturated steam, traps, boilers, and heating systems. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 103 Related Science in the Piping Trades

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course covers the scientific and mechanical principles that are basic to the work of the piping industry. An overview of hydraulic and pneumatic systems as well as industrial plumbing and piping systems and materials is covered. It is sponsored by the United Association of Union Plumbers,

Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 104 Industrial Rigging

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course presents the study of rigging for the pipe trades and emphasizes principles of safety. Topics include safety, load limits, crane ratings, basic knots, and organizing a rigging plan. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 105 Instrumentation I

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course gives related technical instruction to enhance the apprentice's on-the-job training in pipefitting and related technology. Students are introduced to instrumentation, which includes basic descriptions of processes, loop diagrams, and documentation in the instrumentation field. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 106 Instrumentation II

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 105 with a grade of "C" or better

This course gives related technical instruction to enhance the apprentice's on-the-job training in pipefitting and related technology. Students are introduced to more advanced instrumentation including pneumatic controls, liquid level instruments, analyzers, and fiber optic signals. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 107 Instrumentation Theory

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course covers instrumentation theory. Topics include symbols, loop diagnosis, pneumatic control valves, and electrical theory. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 108 Rigging Awareness

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course presents the study of rigging for the pipe trades and emphasizes principles of safety. Topics include safety, load limits, crane ratings, basic knots, and organizing a rigging plan. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 109 Union Heritage

Units: 3

Hours: 55 hours LEC

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course presents the heritage and traditions of the United Association, which represents plumbers, steamfitters, and welders among other occupations. Topics include partnerships between the United Association and local union contractors, good work practices, and history of the pipe trades. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for

apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 110 Beginning Drawing and Plan Reading for the Piping Trades

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course covers the interpretation of drawings and sketches associated with piping installation. An introduction to basic drawing and drafting methods, technical symbols, and notation are covered in orthographic and isometric drawing views. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 111 Advanced Drawing in the Piping Trades

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 110 with a grade of "C" or better

In this course students interpret, coordinate, and make drawings and sketches associated with piping installation. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 113 Beginning AutoCAD for Steamfitters

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 111 with a grade of "C" or better

This introductory course presents the fundamentals of AutoCAD and its application to the creation of technical drawings. Hands-on training is utilized to provide a comprehensive overview of the software package and its applications to technical drafting. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 114 Advanced AutoCAD for Steamfitters

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 113 with a grade of "C" or better

This course is designed for students with previous knowledge and experience in using AutoCAD. Three-dimensional modeling, solid models, customization, and optimal application of AutoCAD are presented. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 116 Advanced Isometric Drawing

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course covers isometric drawing used in steamfitting. Topics include creating isometric diagrams from multiple perspectives and views. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 120 Trade Mathematics

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course covers the approaches to mathematical problem solving used in pipe fitting and metric conversion. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 122 Advanced Math for Welders and Steamfitters

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Steamfitter Apprentice.

Advisory: STMFT 120

This course covers the approaches to advanced trade mathematics. It covers mathematical problem solving used in steamfitting and pipefitting, including formulas for angles, volumes, and areas of pipes and vessels. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 125 Electricity for Steamfitting

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This is an introductory course in electrical concepts, components, systems, and equipment. Ohm's and Kirchhoff's laws are used to calculate and measure resistance, voltage, amperage, power in circuits, and safety in the field of steamfitting. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 130 Pipe Shop I

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course gives related technical instruction to enhance the apprentice's on-the-job training in pipefitting and related technology. The use of various pipe and fitting materials and their applications to piping projects as described in technical drawings are covered. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 131 Pipe Shop II

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 130 with a grade of "C" or better

This course gives related technical instruction to enhance the apprentice's on-the-job training in pipefitting and related technology. Students are introduced to basic isometric drawing and steam systems with copper connections to be made with soldering, brazing, and welding procedures. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 132 Tube Bending

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course presents the practical and theoretical aspects of tube bending. Topics include theory and concepts of tube bending, as well as components, tools, and installation. The laboratory emphasizes hands-on exercises in the mechanical skills of industrial tube bending including calculating angles, different types of tubing, valves, fittings, clamps, and installation. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 133 Pumps

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course presents the practical and theoretical aspects of pump systems. Topics include concepts and theory as well as common systems, components, devices, installation, and operation. The laboratory emphasizes hands-on exercises in the installation, operation, and maintenance of industrial pumps. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 134 Pipe Shop III

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 131 with a grade of "C" or better

This course presents concepts and develops the ability to figure out different offsets for the fabrication and installation of various piping system. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 135 United Association Bolting Hytorc

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course gives related technical instruction to enhance the apprentice's on-the-job training in pipefitting and related technology. Students are introduced to the knowledge and skills needed to safely and properly assemble bolted flange joints for jobsite applications. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 140 Welding Safety and Plate Welding

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course presents an introduction to welding safety and theory. Students are also introduced to plate arc welding. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 141 Oxygen Acetylene Cutting

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course presents an introduction to oxygen and acetylene cutting and safety. The processes on how to cut for various plate thicknesses and layouts is also discussed and practiced. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 142 Brazing and Soldering

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: The student must be a registered Steamfitter Apprentice.

This course covers methods and procedures for soldering and brazing piping materials. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 145 Pipe Welding

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course covers the practical and theoretical aspects of welding processes for the steamfitting apprentice. Safe procedures, components, regulator settings and practices for use of the cutting torch, and groove pipe welding are presented. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 146 Welding II

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 145

This course is a transition to techniques and methods from welding plate to welding pipe for the steamfitting apprentice. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 147 Welding III

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 146

This course is a continuation of pipe welding skills for the steamfitting apprentice. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 148 Welding IV

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 147

This course is a continuation of pipe welding skills for the steamfitting apprentice. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 150 Welding V

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 148

This course is a continuation of the techniques and methods for welding processes for the steamfitting apprentice. Students learn how to identify various welding rods, electrodes, and their applications. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 151 Welding VI

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 150 with a grade of "C" or better

This course is a continuation of the techniques and methods for welding processes for the steamfitting apprentice. Techniques studied include string beads on an open grooved pipe weld and proper torch positioning for advanced torch cutting. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 152 Welding VII

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 151 with a grade of "C" or better

This course is a continuation of the techniques and methods for welding processes for the steamfitting apprentice. Topics include proper handling of grinders, weld coupons, identification of hazards, and an introduction to square groove welding processes. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 153 Welding VIII

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 152 with a grade of "C" or better

This course is a continuation of the techniques and methods for welding processes for the steamfitting apprentice. Techniques studied include single vee groove welding in various positions. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 160 Welding IX

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 153 with a grade of "C" or better

This course is a continuation of the techniques and methods for welding processes for steamfitting apprentices. Topics include identification of trapped slag using an x-ray image as well as completing a root bead in a welding coupon in 6G position. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 161 Welding X

Units: 2

Hours: 22.5 hours LEC; 40.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 160 with a grade of "C" or better

This course is a continuation of the techniques and methods for welding processes for the steamfitting apprentice. Topics include identification of materials, butt-weld root and filler beads, and tools needed for stainless steel welding processes. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 164 Orbital Welding

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

Advisory: STMFT 161 with a grade of "C" or better

This course covers the practical and theoretical aspects of automatic orbital welding machine processes for the steamfitting apprentice. Topics include safety procedures, components, settings, calibration, and practice using the orbital welding machine. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 170 Construction Management in Steamfitting

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course offers an introduction to construction management in steamfitting. Topics include administrative procedures, plans and specifications, scheduling, permits, variances, and forms of communication. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 171 Hydrostatic Testing

Units: 2

Hours: 26.5 hours LEC; 28.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Steamfitter Apprentice.

This course presents the proper procedures to successfully complete a hydrostatic test on a piping system. Demonstrations of test packages, hydrostatic pump test procedures, pressure and safely securing the testing area are included. It is sponsored by the United Association of Union Plumbers, Fitters, Welders, and Service Technicians and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

STMFT 298 Work Experience in Steamfitting Apprenticeship

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be a registered Plumbing apprentice with the United Association of Union Plumbers, Fitters, Welders, and Service Technicians.

General Education: Local GE L7B

This course provides students the opportunity to work in the Steamfitting apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the United Association of Union Plumbers, Fitters, Welders, and Service Technicians. Students complete work experience hours at approved training sites.
During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

STMFT 299 Experimental Offering in Steamfitter

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

STMFT 499 Experimental Offering in Steamfitter

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Art

Overview

This degree provides a foundation in art principles and practices and is designed for those interested in transferring to a four-year college or university, and for someone interested in furthering his/her visual arts skills. Course work includes study in art history and a wide range of 2-D and 3-D studio practice courses. 2-D refers to drawing, painting, design, and photography; 3-D refers to ceramics, jewelry, and sculpture.

Degrees and Certificates Offered

A.A.-T. in Art History

A.A.-T. in Studio Art

A.A. in Art

Figure Study Certificate

Freelance Photography Certificate

Gallery Management Certificate

Sculpture Certificate

Dean: Corinne Arrieta Katzorke

Department Chair: Patricia Wood

Phone: (916) 484-8570

Email: AskHB-Arts@arc.losrios.edu

Associate Degrees for Transfer

A.A.-T. in Art History

The Associate in Arts in Art History for Transfer (AA-T) provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Art History at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, §66746):
• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

All ADTs also require that students must earn a “C” or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
ARTH C1100	Survey of Art from Prehistory to the Medieval Era	3
ARTH 308	Renaissance Tradition in Art	3
ARTH 310	Modern Art	3
ART 300	Drawing and Composition I	3
A minimum of 3 units from the following:		3
ARTH 322	Art History of the Non-Western World (3)	
ARTH 333	Introduction to Islamic Art (3)	
ARTH 334	International Contemporary Art (3)	
List A, Further Preparation in Art History:		
A minimum of 3 units from the following:		3[1]
ARTH 318	History of American Art (3)	
ARTH 322	Art History of the Non-Western World (3)	
ARTH 333	Introduction to Islamic Art (3)	
ARTH 334	International Contemporary Art (3)	
ARTH 335	Survey of Photography (3)	
List B, Studio Arts:		
A minimum of 3 units from the following:		3
ART 302	Drawing and Composition II (3)	
ART 304	Figure Drawing I (3)	
ART 305	Figure Drawing II (3)	
ART 306	Facial Expression and Anatomy (3)	
or ARTNM 320	Facial Expression and Anatomy (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 329	Painting III (3)	
ART 330	Mural Painting (3)	
ART 336	Watercolor Painting (3)	
ART 337	Intermediate Watercolor Painting (3)	
ART 361	Printmaking: Survey (3)	
ART 370	Three Dimensional Design (3)	
ART 372	Sculpture (3)	
ART 373	Intermediate Sculpture (3)	
ART 375	Figure Sculpture (3)	
ART 390	Ceramics (3)	
ART 391	Intermediate Ceramics (3)	
ARTNM 303	Graphic Design: Typography (3)	
ARTNM 322	Beginning Digital Art (3)	
ARTNM 324	Digital Design (3)	
ARTNM 370	Introduction to Illustration (3)	
ARTNM 405	Digital 2D Animation (3)	
ARTPH 300	Basic Film and Darkroom Photography (3)	
ARTPH 305	Digital Photography (3)	
ARTPH 360	Studio Lighting (3)	
Total Units:		**21**

[1]Courses that appear in multiple lists can be used to satisfy only one list's requirements.

The Associate in Arts in Art History 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess and evaluate the contributions of artists throughout history.
- identify and evaluate works of art or architecture according to their appropriate style and time frame.
- analyze and critique art and architecture within the context of their functions and meanings.
- research and assess theoretical information concerning the meanings and purposes of art and architecture.
- explain the history of cultures and civilizations and how art and architecture is a reflection of that history.

Career Information

Art historians with undergraduate degrees are placed as registrars, preparators, and curatorial staff in art museums and galleries; they can also be employed as art critics in mass media publications, such as newspapers and magazines. An advanced degree allows an art historian a wider range of possible career applications, including museums directorships, curators, instructors, preservationists, researchers, and auction house personnel.

A.A.-T. in Studio Art

The Associate in Arts in Studio Art for Transfer (AA-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Studio Art at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (Pursuant to SB1440, §66746):

• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

ADTs also require that students must earn a “C” or better in all courses required for the major or area of emphasis. A ”P” (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
ART 300	Drawing and Composition I	3
ART 320	Design: Fundamentals (3)	3
ART 370	Three Dimensional Design	3
ARTH 308	Renaissance Tradition in Art	3
ARTH 310	Modern Art	3
List A:		
A minimum of 3 units from the following:		3
ARTH C1100	Survey of Art from Prehistory to the Medieval Era (3)	
ARTH 322	Art History of the Non-Western World (3)	
ARTH 333	Introduction to Islamic Art (3)	
ARTH 334	International Contemporary Art (3)	
List B:		
A minimum of 9 units from the following:		9
Select three courses, each from a different category listed below:		
Drawing		
ART 302	Drawing and Composition II (3)	
ART 304	Figure Drawing I (3)	
Color Theory		
ART 323	Design: Color Theory (3)	
Painting		
ART 327	Painting I (3)	
ART 336	Watercolor Painting (3)	
Printmaking		
ART 361	Printmaking: Survey (3)	
Sculpture		
ART 372	Sculpture (3)	
Ceramics		
ART 390	Ceramics (3)	
Photography		
ARTPH 300	Basic Film and Darkroom Photography (3)	
ARTPH 305	Digital Photography (3)	
Digital Art		
ARTNM 322	Beginning Digital Art (3)	
Other Media		
ART 306	Facial Expression and Anatomy (3)	
or ARTNM 320	Facial Expression and Anatomy (3)	
ART 324	Collage and Assemblage (3)	
ART 330	Mural Painting (3)	
ART 375	Figure Sculpture (3)	
ARTNM 303	Graphic Design: Typography (3)	
ARTNM 324	Digital Design (3)	
ARTNM 370	Introduction to Illustration (3)	
ARTNM 405	Digital 2D Animation (3)	
ARTNM 422	3D Animation (3)	
Second Semester		
ART 305	Figure Drawing II (3)	
ART 312	Portrait Drawing (3)	
ART 328	Painting II (3)	
ART 329	Painting III (3)	
ART 337	Intermediate Watercolor Painting (3)	
ART 373	Intermediate Sculpture (3)	

Course Code	Course Title	Units
ART 391	Intermediate Ceramics (3)	
ARTPH 360	Studio Lighting (3)	
Total Units:		**27**

The Associate in Arts in Studio Art 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- differentiate major historical movements and developments in the visual arts.
- compose or design works of art that utilize a combination of technique, materials, visual ideas, and experiences.
- construct and document an initial portfolio of artworks for professional presentation.
- critique artworks using correct terminology related to concepts, materials, and techniques.
- evaluate form, image, and artistic creation of visual artworks from different traditions, cultures, and civilizations.

Career Information

Individuals with four-year 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, computer 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.

Associate Degrees

A.A. in Art

This degree provides a foundation in art principles and practices and is designed for those interested in transferring to a four-year college or university, and for someone interested in furthering his/her visual arts skills. Course work includes study in art history and a wide range of 2-D and 3-D studio practice courses. 2-D refers to drawing, painting, design, and photography; 3-D refers to ceramics, jewelry, and sculpture.

Degree Requirements

Course Code	Course Title	Units
ART 300	Drawing and Composition I	3
ART 320	Design: Fundamentals (3)	3
ART 370	Three Dimensional Design	3
ART 442	Introduction to Art Gallery Operations (2)	2 - 3
or ART 444	Art Gallery and Portfolio Preparation (3)	
ARTH C1100	Survey of Art from Prehistory to the Medieval Era	3
ARTH 308	Renaissance Tradition in Art (3)	3
or ARTH 310	Modern Art (3)	
A minimum of 15 units from the following:		15
ART 302	Drawing and Composition II (3)	
ART 304	Figure Drawing I (3)	
ART 305	Figure Drawing II (3)	
ART 306	Facial Expression and Anatomy (3)	
ART 312	Portrait Drawing (3)	
ART 323	Design: Color Theory (3)	
ART 324	Collage and Assemblage (3)	
ART 327	Painting I (3)	
ART 328	Painting II (3)	
ART 329	Painting III (3)	
ART 336	Watercolor Painting (3)	
ART 337	Intermediate Watercolor Painting (3)	
ART 361	Printmaking: Survey (3)	
ART 372	Sculpture (3)	
ART 373	Intermediate Sculpture (3)	
ART 375	Figure Sculpture (3)	
ART 376	Functional Sculpture (3)	
ART 390	Ceramics (3)	
ART 391	Intermediate Ceramics (3)	
ART 397	Alternative Firing Processes in Ceramics (3)	
ART 398	Ceramic Murals and Tiles (3)	
ART 430	Art and Children (3)	
ART 440	Artists' Materials and Techniques (3)	
ARTH 300	Art Appreciation (3)	
ARTH 322	Art History of the Non-Western World (3)	
ARTH 333	Introduction to Islamic Art (3)	
ARTH 334	International Contemporary Art (3)	
ARTPH 300	Basic Film and Darkroom Photography (3)	
ARTPH 305	Digital Photography (3)	
ARTPH 310	Intermediate Photography (3)	
ARTPH 322	Color Photography (3)	
ARTPH 340	Alternative Process Photography (3)	
ARTPH 350	Documentary Photography (3)	

Course Code	Course Title	Units
ARTPH 360	Studio Lighting (3)	
ARTPH 370	Fashion, Wedding, and Portrait Photography (3)	
ARTPH 376	Photography Lab: Portfolio Development (1)	
Total Units:		**32 - 33**

The Art Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- differentiate major historical movements and developments in the visual arts.
- evaluate major trends and developments in contemporary works of art.
- compose works of art that utilize a combination of techniques, materials, visual ideas, and experiences.
- construct and document an initial portfolio of artworks for professional presentations.
- critique and analyze subject matter in the visual arts based on theory and technique.
- develop an aesthetic understanding and the ability to make value judgments within the context of images, form, and content of artistic creations.
- conceive and develop conceptual structures of art imagery within a specific technical process.
- assess aesthetic and visual traditions.

Career Information

An Associate Degree in art allows individuals to work in the educational field as well as in museums and galleries. Individuals may also work as graphic artists or designers, illustrators, computer artists, and other commercial work such as freelance photographers. Individuals could also work independently, producing works of art which are displayed in museums, galleries, and other exhibition spaces. Advanced degrees in art may lead to careers as educators, directors, curators, conservators, and restorers.

Certificates of Achievement

Figure Study Certificate

This program offers students an opportunity to study the figure in depth using both two-dimensional and three-dimensional forms. Topics include figure drawing, facial expression and anatomy, portrait drawing and figure sculpture.

Certificate Requirements

Course Code	Course Title	Units
ART 300	Drawing and Composition I	3
ART 304	Figure Drawing I	3
ART 305	Figure Drawing II	3
ART 306	Facial Expression and Anatomy	3
ART 312	Portrait Drawing	3
ART 375	Figure Sculpture	3
Total Units:		**18**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze the use of the figure in historical context.
- compose two-dimensional and three-dimensional works of art using the figure as the main subject.
- critique and analyze works of art where the primary subject matter is the figure, using theory and technique as the basis.
- evaluate trends of figurative art in contemporary uses.
- utilize a variety of techniques to create works with figurative images.
- develop an understanding of basic anatomy of the human form.
- analyze the use of portraiture throughout history.
- develop an understanding of the basic anatomy of the human face.
- construct and create an initial portfolio of artworks using the figure as the primary subject.

Freelance Photography Certificate

This certificate provides training for beginning careers in freelance photography. Topics include basic skills necessary for entry level photography positions or small studio businesses in photography.

Certificate Requirements

Course Code	Course Title	Units
ART 101	Lightroom and Photoshop Basics	0.5
ART 320	Design: Fundamentals (3)	3
or ARTPH 340	Alternative Process Photography (3)	
ARTH 300	Art Appreciation (3)	3
or ARTH 335	Survey of Photography (3)	
or ARTPH 345	Survey of Photography (3)	
ARTPH 300	Basic Film and Darkroom Photography (3)	3
ARTPH 305	Digital Photography	3
ARTPH 310	Intermediate Photography	3
ARTPH 315	Trends in Software and Social Media for Photographers	3
ARTPH 322	Color Photography (3)	3
ARTPH 350	Documentary Photography (3)	3
or ARTPH 370	Fashion, Wedding, and Portrait Photography (3)	
ARTPH 360	Studio Lighting	3
ARTPH 375	Freelance Photography Careers	2
ARTPH 376	Photography Lab: Portfolio Development (1)	0.5 - 4
or ARTPH 498	Work Experience in Art Photography (0.5 -4)	
Total Units:		**30 - 33.5**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- select appropriate digital and film camera equipment and software for various client-based shooting assignments
- utilize a variety of studio lighting techniques for fine art photography or commercial photography
- organize a workflow for storing and editing photographs
- apply design knowledge and skill in the use of photo editing on the computer
- evaluate digital and film photographs for aesthetic quality
- design and create photographic compositions using the principles of visual organization: unity, balance, harmony-variety, rhythm, pattern, proportion/scale, movement, and economy
- compare and contrast historical works of art as they relate to an overall formal assessment of photography
- analyze the different photographic genres throughout history
- develop portfolios of photographs for specific clients
- develop a plan for launching a career in freelance photography
- make effective decisions, use workforce information, and manage his/her personal career plans

Career Information

Job opportunities include, but are not limited to, studio assistant, studio photographer, freelance photographer, editorial photographer, stock photographer, and photo lab manager.

Gallery Management Certificate

This certificate provides a foundation of knowledge, and experience in, the everyday working practices of art museums and galleries.

Certificate Requirements

Course Code	Course Title	Units
ART 442	Introduction to Art Gallery Operations	2
ARTH 300	Art Appreciation (3)	3
or ARTH 310	Modern Art (3)	
or ARTH 334	International Contemporary Art (3)	
A minimum of 6 units from the following:		6
ART 443	Art Gallery Operations (3)	
ART 444	Art Gallery and Portfolio Preparation (3)	
ART 445	Art Gallery Operations (3)	
A minimum of 6 units from the following:		6[1]
ART 300	Drawing and Composition I (3)	
ARTNM 322	Beginning Digital Art (3)	
ARTPH 305	Digital Photography (3)	
A minimum of 1 unit from the following:		1
ART 498	Work Experience in Art (0.5 - 4)	
Total Units:		**18**

[1]or any other studio course from the ART, ARTNM, or ARTPH designators.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- recognize major historical developments in art and culture as they relate to museum and gallery practices.
- identify necessary skills for organizing art exhibits in a gallery setting.
- utilize advanced skills in gallery scheduling and exhibition procedures.

- apply terminology associated with the visual arts while relating to artists and the community.
- apply writing skills to create proposals for exhibitions and to generate community interest.

Sculpture Certificate

This certificate gives students the opportunity to study three-dimensional forms in depth. It offers training for further studies in sculpture. Topics include assemblage, figure sculpture, ceramics, three dimensional design and sculpture with various materials.

Certificate Requirements

Course Code	Course Title	Units
ART 300	Drawing and Composition I	3
ART 324	Collage and Assemblage	3
ART 370	Three Dimensional Design	3
ART 372	Sculpture	3
ART 375	Figure Sculpture	3
ART 390	Ceramics	3
Total Units:		**18**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze compositional principles as they apply to three-dimensional form and space.
- create sculpture utilizing basic traditional and contemporary techniques.
- demonstrate the proper and safe use of various tools such as carving tools and saws.
- demonstrate building three-dimensional forms using various materials and tools.
- utilize tools and technology such as forms, molds, band saws, and a variety of adhesives.
- describe the proper technique for applying plaster and clay to armatures.
- evaluate sketches as they relate to three-dimensional designs.
- define the properties of sculptural form and space.
- demonstrate creative abilities.
- create sculpture(s) based on a variety of source material.
- cite traditional and non-traditional working techniques as they apply to three-dimensional functional and non-functional art forms.
- express creativity through a process of conception, design, execution, finish, and presentation.

Art (ART) Courses

ART 101 Lightroom and Photoshop Basics

Units: 0.5

Hours: 27 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course provides fundamental skills in Adobe Lightroom and Photoshop that artists, gallery personnel, photographers, and fashion industry workers need to manage image and video files for print and web purposes. Topics include file import from cameras and devices, file format, file size, and file management. It also covers Photoshop editing of image files, video files, and Photoshop processing workflows. Drawing in Adobe Photoshop using brushes and layers is introduced.

ART 300 Drawing and Composition I

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Drawing Fundamentals

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

C-ID: C-ID ARTS 110

This course introduces the use of drawing as a means of increasing visual awareness through the exploration of the creative process: observation, discovery, examination, interpretation, and response. Both historical and contemporary drawing practices are explored. Topics include drawings as a means to make connections between the arts and cultural and social issues, in-depth and consistent applications of the cultural and symbolic value of the elements of visual language throughout global art history, and historical and contemporary Asian, African, European, Latin American, and North American drawings and other two-dimensional art forms. This course also emphasizes dynamic compositions using various arrangements of subject matter in order to develop the principles and practices of drawing of a wide range of subjects using a wide range of drawing media. Other topics include the ability to perceive and define both positive and negative

shapes, contour, volume, space, and value with a focus on the clarity of observational skills and the ability to translate three-dimensional form and space into two-dimensional drawings. Both linear and atmospheric perspectives are studied and applied to drawings. Field trips may be required.

ART 302 Drawing and Composition II

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Drawing Fundamentals

Prerequisite: ART 300 with a grade of "C" or better

Transferable: CSU; UC

C-ID: C-ID ARTS 205

This course further develops the skills and concepts introduced in ART 300. It covers the relationships between formal elements such as line, shape, color, texture, value, perspective, and spatial relationships. It emphasizes the creative use of materials. It also includes critiques of student, historical, and contemporary works of art including works in all major genres with a conscious inclusion of artists representing Black, African American, Latinx, Native American, Asian American and Pacific Islander, and LGBTQIA+ communities. Virtual and or in-person field trips may be required.

ART 304 Figure Drawing I

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Figure Studies

Prerequisite: ART 300 with a grade of "C" or better

Transferable: CSU; UC

C-ID: C-ID ARTS 200

This course introduces and explores the human structure based on the history and traditions of the human figure in art. Skills are developed by critically analyzing, drawing, and composing the undraped figure in a representational manner from direct observation. A variety of media are introduced in the exploration of the human form. Field trips may be required.

ART 305 Figure Drawing II

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Figure Studies

Prerequisite: ART 304 with a grade of "C" or better

Advisory: ART 312

Transferable: CSU; UC

This course continues the study of the human figure in art as begun in ART 304. The pursuit of more complex strategies and skills are developed by critically analyzing, drawing, and composing the undraped figure. The use of color tools and the development of personal style are emphasized. Field trips may be required.

ART 306 Facial Expression and Anatomy

Same As: ARTNM 320

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ART 300 with a grade of "C" or better

Advisory: ART 304

Transferable: CSU; UC

This course covers human facial expression and anatomy using live models, anatomical references, and imagination. This course addresses diversity [or the longer list of identity categories] of the human form. Issues of expression as it relates to skeletal and muscular anatomy are addressed through a series of projects. This course is not open to students who have taken ARTNM 320.

ART 312 Portrait Drawing

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ART 300 with a grade of "C" or better

Advisory: ART 304

Transferable: CSU; UC

General Education: Local GE L3

This course introduces the study of the human image in portraiture. Emphasis is on developing the skills needed to portray specific individuals rather than a generalized image of people. Included are the history and traditions of portraiture, the development of anatomical facial features, the use of color media, and personal style. Field trips may be required.

ART 317 Character Design

Same As: ARTNM 372

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Applied Drawing

Prerequisite: ART 302 with a grade of "C" or better

Advisory: ART 304 and ARTNM 302

Transferable: CSU; UC

This course introduces the visual development of characters based on archetypal patterns. Topics include backstory, personality, and physical attributes. Fundamental drawing skills such as shape, form, anatomical structure, and motion will be included. Both digital and traditional media are applied. It also covers the graphical development of characters for animation, games, comics, graphic novels, children's books, and illustrated novels. It is not open to students who have completed ARTNM 372.

ART 320 Design: Fundamentals

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

C-ID: C-ID ARTS 100

This course focuses on the fundamentals of design, establishing a foundation for intermediate and advanced art courses as well as developing a visual and verbal vocabulary essential to understanding and appreciating art and design esthetics. Design principles are applied through a series of studio projects that are derived from the study of both historical schools of art as well as contemporary theory. The elements of line, shape, form, spatial relationships, value, and color are analyzed in concert with their use by artists throughout history. Projects utilize a wide range of tools, media, and presentation techniques. This course is not open to students who have completed ARTNM 310

ART 323 Design: Color Theory

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ART 320 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L3

C-ID: C-ID ARTS 270

This course studies the principles, theories, and application of additive and subtractive color in two dimensions. It includes the use of color systems found in major historical and contemporary artistic styles. A portfolio of design projects in applied color systems is required. Field trips may be required.

ART 324 Collage and Assemblage

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

This course investigates the creation of artworks using the technique of collage and assemblage (the process of assembling and adhering diverse materials and found objects onto another surface). The history of collage and assemblage and basic design theories are introduced. Development of a personal visual style is encouraged. Field trips may be required.

ART 327 Painting I

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Painting

Prerequisite: ART 300 or 320 with a grade of "C" or better

Transferable: CSU; UC

C-ID: C-ID ARTS 210

This course introduces basic techniques and materials of painting. It includes the survey of historical and contemporary development of painting with emphasis on perceptual and technical skills, such as color theory, paint mixing and technique, and creative responses to materials and subject matter. Field trips may be required.

ART 328 Painting II

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Painting

Prerequisite: ART 327 with a grade of "C" or better

Transferable: CSU; UC

This course expands on the basic painting techniques and materials introduced in ART 327. It encourages the development of artistic style and general and specific criticism found in the history of painting. Field trips may be required.

ART 329 Painting III

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Painting

Prerequisite: ART 327 with a grade of "C" or better

Transferable: CSU; UC

This course further develops the skills and concepts introduced in ART 327. Included is the survey of historical and contemporary styles in painting as this pertains to the development of individual style and self expression. Topics may include: post-modern expression, such as image and text; mixed-media; and combining varied styles and techniques within a single artwork. Field trips may be required.

ART 330 Mural Painting

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ART 300 or 320 with a grade of "C" or better

Advisory: ART 327 with a grade of "C" or better

Transferable: CSU; UC

This course provides a survey of mural painting as a public art form. It introduces the historical use of mural painting and 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 may be required to execute the work on location.

ART 336 Watercolor Painting

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Painting

Prerequisite: ART 300 or 320 with a grade of "C" or better

Transferable: CSU; UC

This course introduces painting with transparent aqueous media and techniques focusing on watercolor and gouache. It emphasizes historical and contemporary development, technical skill, color relationship(s), and self-expression using aqueous media in painting. Field trips may be required.

ART 337 Intermediate Watercolor Painting

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Painting

Prerequisite: ART 336 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L3

This course continues the study of the aqueous medium in painting begun in ART 336. More complex techniques, concepts, varying approaches, and methods using the aqueous medium are developed. Personal style is emphasized. Field trips may be required.

ART 339 Integrating Digital Media with Traditional Media I

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L3

This course combines the materials and techniques used in both new media technology and traditional art practices. It explores a wide variety of ideas, tools, and resources. Topics include history, theory, and practice surrounding digital and traditional image generation, image manipulation, image transfer, and material exploration. The course emphasizes developing unique forms of portfolio quality projects demonstrating new approaches and methods of integrating digital media with traditional media forms.

ART 361 Printmaking: Survey

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Printmaking

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L3

C-ID: C-ID ARTS 220

This course covers various printmaking techniques, including but not limited to: relief printing, (wood, linoleum, collagraph, and rubber), monotype, stencil and/or silkscreen printing, intaglio (drypoint etching), and basic pronto plate lithography. Different artists and/or visual examples are discussed each semester. Field trips may be required.

ART 365 Printmaking II

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Printmaking

Prerequisite: ART 361 with a grade of "C" or better

Transferable: CSU; UC

This course covers practices in various printmaking techniques. It expands on the four basic techniques taught in ART 361: relief printing, intaglio, screen printing, and lithography. It also encourages the development of a personal style and the creation of a cohesive body of work using those techniques. Field trips may be required.

ART 370 Three Dimensional Design

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

C-ID: C-ID ARTS 101

This foundation course covers an analysis of historical and contemporary designs, primarily concerned with the visual dialogue between form and space, with focus on visual sensitivity for three-dimensional composition. Line, plane, and volume are utilized to construct 3-D forms using a variety of materials which may include, but is not limited to clay, metal, wood, fibers, mixed media, plaster, and paper. Students are responsible for providing their own materials for the course.

ART 372 Sculpture

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Sculpture

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

This is an introductory course in sculpture. It covers expressive use of form, color, and various sculptural methods, such as additive and subtractive media using clay and plaster, and constructive media like wood and steel; found objects and other materials may also be explored. This course utilizes a problem-solving format in order to develop knowledge of technical process, formal vocabulary, and individual expression. Both historical and contemporary approaches in developing form and content are included. Field trips may be required.

ART 373 Intermediate Sculpture

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Sculpture

Prerequisite: ART 372 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

This is an intermediate course in the practice of the expressive use of form in three-dimensional space. It utilizes traditional additive and subtractive media, as well as constructive media, and other contemporary materials. This course utilizes a problem-solving format in order to develop knowledge of technical process, formal vocabulary, and individual expression. It examines both historical and contemporary approaches in developing form and content.

ART 375 Figure Sculpture

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Figure Studies

Prerequisite: None.

Advisory: ART 304

Transferable: CSU; UC

This course introduces figure sculpture, using the live nude model as reference. Concepts of human anatomy are emphasized through the use of quick gestural studies and sustained sculptural projects. Field trips may be required.

ART 376 Functional Sculpture

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Sculpture

Prerequisite: None.

Advisory: ESL 325 with a grade of "C" or better; Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

This course covers the hands-on basics of metal forming, design principles and materials used for sculpture, and functional art forms with emphasis on the use of the anvil and the gas forge. Topics include hand forging metal techniques, furniture and sculpture design, finishing processes, and the use of patinas.

ART 390 Ceramics

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Ceramics-Hybrid

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L3

This course is a beginning ceramics class in hand building and throwing techniques. Elementary clay construction including pinch pot, coil, slab, and slump molds are covered as well as an introduction to the potter's wheel. Different methods of glazing and firing
are studied. The history and theory of ceramics are examined.

ART 391 Intermediate Ceramics

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Ceramics-Hybrid

Prerequisite: ART 390 with a grade of "C" or better

Transferable: CSU; UC

This is an intermediate course in wheel-throwing and sculpture techniques. It explores the technical and creative processes of ceramic pottery making and sculpture including surface treatment and various firing processes. Focus is placed on an in-depth examination of contemporary ceramics. Different artists, techniques, and projects are explored each semester.

ART 397 Alternative Firing Processes in Ceramics

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Ceramics-Hybrid

Prerequisite: ART 390 with a grade of "C" or better

Transferable: CSU; UC

This course covers alternative firing processes in ceramics which include raku, wood, soda, saggar, sawdust, and pit firing. Ceramics is explored through hand-building and wheel-throwing techniques. Glaze formulation for the firing processes is included. Emphasis is placed on in-depth examinations of the history of kilns and firing techniques. Different firing processes are explored each semester. Field trips may be required.

ART 398 Ceramic Murals and Tiles

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Ceramics-Hybrid

Prerequisite: ART 390 with a grade of "C" or better

Transferable: CSU

This course introduces ceramic mural and tile methods and techniques. It explores the technical and creative process of site-specific mural and tile making including bas relief, press molds, various surface treatments, and installation methods. Focus is placed on an in-depth examination of the history of ceramic tiles and murals.

ART 430 Art and Children

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU

General Education: Local GE L3

This course introduces the use of artists' materials and techniques appropriate for teaching art to children. It includes the study of art history, including various movements (ism's) and concepts in creating artwork. This course covers the process of creating lesson plans, doing preparatory work for presenting art projects, and creation of drawings, paintings, and sculptures. It also covers how to identify and properly use, maintain, store, and clean commonly used art materials. Topics include proper identification, utilization, and presentation of basic art principles, and an understanding of age-specific capabilities in children. Field trips may be required.

ART 440 Artists' Materials and Techniques

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Studio Art and Practice

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

This course focuses on analyzing and developing artists' mediums and techniques. Historical information about various materials, development, and their relationship to personal imagery and style are emphasized. The composition of pigments, their historical origins, and various binders are explored. The construction of various artists' substrates and supports as well as the techniques of matting and framing artwork are also covered. A supply fee may be required for this course. Field trips may be required.

ART 442 Introduction to Art Gallery Operations

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Course Family: Gallery Management

Prerequisite: Successful completion of two studio courses from ART, ARTNM, ARTPH.

Transferable: CSU

This course introduces gallery operations to art students. It involves hands-on experience in curating, planning, and installing exhibitions. A portion of this course is offered in a TBA component of 16-30 hours, which may include work as a gallery attendant or gallery docent. Field trips may be required.

ART 443 Art Gallery Operations

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Gallery Management

Prerequisite: ART 442 with a grade of "C" or better

Transferable: CSU

This course is a continuation in art gallery operations building on the concepts of proper handling of artwork; installing art exhibits; interacting with artists, patrons, and the public; planning and curating; inventory and maintenance of artwork; and gallery and student outreach. A portion of this course is offered in a TBA component of 16-30 hours which may include work experience as a gallery attendant or docent. Field trips are required.

ART 444 Art Gallery and Portfolio Preparation

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Studio Art and Practice

Prerequisite: ART 442 with a grade of "C" or better

Advisory: Eligible for ENGRD 116 AND ENGWR 101; OR ESLR 320 AND ESLW 320.

Transferable: CSU

This course offers study in both sides of the business world of art, including gaining entrance into galleries as an artist and finding, installing, and advertising professional gallery exhibitions. It emphasizes the creation of individual portfolios and portfolio management. Topics include selecting exhibitions, creating announcements, organizing receptions, and sending out press releases in addition to photographing art and preparing documents to accompany exhibitions. It also covers creating artist statements, digital portfolios properly formatted on a disk, business cards, cover letters, and resumes. Field trips are required.

ART 445 Art Gallery Operations

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Gallery Management

Prerequisite: ART 443 with a grade of "C" or better

Transferable: CSU

This course continues students' experiences in gallery operations. It provides additional exposure to gallery operations, including planning and installing exhibitions, lighting techniques, assistance in maintaining a permanent art collection, introduction to conservation techniques, participation in staffing and docent activities, gallery and student outreach programs, and assistance with additional on- and off-campus exhibitions. A portion of this course is offered in a TBA component of 16-30 hours which may include work experience as a gallery attendant or docent. Field trips are required.

ART 470 Art Lab

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Corequisite: Concurrent enrollment in ART 300, 302, 304, 305, 306, 312, 317, 320, 323, 324, 327, 328, 329, 330, 336, 337, 339, 361, 440, ARTNM 320, 370, OR 372.

Transferable: CSU

This course offers additional lab hours to more fully develop creative vision and technical skills. It provides additional assistance in assignments and portfolio development.

ART 494 Topics in Art

Units: 0.5 - 4

Hours: 6 - 48 hours LEC; 9 - 72 hours LAB

Prerequisite: None.

Transferable: CSU

This course is designed to offer unique, meaningful, or transient topics in art that are not included in current course offerings. Topics may include glass blowing; air brush, encaustic, fresco, or sumi painting technique; or bronze casting, for example.

ART 495 Independent Studies in Art

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ART 498 Work Experience in Art

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses.Students are advised to consult with the Art Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of art. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with the employer when the course is repeated. Only one Work Experience course may be taken per semester.

ART 499 Experimental Offering in Art

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Art Photography (ARTPH) Courses

ARTPH 300 Basic Film and Darkroom Photography

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

C-ID: C-ID ARTS 260

This course examines the formal and technical aspects of film photography. Topics include critiques of major movements in the history of photography and contemporary gelatin silver process artists. A problem-solving approach is utilized to explore compositional ideas. Camera operation, gelatin silver film developing, and gelatin silver printmaking are covered. Chromogenic color negative film (C-41 film) and color reversal film (E-6 film) processing is also introduced. Digital photography file management and editing concepts are introduced through film scans. A film camera as well as darkroom and portfolio supplies are required. Virtual or in-person field trips and keynote artists' talks may be required.

ARTPH 302 Black and White Silver Gelatin Photography Lab

Units: 1

Hours: 54 hours LAB

Course Family: Studio Art and Practice

Prerequisite: None.

Corequisite: ARTPH 300 or 340

Transferable: CSU

This course offers additional lab hours to more fully develop creative vision and technical skills in black and white silver gelatin photography. It also allows alternative process photographers additional lab hours for development of film and digital negatives. It provides additional assistance in assignments and portfolio development for ARTPH 300 and ARTPH 340.

ARTPH 305 Digital Photography

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: ARTNM 302 with a grade of "C" or better; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

This is a course in basic digital photography. Topics include digital camera functions, exposure systems using f-stop and shutter speed combinations, digital shooting practices, photographic composition and aesthetics, editing tools and software, and portfolio development. It also includes issues in contemporary photography and the history of photography. Digital cameras with full range of manually adjustable f-stops and shutter speeds, camera memory cards, and re-writable memory devices are required. Field trips may be required.

ARTPH 306 Photography Lab: Digital Editing

Units: 1

Hours: 54 hours LAB

Course Family: Studio Art and Practice

Prerequisite: None.

Corequisite: ARTPH 305, 310, 322, or 360

Transferable: CSU

This course offers additional lab hours to more fully develop creative vision and technical skills in digital image editing, processing, and printing. It provides additional assistance in assignments and portfolio development in ARTPH 305, ARTPH 310, ARTPH 322, and ARTPH 360.

ARTPH 310 Intermediate Photography

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTPH 300 or 305 with a grade of "C" or better

Transferable: CSU

This course covers the technical control of black and white photographic materials and equipment. Professional camera techniques and the creative aspects of photography are emphasized. A 35mm single lens reflex (SLR) or digital single lens reflex (DSLR) camera or digital camera with manual options is required. Darkroom and portfolio supplies are also required. Field trips may be required.

ARTPH 315 Trends in Software and Social Media for Photographers

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTPH 305 with a grade of "C" or better

Enrollment Limitation: Should not be taken concurrently with ARTPH 305

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

This course covers trends in photographic editing and presentation software. Editing photographs in Photoshop and file management in Lightroom along with introductions to other software are covered. Topics include uses of social media in presentation and dissemination of photographs for commercial and artistic purposes, as well as photographic output to print, social media, and the internet.

ARTPH 322 Color Photography

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTPH 300 or 305 with a grade of "C" or better

Transferable: CSU; UC

This course covers the aesthetic aspects of color photography involving camera and digital techniques emphasizing uniqueness of expression. It includes a continuing exploration of form and composition, lighting and exposure, film characteristics and scanning, and digital capture and editing, with emphasis on color photography as an art form. Color correction, color management, work flow, and other digital concepts are included. A 35mm single lens reflex (SLR) or digital camera with manual options as well as memory devices and portfolio supplies are required. Field trips may be required.

ARTPH 340 Alternative Process Photography

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

This course covers alternative photographic printing processes produced in ultraviolet light or sunlight. No camera or darkroom is necessary. Image processes such as salt prints, cyanotypes, Van Dyke brown prints, gum prints, palladium prints, and wet-plate photography are covered. It includes the history of photographic processes from the daguerreotype to the digital age. Negatives are produced from digital transparencies, Xerox transparencies, transparency film, and natural objects and handmade pin-hole cameras. Varied printing substrates are covered.

ARTPH 345 Survey of Photography

Same As: ARTH 335

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course is a survey of photography. It explores the evolution of the photographic medium, its impact on art, culture, and history from the inception of photography to current trends. This survey covers various genres, including fine art, journalism, science, and social media. Field trips may be required. This course is not open to students who have completed ARTH 335.

ARTPH 350 Documentary Photography

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTPH 300 or 305 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

A survey of the historical and practical aspects of photography as an art form and social document, this course provides instruction in documentary photography and photojournalism techniques and concepts. Both contemporary and historical photographers from around the world challenges each students' understanding of ethics and genre. Visual literacy is gained through image production. A portfolio including an extensive photo essay or documentary project develops students' understanding of the various technical and critical thinking skills used in this field. A 35mm single lens reflex (SLR) camera or a digital camera (dSLR or mirrorless) with manual options as well as darkroom, digital, and portfolio supplies are required. Field trips may be required.

ARTPH 360 Studio Lighting

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTPH 300 or 305 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L3

This course is a study in studio lighting artists, concepts, techniques used in photography. It explores historical use of continuous lighting, creative use of strobes in modern photography and the democratization of lighting through flash photography. Students gain understanding of studio lighting techniques through varied lighting ratios, correct exposure using an electronic flash and metering, basic portraiture, choice of lighting equipment and modifiers, white balance adjustments, and composition choices. Black and white, color, and digital processes are included. A 35mm single lens reflex (SLR) or digital camera (dSLR or mirrorless) with manual options, lighting sync port, as well as darkroom or digital and portfolio supplies are required.

ARTPH 361 Photography Lab: Studio Lighting

Units: 1

Hours: 54 hours LAB

Course Family: Studio Art and Practice

Prerequisite: None.

Corequisite: ARTPH 360 or 370

Transferable: CSU

This course offers additional lab hours to more fully develop creative vision and technical skills in studio lighting and large format photography. It provides additional assistance in assignments and portfolio development for ARTPH 360 and ARTPH 370.

ARTPH 370 Fashion, Wedding, and Portrait Photography

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTPH 300 or 305 with a grade of "C" or better

Transferable: CSU

This course is an overview of basic fashion, wedding, and portrait photography concepts. Topics include major movements in fashion and portrait photography as well as the study of specific fashion photographers. This course also includes studio portrait lighting and styling techniques specific to fashion, wedding, and portrait photography. Wedding photojournalism is also covered. A digital camera (DSLR or mirrorless) with manual options is required. Fashion shoots are required. Field trips may be required.

ARTPH 375 Freelance Photography Careers

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course covers careers in freelance photography including commercial photography, journalism, and fine art photography. It introduces the basic elements of implementing photography project plans, including necessary permits, aesthetic style choices, marketing, photography pricing, and portfolio presentations. This course also covers preparing, presenting, and implementing freelance photography career plans.

ARTPH 376 Photography Lab: Portfolio Development

Units: 1

Hours: 54 hours LAB

Course Family: Studio Art and Practice

Prerequisite: None.

Corequisite: Concurrent enrollment in ARTPH 300, ARTPH 305, ARTPH 310, ARTPH 320, ARTPH 340, ARTPH 350, ARTPH 360, ARTPH 370, ARTPH 375, or ARTPH 495

Transferable: CSU; UC

This course offers additional lab hours to more fully develop creative vision and technical skills. It provides additional assistance in assignments and portfolio development.

ARTPH 495 Independent Studies in Art Photography

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ARTPH 498 Work Experience in Art Photography

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Art Photography Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of art photography. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with the employer when the course is repeated. Only one Work Experience course may be taken per semester.

ARTPH 499 Experimental Offering in Art Photography

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Art History

Overview

American River College's Art History degree is designed to give students the foundation in art history necessary for transfer to a four-year college or university, and is also useful to those hoping to have a specialization in related fields such as art, history, archaeology, or anthropology. Coursework includes a range of survey classes in art history, as well as a choice between 2-D and 3-D fine arts electives.

The Art Department at American River College also offers students opportunities for enrichment including complimentary museum field trips, rotating exhibitions at the Kaneko Gallery on campus, and artist talks and demonstrations. Art history students who hope to pursue careers in gallery or museum work can take advantage of our related Gallery Certificate program to receive specialized training, and can apply for relevant local internships to further expand their experiences.

Degrees Offered

A.A.-T. in Art History

Dean: Corinne Arrieta Katzorke

Department Chair: Patricia Wood

Phone: (916) 484-8570

Email: AskHB-Arts@arc.losrios.edu

Associate Degree for Transfer

A.A.-T. in Art History

The Associate in Arts in Art History for Transfer (AA-T) provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Art History at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, §66746):
• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

All ADTs also require that students must earn a “C” or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		

Course Code	Course Title	Units
ARTH C1100	Survey of Art from Prehistory to the Medieval Era	3
ARTH 308	Renaissance Tradition in Art	3
ARTH 310	Modern Art	3
ART 300	Drawing and Composition I	3
A minimum of 3 units from the following:		3
ARTH 322	Art History of the Non-Western World (3)	
ARTH 333	Introduction to Islamic Art (3)	
ARTH 334	International Contemporary Art (3)	
List A, Further Preparation in Art History:		
A minimum of 3 units from the following:		3[1]
ARTH 318	History of American Art (3)	
ARTH 322	Art History of the Non-Western World (3)	
ARTH 333	Introduction to Islamic Art (3)	
ARTH 334	International Contemporary Art (3)	
ARTH 335	Survey of Photography (3)	
List B, Studio Arts:		
A minimum of 3 units from the following:		3
ART 302	Drawing and Composition II (3)	
ART 304	Figure Drawing I (3)	
ART 305	Figure Drawing II (3)	
ART 306	Facial Expression and Anatomy (3)	
or ARTNM 320	Facial Expression and Anatomy (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 329	Painting III (3)	
ART 330	Mural Painting (3)	
ART 336	Watercolor Painting (3)	
ART 337	Intermediate Watercolor Painting (3)	
ART 361	Printmaking: Survey (3)	
ART 370	Three Dimensional Design (3)	
ART 372	Sculpture (3)	
ART 373	Intermediate Sculpture (3)	
ART 375	Figure Sculpture (3)	
ART 390	Ceramics (3)	
ART 391	Intermediate Ceramics (3)	
ARTNM 303	Graphic Design: Typography (3)	
ARTNM 322	Beginning Digital Art (3)	
ARTNM 324	Digital Design (3)	
ARTNM 370	Introduction to Illustration (3)	
ARTNM 405	Digital 2D Animation (3)	
ARTPH 300	Basic Film and Darkroom Photography (3)	
ARTPH 305	Digital Photography (3)	
ARTPH 360	Studio Lighting (3)	
Total Units:		**21**

[1]Courses that appear in multiple lists can be used to satisfy only one list's requirements.

The Associate in Arts in Art History 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess and evaluate the contributions of artists throughout history.
- identify and evaluate works of art or architecture according to their appropriate style and time frame.
- analyze and critique art and architecture within the context of their functions and meanings.
- research and assess theoretical information concerning the meanings and purposes of art and architecture.
- explain the history of cultures and civilizations and how art and architecture is a reflection of that history.

Career Information

Art historians with undergraduate degrees are placed as registrars, preparators, and curatorial staff in art museums and galleries; they can also be employed as art critics in mass media publications, such as newspapers and magazines. An advanced degree allows an art historian a wider range of possible career applications, including museums directorships, curators, instructors, preservationists, researchers, and auction house personnel.

Art History (ARTH) Courses

ARTH 300 Art Appreciation

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (ARTH 300 & 480 combined: maximum credit - one course)

General Education: Local GE L3; Cal-GETC Area 3A

C-ID: C-ID ARTH 100

This course is a survey of the history and analysis of the visual arts, including drawing, painting, sculpture, architecture, and additional media. It offers a foundation for understanding art across time and in diverse cultures. Field trips to art galleries or museums may be required.

ARTH C1100 Survey of Art from Prehistory to the Medieval Era

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

C-ID: C-ID ARTH 110

This course was formerly known as ARTH 302 Art: Stone Age Through the Middle Ages.

This course introduces students to visual art and architecture from prehistory to the medieval era with a focus on art from Europe, North Africa, and the Near East. The course will further consider global interactions involving these regions. This course was formerly known as ARTH 302 and is not open to students who have already completed ARTH 302.

ARTH 308 Renaissance Tradition in Art

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

C-ID: Part of C-ID ARTH 120

This course is a study of painting, sculpture, and architecture of European cultures from the 14th century early Renaissance to the late Baroque period. Outstanding art works of each major period are discussed, analyzed, and placed within historical context. A field trip to an art museum or art gallery may be required.

ARTH 310 Modern Art

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

C-ID: C-ID ARTH 150; Part of C-ID ARTH 120

This course covers 18th, 19th, 20th and 21st century art forms including painting, sculpture, and architecture in Europe and America. It addresses styles including Rococo, Neoclassicism, Romanticism, Realism, Impressionism and Post-Impressionism, and the major movements of the 20th century. Postmodern art is also discussed. A field trip to an art museum or art gallery may be required.

ARTH 318 History of American Art

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course covers art in America from initial European contact to the present day. Topics include initial images of the New World made by Europeans; early art and architecture that reflects a synthesis of Native and European traditions; Colonial and early American art, architecture, and decorative arts; 19th-century portraits, landscapes, and history paintings; and regional and later modernist American art of the twentieth century. This course emphasizes the influence of European traditions as well as the history of a variety of cultures in the present day United States, the variety of styles and patrons in the country, and the way in which cultural values find expression in art, architecture, and decorative arts. An individual or group field trip to a museum or art gallery is required.

ARTH 322 Art History of the Non-Western World

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This is a survey of art history throughout India, Africa, the Americas, the Arctic, Australia, and Oceania. It covers the architecture, sculpture, and painting of the peoples in these parts of the world. The time period spans from the Stone Age to the 18th century. Field trips and/or individual visits to art galleries and museums are required.

ARTH 333 Introduction to Islamic Art

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course surveys the art and culture of the Muslim World. It examines the problematic nature of the term "Islamic," as well as the art and architecture and provides fundamental information on the formation of the art, its history, and philosophy. It includes, but is not limited to, visual examples from Arabic, North African, Persian, Indian, and Asian cultures.

ARTH 334 International Contemporary Art

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course is a worldwide survey of trends in art, including painting, sculpture, and architecture since 1980, with an emphasis on the diversity of contemporary global cultures. New art mediums, such as video, computer, street art, and performance art are highlighted. This course focuses on social and political commentary in art. A field trip to a local art exhibition may be required.

ARTH 335 Survey of Photography

Same As: ARTPH 345

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course is a survey of photography. It explores the evolution of the photographic medium, its impact on art, culture, and history from the inception of photography to current trends. This survey covers various genres, including fine art, journalism, science, and social media. Field trips may be required. This course is not open to students who have completed ARTPH 345.

ARTH 499 Experimental Offering in Art History

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Art New Media

Overview

This degree emphasizes visual arts produced in a digital environment. Art New Media focuses on new technology and a strong foundation in the fundamentals of visual art. Coursework includes a wide spectrum of studies in traditional and new media fundamentals relevant to art and design.

Degrees and Certificates Offered

A.A. in Animation

A.A. in Art New Media

3D Modeling and Texturing Certificate

3D Rigging Technical Director Certificate

3D Technical Director Certificate

Animation Certificate

Art New Media: Illustration Certificate

ARTNM: Character Design Certificate

ARTNM: Commercial Illustration Certificate

ARTNM: Web Design Certificate

Graphic Design: Intern Artist Certificate

Graphic Design: Junior Artist Certificate

Graphic Design: Production Artist Certificate

Technical Communications Certificate

Dean: Corinne Arrieta Katzorke
Department Chair: Matthew Stoehr
Phone: (916) 484-8570
Email: AskHB-Arts@arc.losrios.edu

Associate Degrees

A.A. in Animation

This degree emphasizes art and animation principles ultimately produced in a digital environment, combining technology with a strong foundation in traditional visual art principles. Students engage in rigorous coursework covering drawing, color theory, design, perspective, and both conventional and digital art. The curriculum spans traditional and 3D animation techniques, with an emphasis on animation for film and games. Utilizing industry-standard tools and processes, students study key components of the animation pipeline including storyboarding, character design, visual development, and physics of motion. Through hands-on experience in a collaborative production environment, students learn the full animation workflow from story concept to final rendering, culminating in a portfolio-ready animated art works. This degree is preparation for lower-division course work at four-year universities.

Degree Requirements

Course Code	Course Title	Units
ART 300	Drawing and Composition I	3
ART 320	Design: Fundamentals	3
ART 323	Design: Color Theory	3
ART 370	Three Dimensional Design	3
A minimum of 3 units from the following:		3
ARTH 308	Renaissance Tradition in Art (3)	
ARTH 310	Modern Art (3)	
ARTH 322	Art History of the Non-Western World (3)	
ARTH C1100	Survey of Art from Prehistory to the Medieval Era (3)	
A minimum of 12 units from the following:		12
ART 327	Painting I (3)	
ART 328	Painting II (3)	
ART 372	Sculpture (3)	
ARTNM 320	Facial Expression and Anatomy (3)	
ARTNM 326	Digital Painting (3)	
ARTNM 372	Character Design (3)	
ARTNM 373	Storyboarding (3)	
ARTNM 405	Digital 2D Animation (3)	
ARTNM 422	3D Animation (3)	
ARTNM 431	Short Production (3)	
ARTPH 305	Digital Photography (3)	
Total Units:		**27**

The Animation Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- Demonstrate proficiency in traditional and digital drawing and design principles, including composition, perspective, color theory, and three-dimensional form.
- Analyze historical and contemporary art and design traditions and apply foundational fine arts principles - composition, form, color, and spatial design - to the development of animated visual narratives.
- Apply principles of animation—such as timing, spacing, squash and stretch, and anticipation—to create expressive and believable motion.
- Utilize industry-standard digital tools to produce 2D and 3D animations for varied narrative and commercial media contexts, including film, games, interactive media, and digital publication.
- Design and develop characters, environments, and visual narratives through storyboarding and visual development processes.
- Develop a portfolio-ready animation project demonstrating the animation production pipeline from concept to completion.
- Critique animated works based on visual, technical, and storytelling effectiveness using discipline-specific terminology.
- Collaborate effectively in a production environment, contributing to group-based projects that simulate professional animation workflows.

Career Information

This degree is designed to facilitate students' successful transfer to four-year programs. From there, students are prepared for a variety of careers such as animator, story artist, storyboard artist, director, or game art developer.

A.A. in Art New Media

This degree emphasizes visual arts produced in a digital environment. Art New Media focuses on new technology and a strong foundation in the fundamentals of visual art. Coursework includes a wide spectrum of studies in traditional and new media fundamentals relevant to art and design.

Degree Requirements

Course Code	Course Title	Units
ART 300	Drawing and Composition I	3
ART 320	Design: Fundamentals (3)	3
ART 323	Design: Color Theory	3
ARTH 310	Modern Art	3
ARTNM 305	History of Graphic Design	3
ARTNM 450	Portfolio for Art New Media	3
A minimum of 15 units from the following:		15
ART 339	Integrating Digital Media with Traditional Media I (3)	
ARTNM 302	Digital Basics for Art New Media (1.5)	
ARTNM 303	Graphic Design: Typography (3)	
ARTNM 320	Facial Expression and Anatomy (3)	
or ART 306	Facial Expression and Anatomy (3)	
ARTNM 322	Beginning Digital Art (3)	
ARTNM 324	Digital Design (3)	
ARTNM 325	Intermediate Digital Design (3)	
ARTNM 326	Digital Painting (3)	
ARTNM 328	Beginning Digital Photo Imagery (3)	
ARTNM 330	Intermediate Digital Photo Imagery (3)	
ARTNM 332	Digital Video (3)	
ARTNM 352	Design for Publication (3)	
ARTNM 354	Digital Prepress (3)	
ARTNM 358	College Magazine: Art Selection and Editing (1 - 2)	
ARTNM 359	College Magazine: Design and Production (3)	
ARTNM 370	Introduction to Illustration (3)	
ARTNM 371	Comic Book Development and Structure (3)	
ARTNM 372	Character Design (3)	
or ART 317	Character Design (3)	
ARTNM 373	Storyboarding (3)	
ARTNM 401	Introduction to Web Design (3)	
ARTNM 402	Intermediate Web Design (3)	
ARTNM 404	Interactive Basics (3)	
ARTNM 405	Digital 2D Animation (3)	
ARTNM 406	Design for Tablets (3)	
ARTNM 420	Introduction to 3D Modeling (3)	
ARTNM 421	3D Modeling and Texturing II - Character (3)	
ARTNM 422	3D Animation (3)	
ARTNM 423	3D Modeling and Texturing III - Environment (3)	
ARTNM 429	3D Rigging and Rig Building (3)	
ARTNM 431	Short Production (3)	
CISW 300	Web Publishing (3)	
ARTNM 498	Work Experience in Art New Media (0.5 - 4)	
or WEXP 498	Work Experience in (Subject) (0.5 - 4)	
Total Units:		**33**

The Art New Media Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze design principles relevant to new media technology.
- combine various technical skills in the field of art new media.
- create visual images utilizing traditional and/or digital media.
- synthesize concepts of modern art history and apply them to illustration, animation, graphic design, and web design.
- conceive visual solutions for successful visual communication.
- critique new media works.

Career Information

Career opportunities include Graphic Designer, Character Designer, 3D Animator, Web Designer, 3D Modeler and Texture Artist, 3D Artist, Commercial Illustrator, and Print Designer.

Certificates of Achievement

3D Modeling and Texturing Certificate

This certificate combines a foundation of traditional sculpture and painting with computer-generated three-dimensional digital modeling and painting. High polygon modeling techniques are used to create assets for any industry in need of 3D modeling and texturing. Texturing will focus primarily on the use of manipulated and painted imagery to create complex surfaces.

Certificate Requirements

Course Code	Course Title	Units
ART 300	Drawing and Composition I	3
ARTNM 420	Introduction to 3D Modeling	3
ARTNM 421	3D Modeling and Texturing II - Character	3
ARTNM 423	3D Modeling and Texturing III - Environment	3
A minimum of 3 units from the following:		3
ARTNM 320	Facial Expression and Anatomy (3)	
ARTNM 372	Character Design (3)	
A minimum of 3 units from the following:		3
ARTNM 431	Short Production (3)	
WEXP 498	Work Experience in (Subject) (0.5 - 4)	
Total Units:		**18**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- create complex 3D environments, characters, and props to be used in any production.
- create believable models of objects from life, photographs, or hand-drawn reference.
- create accurate models of the human anatomy with a clear and clean polygon flow showing muscle, fat, skin, and bone topology.
- create believable textures from reference images.
- analyze and assess the needs of a project and determine the complexity of the models and textures to match the project.
- create clean, high polygon count, polygon meshes ready for production.
- create facial structures and shape targets preparing the character for facial animation.
- create a portfolio-quality modeling and texturing demonstration reel.

Career Information

Students can continue their studies in 3D modeling and texturing at a four-year college or choose to apply their 3D modeling and texturing skills in the film, game, and broadcast industries, as well as other local industries, such as medical, legal, engineering, and fine art.

3D Rigging Technical Director Certificate

This certificate offers training on the articulation of movement for 3D objects, environments, and characters. Rigging is the process of giving a character controls for movement, therein "articulating" its range of motion, or bringing the character to life. Standard rigs for vehicles, bipedal, and quadrupedal characters are created, as well as rig variations, such as cartoon rigs to maximize flexibility. In addition, students are expected to increase efficiency of production by creating rig building tools. Also, interfacing tools are created to increase efficiency and usability of the rigs in production.

Certificate Requirements

Course Code	Course Title	Units
ARTNM 420	Introduction to 3D Modeling	3
ARTNM 429	3D Rigging and Rig Building	3
CISC 323	Linux Operating System	1
CISP 300	Algorithm Design/Problem Solving	3
MATH 372	College Algebra for Calculus	4
MATH 373	Trigonometry for Calculus	4
A minimum of 3 units from the following:		3
ARTNM 431	Short Production (3)	
or WEXP 498	Work Experience in (Subject) (0.5 - 4)	
Total Units:		**21**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- differentiate the types of deformers to achieve a specific deformation called for by animation.
- create a concise set of animation controls.
- analyze the animator's needs to provide and refine an articulation of the full range of expressions and body movement needed to support a character's acting range.
- create a portfolio quality demonstration reel of their rigs animated.
- proficiently use a programming language to solve rigging problems, create new tools, and create interfacing tools for the animator.
- proficiently use math to solve rigging problems.
- design and maintain master rigs that can be re-used as a basis for articulating similar characters, or applying existing rigs to newly created character sculpts.
- differentiate the deformation needs of realistic musculature and traditional cartoon movement.

Career Information

Students can apply their 3D rigging skills in film, game, and broadcast, as well as local industries, such as medical, legal, engineering, Web, and fine art. Students can continue their studies in 3D rigging at a four-year college or choose an entry-level position in any of the 3D animation industries.

3D Technical Director Certificate

This certificate offers a comprehensive understanding of the computer generated three-dimensional (CG 3D) production process. It is designed for self-learners, entrepreneurs, and developers of independent content or someone looking for a high-level position in a 3D animation company. A broad range of topics are covered from traditional sculpting to digital rendering. In addition to technical direction, this certificate is ideal for any 3D Generalist position.

Certificate Requirements

Course Code	Course Title	Units
ART 300	Drawing and Composition I	3
ARTNM 320	Facial Expression and Anatomy	3
ARTNM 420	Introduction to 3D Modeling	3
ARTNM 429	3D Rigging and Rig Building	3
CISC 323	Linux Operating System	1
CISP 300	Algorithm Design/Problem Solving	3
A minimum of 6 units from the following:		6
ARTNM 421	3D Modeling and Texturing II - Character (3)	
ARTNM 423	3D Modeling and Texturing III - Environment (3)	
ARTNM 431	Short Production (3)	
A minimum of 8 units from the following:		8
CISP 360	Introduction to Structured Programming (4)	
MATH 372	College Algebra for Calculus (4)	
and MATH 373	Trigonometry for Calculus (4)	
MATH 375	Pre-Calculus (6)	
WEXP 498	Work Experience in (Subject) (0.5 - 4)	
Total Units:		**30**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- plan a production pipeline and solve 3D production issues with a holistic understanding of 3D.
- create portfolio-quality demonstration reels with animation, modeling, texturing, and rigging.
- differentiate various 3D software strengths and weaknesses.
- apply for an entry-level 3D position calling for a 3D Technical Director or 3D Generalist.
- create digital textures and materials from observing and scanning real-world surfaces and materials.
- apply textures and materials to a computer-generated environment.

Career Information

Students can apply 3D skills in film, game, and broadcast, as well as local industries, such as medical, legal, engineering, interactive, and fine art. Students can continue their studies in 3D at a four-year college or choose an entry-level position in any of the 3D animation industries.

Animation Certificate

This certificate focuses on traditional animation principles to create believable animations. Animations created range from motion graphics for broadcast television to animated product placement to characters used for the telling of fantastic stories. It focuses on skill sets in both the traditional arts and digital environments.

Certificate Requirements

Course Code	Course Title	Units
ART 300	Drawing and Composition I	3
ARTNM 373	Storyboarding	3
ARTNM 405	Digital 2D Animation	3
ARTNM 422	3D Animation	3
A minimum of 3 units from the following:		3
ART 306	Facial Expression and Anatomy (3)	
or ARTNM 320	Facial Expression and Anatomy (3)	
ART 317	Character Design (3)	
or ARTNM 372	Character Design (3)	
A minimum of 3 units from the following:		3
ARTNM 431	Short Production (3)	
WEXP 498	Work Experience in (Subject) (0.5 - 4)	
Total Units:		**18**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- research and demonstrate application of the principles of animation to tell a story with meaning through movement.
- create the motions, gestures, and expressions of three-dimensional computer graphics characters and objects.

- critique animation and regularly improve upon demonstration reels.
- create a portfolio-quality animation demonstration reel.
- create animation from live reference, video reference, and from hand-drawn imagery.
- create animation in various 2D and 3D software programs and apply the principles regardless of the software differences.
- block-in movements in rough animation and show for approval in a weekly review.
- finish work for approval in a timely manner.

Career Information

Students can apply animation skills in film, game, and broadcast, as well as local industries, such as medical, legal, engineering, Web, fine art, and entrepreneurial. Students can continue their studies in animation at a four-year college or choose an entry level position in any of the animation industries.

Art New Media: Illustration Certificate

This certificate focuses on using traditional visual art principles to clearly communicate the needs of a client and/or target a specific audience. It includes skill sets from both the traditional arts and digital media. Illustration skills are applied in animation, character design, 3D modeling and texturing, set design, product design, as well as areas of editorial, advertising, technical, and book illustration.

Certificate Requirements

Course Code	Course Title	Units
ART 300	Drawing and Composition I	3
ART 304	Figure Drawing I	3
ART 323	Design: Color Theory	3
ART 327	Painting I (3)	3
or ART 336	Watercolor Painting (3)	
ARTH 310	Modern Art	3
ART 320	Design: Fundamentals (3)	3
ARTNM 320	Facial Expression and Anatomy (3)	3
or ART 306	Facial Expression and Anatomy (3)	
ARTNM 324	Digital Design	3
ARTNM 326	Digital Painting	3
ARTNM 370	Introduction to Illustration (3)	3
Total Units:		**30**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- create drawn and painted images using traditional and digital media
- research and develop visual content with an understanding of the target audience
- develop and produce visual solutions that meet the needs of a client within a deadline
- analyze and apply effective color schemes to enhance the viewer's emotional response to the content of an illustration
- research modern art and illustration history, applying concepts to illustrations to effectively communicate visually within contemporary culture
- create a portfolio that demonstrates skill with traditional and digital media and concept development

Career Information

Career opportunities include animation, character design, 3D modeling and texturing, set design, product design, as well as areas of editorial, advertising, technical, and book illustration.

ARTNM: Character Design Certificate

This certificate focuses on the visual concept development of believable characters. Skills in traditional and digital illustration are applied to create characters for animation, games, comics, graphic novels, children's books, and illustrated novels.

Certificate Requirements

Course Code	Course Title	Units
ART 300	Drawing and Composition I	3
ART 302	Drawing and Composition II	3
ART 304	Figure Drawing I	3
ARTNM 320	Facial Expression and Anatomy (3)	3
or ART 306	Facial Expression and Anatomy (3)	
ARTNM 326	Digital Painting	3
ARTNM 372	Character Design	3[1]
A minimum of 3 units from the following:		3
ART 305	Figure Drawing II (3)	
ART 375	Figure Sculpture (3)	
Total Units:		**21**

[1]ART 302 (Drawing and Composition II) with a grade of "C" or better

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- create believable characters using traditional and digital media
- research the environment, social and cultural structure, anatomy, costume and motion as they relate to a particular narrative
- create characters with believable gesture and movement that are consistent with the character concept
- analyze and apply facial expressions for the character that effectively describe the character within a narrative
- utilize references from photographs, illustration, and animation to create characters that effectively interact within their environment
- compile a portfolio that presents the process of character creation from research through final presentation

Career Information

Career opportunities include film, game, broadcast, and illustration industries.

ARTNM: Commercial Illustration Certificate

This certificate focuses on traditional visual art principles to clearly communicate the needs of a client and their target audience. It includes skill sets from both the traditional arts and digital media. Illustration skills are applied in areas of editorial, advertising, technical and book illustration, as well as 3D modeling and texturing, animation, set design, and product design.

Certificate Requirements

Course Code	Course Title	Units
ART 300	Drawing and Composition I	3
ART 304	Figure Drawing I	3
ARTNM 324	Digital Design	3
ARTNM 326	Digital Painting	3
ARTNM 328	Beginning Digital Photo Imagery	3
ARTNM 370	Introduction to Illustration (3)	3
Total Units:		**18**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- create drawn and painted images using traditional and digital media
- research and develop visual content with an understanding of the client's target audience
- develop and produce visual solutions that meet the needs of a client within a deadline
- analyze and apply color schemes to communicate a message that meets the client's needs
- research modern art and illustration history, applying concepts to illustrations to effectively communicate visually within contemporary culture
- compile a portfolio that demonstrates skill with both traditional and digital media and client based concept development

Career Information

Career opportunities include editorial, advertising, technical and book illustration, 3D modeling and texturing, animation, set design, and product design

ARTNM: Web Design Certificate

The Web Design certificate incorporates the fundamentals of visual communication with industry-standard work flow and tools to prepare creatives and talents for the web design industry. The certificate focuses on the visual language necessary for a web designer to produce compelling graphics in the web authoring environment. Students are encouraged to further their studies in interactive design by obtaining other Art New Media Certificates such as the Interactive Design Certificate, the Digital Imagery Certificate and the Video Certificate within the Art New Media department, or similar programs at a four-year college, or encouraged to choose an entry-level position in the web design industry.

Certificate Requirements

Course Code	Course Title	Units
ARTNM 303	Graphic Design: Typography	3
ARTNM 324	Digital Design	3
ARTNM 328	Beginning Digital Photo Imagery	3
ARTNM 325	Intermediate Digital Design	3
ARTNM 330	Intermediate Digital Photo Imagery	3
ARTNM 401	Introduction to Web Design	3
ARTNM 332	Digital Video	3
ARTNM 402	Intermediate Web Design	3
Total Units:		**24**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- produce compelling graphics incorporating industry-standard work flow and tools
- design visually successful web pages/web sites using visual design concepts
- evaluate content needs for target audience
- assess the most effective navigation flow
- conceive and deliver visual solutions for a client within a defined time frame

Career Information

Web design skills are used in business, government, educational institutions, and the entertainment industry.

Graphic Design: Intern Artist Certificate

This certificate introduces the software and theory used by graphic designers in the design studio. It covers page layout, vector drawing, and photo manipulation basics. It also focuses on current industry trends in the digital marketplace.

Certificate Requirements

Course Code	Course Title	Units
ARTNM 303	Graphic Design: Typography	3
ARTNM 324	Digital Design	3
ARTNM 328	Beginning Digital Photo Imagery	3
ARTNM 352	Design for Publication	3
ARTNM 359	College Magazine: Design and Production	3
ARTNM 401	Introduction to Web Design	3
ARTNM 402	Intermediate Web Design	3
Total Units:		**21**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess typographic hierarchy as it relates to message development.
- build digital files to specs required by the current industry.
- integrate different software files into one digital file.
- resolve digital production issues as they relate to industry standards.
- correlate deadline issues as they relate to production schedules.

Career Information

Students can apply their acquired skills for internship positions in graphic arts related jobs such as entry-level design positions, entry-level in-house design positions, and production artist positions. Or, with additional coursework, students can continue their studies at a qualified four-year college.

Graphic Design: Junior Artist Certificate

This certificate introduces software applications, industry-standard hardware, and the typographic/fundamental and technical skills necessary for today's workplace. It focuses on visual communication through layout design, typography, and the dynamic relationship between image and type. It meets current marketplace demands by incorporating print/non-print media and the effect new technologies have on a changing communications field.

Certificate Requirements

Course Code	Course Title	Units
ARTNM 303	Graphic Design: Typography	3
ARTNM 305	History of Graphic Design	3
ARTNM 324	Digital Design	3
ARTNM 325	Intermediate Digital Design	3
ARTNM 328	Beginning Digital Photo Imagery	3
ARTNM 330	Intermediate Digital Photo Imagery	3
ARTNM 352	Design for Publication	3
ARTNM 354	Digital Prepress	3
ARTNM 359	College Magazine: Design and Production	3
A minimum of 3 units from the following:		3
WEXP 498	Work Experience in (Subject) (0.5 - 4)	
Total Units:		**30**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze and formulate visual communication concepts using graphic design principles and standards.
- evaluate the role of typography as a communication device and know how the graphic design field fits into today's multimedia environment.
- design and produce two-dimensional media projects taking into account client needs, composition, color, and hierarchy of information.
- construct camera-ready art with industry standard graphic design software.

- evaluate problems generated by clients and execute visual concepts through research, thumbnails, roughs, design development and presentation.
- prioritize design and production deadlines for a deadline oriented industry.

Career Information

Students can apply their acquired skills in typography, software and concept development to apply for production artist or junior graphic designer positions.

Graphic Design: Production Artist Certificate

This certificate covers the process of digital production for printing and web. It focuses on the core software programs and current industry trends for digital media.

Certificate Requirements

Course Code	Course Title	Units
ARTNM 324	Digital Design	3
ARTNM 328	Beginning Digital Photo Imagery	3
ARTNM 352	Design for Publication	3
ARTNM 354	Digital Prepress	3
ARTNM 359	College Magazine: Design and Production	3
ARTNM 401	Introduction to Web Design	3
Total Units:		**18**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- investigate the basics of digital software for vector- and pixel- based media
- analyze specific conditions which influence digital production decisions
- categorize raster-based images and vector-based art as they relate to print and web
- calculate resolution, color modes and file size as they relate to print and web production
- construct a series of projects which build knowledge of simple and complex production issues

Career Information

This certificate prepares students for entry-level print or web production artist positions.

Technical Communications Certificate

This certificate offers an interdisciplinary program of courses in Technical Communications, Art/New Media, and Computer Information Systems to prepare students for a variety of technical writing and professional communication careers. The certificate includes the theory, writing skills, design background, and computer applications knowledge needed for jobs in technical communication.

Certificate Requirements

Course Code	Course Title	Units
ARTNM 352	Design for Publication (3)	2 - 3
or CISA 330	Desktop Publishing (2)	
CISA 305	Beginning Word Processing (2)	2 - 3
or BUSTEC 310	Introduction to Word/Information Processing (3)	
CISW 300	Web Publishing	3
A minimum of 3 units from the following:		3
BUS 100	English for the Professional (3)	
BUS 310	Business Communications (3)	
CISW 321	Web Site Development (3)	
Total Units:		**10 - 12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze audience information needs.
- compose concise, clearly written professional documents organized with the audiences' needs in mind.
- design print and online resources that communicate organizations' values, enhance readability, and are easy to use.
- demonstrate basic skills in the use of word processing, page design, and web design applications.
- evaluate organizations' communication goals and needs based on technical writing principles.

Career Information

Technical communicators find employment in medical, scientific, high tech, business, university, and government settings. They may write white papers, tutorials, reference and procedure manuals, help systems, user assistance video scripts, grants and proposals, and more.

Art New Media (ARTNM) Courses

ARTNM 302 Digital Basics for Art New Media

Units: 1.5

Hours: 18 hours LEC; 27 hours LAB

Prerequisite: None.

Transferable: CSU

This course is an introduction to the digital environment for Art New Media. Topics include operating system(s), digital vocabulary, scanning, saving, and file formats. Distinctions between vector, bitmap, and page layout applications are made using Adobe Illustrator, Adobe Photoshop, and Adobe InDesign.

ARTNM 303 Graphic Design: Typography

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU

This course covers the art of visual communication and introduces the tools and concepts of visual thinking. It emphasizes the potential of typography as an effective communications tool. Additionally, it also covers historical overviews, portfolio development, and client presentations, paired with the terminology and visual language of design through the creation and evaluation of individual projects.

ARTNM 305 History of Graphic Design

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course covers the history of visual communications as developed by ancient cultures through the present with an emphasis on commercial design, illustration, typographic development, and technological invention. It includes modern graphic design movements of the 20th century through the expansive media innovations of today. This course focuses primarily on analysis of design from a range of sources and cultures, with an emphasis on Europe and some attention to Asia and northern Africa.

ARTNM 320 Facial Expression and Anatomy

Same As: ART 306

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ART 300 with a grade of "C" or better

Advisory: ART 304

Transferable: CSU; UC

This course covers human facial expression and anatomy using live models, anatomical references, and imagination. This course addresses diversity: gender identities and expression, ethnicity, race, culture, age, and ability of the human form. Students explore issues of expression as it relates to skeletal and muscular anatomy through a series of projects. This course is not open to students who have taken ART 306.

ARTNM 322 Beginning Digital Art

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

C-ID: C-ID ARTS 250

This introductory digital art course focuses on digital media processes, including software and hardware tools that facilitate creative visual and conceptual approaches to digital art making. A wide range of digital imaging techniques are explored and time-based processes are introduced, leading to the creation of digital images, animations/videos, and mixed media objects. The course also explores artists' uses of new technologies in contemporary art-making practices. A vocabulary of new media terms and practices is developed through discussions and critiques.

ARTNM 324 Digital Design

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: ARTNM 303; Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340; AND ART 300 OR ART 320 and ARTNM 302

Transferable: CSU; UC

This course is an introduction to fundamental design principles using the basic tools of Adobe Illustrator. It applies design skills and the tools of the software application to produce individual
portfolio-quality projects.

ARTNM 325 Intermediate Digital Design

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTNM 324 with a grade of "C" or better

Transferable: CSU; UC

This course is a continuation of ARTNM 324. It defines advanced elements of graphic design, composition, and gestalt visual principles as they relate to dominance, hierarchy, balance, and color. These topics are combined and applied to the tools and advanced imaging capabilities of Adobe Illustrator.

ARTNM 326 Digital Painting

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: ART 300 and ARTNM 302

Transferable: CSU; UC

This course introduces the fundamental principles of color, drawing, and painting using the basic tools of industry software, like Adobe Photoshop, Krita, Procreate, Adobe Fresca, or Corel Painter. Students apply visual communication skills of color, drawing and painting to produce portfolio-quality projects.

ARTNM 328 Beginning Digital Photo Imagery

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: ART 300 and ARTNM 302

Transferable: CSU; UC

This course is an introduction to computer-based photographic imaging with emphasis on utilizing cutting edge digital imaging tools to realize design objects. Basic operating principles of Adobe Photoshop are covered. Topics include scanning, basic photo correction, selections, layer basics, adjustment layers, basic masking and channels, typography, vector drawings, and compositing. Design fundamentals are discussed. Topics include positive and negative space relationship, unity, balance, and basic color theory. Concept development is also introduced.

ARTNM 330 Intermediate Digital Photo Imagery

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTNM 328 with a grade of "C" or better

Transferable: CSU; UC

This course introduces the intermediate techniques of digital photo imagery in Adobe Photoshop. Topics include the terminology of digital photo imaging, intermediate masking, channel and curve techniques, photomontage history and techniques, intermediate black and white techniques, issues surrounding dynamic range, color correction, features of the Action and History palettes, exploration of layer blending modes, preparing files for printing and/or transferring images onto various different media, working with large format images, and commercial printers.

ARTNM 332 Digital Video

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: ARTNM 302

Transferable: CSU; UC

This course applies the principles of cinematography and editing to the production of digital video. Students employ industry standard software to capture/import, edit, and produce high-end visual productions. The course includes transitions, multiple layers, alpha channels, and composite shot segments. Students evaluate multimedia projects containing video segments in terms of design aesthetics and technical competence. This course examines the genres of documentary, short narrative film, title sequencing, and experimental film.

ARTNM 352 Design for Publication

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: ART 320 or ARTNM 310 AND ARTNM 302.

Transferable: CSU

This course introduces the basic operating principles of digital page layout software using Adobe InDesign. Principles of typography and the development of the printed page are applied to individual portfolio-quality projects. Areas of focus include book, magazine, and newspaper design, as well as

publications such as newsletters, journals, and catalogs. An overview of promotionals, such as fliers, posters, and brochures is also included.

ARTNM 354 Digital Prepress

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTNM 352 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course introduces digital prepress for graphic design using industry standard software, like Adobe InDesign. Areas of focus include desktop production for commercial offset printing, preparation of print-ready digital files, paper selection, and the language necessary to properly communicate with commercial printers.

ARTNM 358 College Magazine: Art Selection and Editing

Units: 1 - 2

Hours: 12 - 24 hours LEC; 18 - 36 hours LAB

Prerequisite: None.

Advisory: ARTH 300 and ARTNM 302

Transferable: CSU

This course provides instruction in the editing of ARC's college magazine, the American River Review, for national competitions sponsored by organizations such as the Columbia Scholastic Press Association and the Associated Collegiate Press. The course focuses on the implementation of a submission process for art work including art handling, tracking of submissions, photography for print and evaluation of submissions. It may be taken four times for credit. A portion of this course may be offered in a TBA component of 6-20 hours which may include photographing 2D and 3D artwork, scanning or photographing photographic artwork, downloading or scanning digital submissions, and production organization such as reformatting and naming files, organizing files into media groups for evaluation.

ARTNM 359 College Magazine: Design and Production

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: ARTNM 302, 324, 328, 352, or 354

Transferable: CSU

This course provides instruction in the design and production of ARCâ€™s college magazine, the American River Review, for national competitions sponsored by organizations such as the Columbia Scholastic Press Association and the Associated Collegiate Press. The course focuses on the graphic design, digital production, and printing of a literary and fine art magazine as well as the publicity, marketing, fund-raising, and distribution of the magazine. It provides the design staff a collaborative experience with the editorial staff taught by the English Department. It may be taken four times for credit.

ARTNM 370 Introduction to Illustration

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ART 300 with a grade of "C" or better

Transferable: CSU

This course is a survey of the history of illustration, defining areas of specialization and the illustrator's role in visual communication. The appropriate use of materials, tools and methods is evaluated. Illustration is analyzed as a method of visual problem solving through a series of projects with varied applications. This course is not open to students who have taken ART 314.

ARTNM 371 Comic Book Development and Structure

Units: 3

Hours: 42 hours LEC; 36 hours LAB

Course Family: Applied Drawing

Prerequisite: None.

Advisory: ARTNM 372 and 373 with grades of "C" or better

Transferable: CSU; UC

General Education: Local GE L3

The confluence of social media, pop-culture, and political issues in relation to comic book themes will be examined and implemented. This course will also review the history of comic books, deconstruct effective storytelling, and examine the basics of character development. Current story and illustration trends will be identified. Traditional as well as current methods/technologies to illustrate and self-publish will be implemented. Historical, political, and social issues affecting storytelling are examined.

ARTNM 372 Character Design

Same As: ART 317

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Applied Drawing

Prerequisite: ART 302 with a grade of "C" or better

Advisory: ART 304 and ARTNM 302

Transferable: CSU; UC

This course introduces the visual development of characters based on archetypal patterns. Topics include backstory, personality, and physical attributes. Students refine fundamental drawing skills, such as shape, form, anatomical structure, and motion. Both digital and traditional media are applied. It also covers the graphical development of characters for animation, games, comics, graphic novels, children's books, and illustrated novels. It is not open to students who have completed ART 317.

ARTNM 373 Storyboarding

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ART 300 with a grade of "C" or better

Advisory: ARTNM 372 with a grade of "C" or better

Transferable: CSU; UC

This course introduces the storyboarding process for a range of industries, from film and game entertainment to the industrial and medical industries. It includes creating artwork for the visual interpretation of scripts and provided concepts, as well as developing original ideas. In addition, students practice conceptual and drawing exercises and the cinematic rules used in the industry. Topics also include scale and camera angle, camera movement, character staging, composition, basic editing processes, creating animatics, and story reels.

ARTNM 401 Introduction to Web Design

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: ARTNM 303, 324, and 328

Transferable: CSU; UC

This course introduces technical and conceptual aspects of creating interactive visual media for screen-based delivery. It concentrates on designing standards-based web sites and applying standardized best practices to web design. This course introduces the basics of layout for visual communication by tightly integrating the design concepts with technical execution in a web environment. Students apply industry-standard authoring tools and closely examine the meaning and validity of interactivity.

ARTNM 402 Intermediate Web Design

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTNM 401 with a grade of "C" or better, or placement through the assessment process.

Transferable: CSU; UC

This course covers production and intermediate design processes for the web with an emphasis on visual design. It employs various industry standard software applications to create original graphics, control layout and type, process images, and publish professional web pages and/or sites. Students learn the processes and strategies of combining text, image, animation, video, and audio elements to create compelling visual experiences for web users.

ARTNM 404 Interactive Basics

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: ARTNM 328, ARTNM 401, or CISW 300

Transferable: CSU; UC

This course is an introduction to interaction design for the web and devices with a focus on user experience and user interface design (UX/UI). HTML, CSS, and JavaScript are used to create interactive elements and animations for web-based projects. Use of scripts, animation, and multimedia tools and processes are covered, as well as the use of forms and inputs. Stylistic concerns, content development, and design process are examined. Students create original websites focusing on integrating interactivity and animation in a meaningful way.

ARTNM 405 Digital 2D Animation

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: ART 300 and ARTNM 302

Transferable: CSU; UC

This course provides techniques for using the traditional principles of animation with industry-standard software. Students learn to animate a bouncing ball, ball with a tail, ball with legs, full body bipedal, and a face synchronized to audio. They also learn traditional animation principles through character animation like walking, running, and jumping. Students discuss technical issues, such as frame-by-frame animation (cell animation), rotoscoping, and interpolated or f-

curve animation, and apply appropriate solutions. Projects will be published using Web media, such as Artstation and Youtube.

ARTNM 406 Design for Tablets

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: ARTNM 330, 352, and 402

Transferable: CSU

This course introduces production and design processes of tablet-based media. Various industry standard software applications are employed to create compatible websites, digital documents, PDF presentations, and ePub creations. Topics include the processes and the strategies of combining text, images, animation, video, and audio elements to create compelling visual experiences for tablet-oriented mobile media.

ARTNM 420 Introduction to 3D Modeling

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: ART 320, ART 370, ARTNM 302, or ARTNM 370

Transferable: CSU

This course introduces computer-generated three-dimensional, or CG 3D, modeling using industry standard software. The primary focus of this course is modeling using polygons, surfaces, and curves to produce quality demo reel renders of the models. Objects range from simplistic primitive shapes to sophisticated models of animals and plants. Software application tools, such as Autodesk Maya and Pixologic Zbrush, are applied to produce content for use in 3D printing, film, game, fine art, broadcast, medical and industrial animation, and more.

ARTNM 421 3D Modeling and Texturing II - Character

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTNM 420 with a grade of "C" or better

Advisory: ART 375 with a grade of "C" or better

Transferable: CSU; UC

This advanced 3D modeling course builds upon the foundational skills of ARTNM 420 and guides students through industry-standard workflows used in character and creature development for games and animation. Students create high-resolution digital sculpts in ZBrush, retopologize low-poly models in Autodesk Maya, and generate normal maps and textures using Substance 3D Painter. Projects include sculpting animals, human skeletal structures, and fully realized fantasy characters based on original concept art. Emphasis is placed on accurate anatomical topology for deformation and animation, collaboration with designers, and real-time presentation in Maya. The course incorporates diverse representations of gender, ethnicity, race, culture, age, and ability in character design to reflect inclusive industry practices.

ARTNM 422 3D Animation

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTNM 405 with a grade of "C" or better

Transferable: CSU; UC

This course provides 3D animation techniques using industry standard software. It covers the traditional animation as they are applied and translated to the computer-generated 3D (CG 3D) environment and also to characters that walk, breathe, and act according to the twelve principles of animation. Topics also include weight, thought process, and the wave principle. Students get hands-on practice solving real-world challenges, including making characters walk on uneven ground, blending motion capture, and moving naturally around obstacles.

ARTNM 423 3D Modeling and Texturing III - Environment

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTNM 420 with a grade of "C" or better

Transferable: CSU; UC

This advanced course focuses on the creation of believable and narratively compelling 3D environments through sophisticated texturing and shading workflows. Students develop and apply advanced techniques in UV unwrapping, tileable texture creation, and multi-tile (UDIM) texturing using industry-standard tools such as Autodesk Maya, Maxon ZBrush, Adobe Photoshop, Substance Painter, and Sampler. Emphasis is placed on physically-based rendering (PBR), shader networks, material layering, and optimization for real-time and offline rendering. Projects include rural and urban scene development, foliage and terrain creation, and final presentation of a professional-level 3D environment. Designed for students pursuing careers in games, animation, visual effects, and digital design.

ARTNM 429 3D Rigging and Rig Building

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTNM 420 with a grade of "C" or better

Advisory: ARTNM 421 and 422

Transferable: CSU; UC

This course provides skills for the articulation of computer-generated three-dimensional, or CG 3D, objects. Projects include the creation of rigs for inanimate objects with the intent to animate, and the creation of a full body rig for bipedal and quadrupedal characters. Scripting languages and rig building tools are utilized to expedite the rigging process. 3D production issues, such as interfaces for animators, are addressed.

ARTNM 431 Short Production

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ARTNM 420, 420, or 422 with a grade of "C" or better

Transferable: CSU; UC

This course is a mixed media course combining the visual effects of 3D animation and the traditions of 2D animation. The pipeline of computer-generated three dimensional (CG 3D) art and 2D animation imagery are surveyed and practiced to create short productions that are three minutes or less. Areas of focus include a variety of real world short production scenarios, such as producing a film based on a storyboarded news article, children's book, comic strip, or a segment of a script writer's work. Storyboards from the ARTNM 373 Storyboarding course are selected and produced in this course.

ARTNM 450 Portfolio for Art New Media

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: Completion of 9 units from one Art New Media Certificate with a grade of "C" or better

Transferable: CSU

The course provides essential skills, strategies and processes involved in organizing, selecting, writing and marketing one's creative work. Topics include file organization, file accessibility and backup, research techniques, target identification, resume building, letter of interest, portfolio construction, building resumes, interview techniques, interview body language, job research, and portfolio presentation. The portfolio can be tailored for application for jobs in the creative industry, transfer to 4-year art or graphics programs, graduate schools, gallery exhibitions, artist residencies, scholarships and artist grants.

ARTNM 495 Independent Studies in Art New Media

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ARTNM 498 Work Experience in Art New Media

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Art New Media Department faculty to review specific certificate and degree work experience requirements

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of art new media. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

ARTNM 499 Experimental Offering in Art New Media

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

ASL-English Interpreting

Overview

This program provides an integrated series of coursework in American Sign Language (ASL) and ASL-English interpretation to prepare students for entry-level positions.
The series provides academic coursework based on a Deafcentered framework that encourages students to embrace an empowered collaboration with Deaf people. A foundation in ASL discourse and interpretation is established through theoretical models. Emphasis is on the practical application
of these models and knowledge in the areas of human relations, language skills, interpreting skills, cultural competence, service learning, and professionalism.

Degrees and Certificates Offered

A.A. in ASL-English Interpreter Preparation Program

ASL-English Interpreter Preparation Program Certificate

Dean: Rocio Owens

Department Chair: Erica West Oyedele

Phone: (916) 484-8653

Email: askhb-LAC@arc.losrios.edu

Associate Degree

A.A. in ASL-English Interpreter Preparation Program

This program provides an integrated series of coursework in American Sign Language (ASL) and ASL-English interpretation to prepare students for entry-level positions. The series provides academic coursework based on a Deaf-centered framework that encourages students to embrace an empowered collaboration with Deaf people. A foundation in ASL discourse and interpretation is established through theoretical models. Emphasis is on the practical application of these models and knowledge in the areas of human relations, language skills, interpreting skills, cultural competence, service learning, and professionalism.

Degree Requirements

Course Code	Course Title	Units
DEAF 318	American Sign Language V	4
DEAF 352	Introduction to American Deaf Education	3
DEAF 355	Audism and Inequality of the Deaf	3
DEAF 370	Linguistics of American Sign Language	3
INTRP 300	Ethics and Professional Standards of Interpreting	3
INTRP 301	Discourse Analysis & Translation	4
INTRP 303	Orientation to the Interpreting Profession	3
INTRP 305	Consecutive Interpreting from ASL	3
INTRP 307	Consecutive Interpreting from English	3
INTRP 310	Introduction to DeafBlind Interpreting	0.5
INTRP 314	Introduction to Multicultural Communication	0.5
INTRP 320	Simultaneous Interpreting	4
INTRP 325	Transliteration	1
INTRP 350	Service Learning for Interpreters	2
INTRP 352	Mock Interpreting I	1
INTRP 354	Mock Interpreting II	1
INTRP 356	Fieldwork in Interpretation	5
A minimum of 4 units from the following:		4
INTRP 312	Introduction to Oral Transmission (0.5)	
INTRP 330	Introduction to Educational Interpreting, K-12 (1)	

Course Code	Course Title	Units
INTRP 332	Introduction to Educational Interpreting, Post Secondary (1)	
INTRP 334	Introduction to Medical Interpreting (1)	
INTRP 336	Introduction to Performing Arts Interpreting (0.5)	
INTRP 338	Introduction to Social Services and Employment Interpreting (1)	
INTRP 340	Introduction to Relay Interpreting (0.5)	
INTRP 342	Introduction to Religious Interpreting (0.5)	
INTRP 344	Introduction to Working in Deaf/Hearing Interpreter Teams (1)	
INTRP 349	Introduction to Behavioral Health Interpreting (0.5)	
Total Units:		**48**

The ASL-English Interpreter Preparation Program Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Completion of DEAF 316: American Sign Language IV or the equivalent, with a grade of "C" or better.
- Completion of DEAF 351: Introduction to American Deaf Culture or the equivalent, with a grade of "C" or better.
- A completed pre-enrollment application.

Enrollment Process

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

- Pre-enrollment applications and deadlines for the ASL-English Interpreter Preparation Program (IPP) are available from the ARC IPP website: https://arc.losrios.edu/academics/programs-and-majors/asl-english-interpreting. The IPP currently accepts students once per year for the Fall semester which begins in August. Applications for the Fall semester are available by February 15th and priority consideration is given to applications received by the first Friday in April.
- Only qualified applicants who meet the educational requirements and follow the pre-enrollment procedures will be considered for the program. Meeting all these requirements does not guarantee acceptance into the program.
- Upon completion and acceptance of the pre-enrollment application, students will participate in an interview/screening process conducted by the Interpreter Preparation Program. Should the number of qualified applicants exceed available space in the program, selection will be based on the rankings from the interview/screening process.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- discuss and apply knowledge of linguistic, cross-cultural, and interpretation theories.
- demonstrate communicative competency in English and in ASL through effective communication in a variety of settings with Deaf and hearing participants of varying age, gender, and ethnicity.
- appraise, identify, and apply personal, professional, and ethical decisions in a manner consistent with theoretical models and standard professional practices that align in service with the goal of the setting and Deaf and hearing participants.
- demonstrate interpersonal competencies that foster effective communication and productive collaboration with colleagues, Deaf and hearing consumers, employers, and team members in an interpreting context.
- formulate effective interpretations both consecutively and simultaneously following a practice profession framework.
- develop an on-going professional action plan integrating interactions with Deaf related organizations, connections with interpreter employers, and the implications of certification on the provision of interpreting.

Career Information

American Sign Language-English interpreters are in demand locally, regionally, and nationally. A qualified American Sign Language-English interpreter enjoys a rewarding, highly flexible career. This field is expanding; growth in the job market is projected.

Certificate of Achievement

ASL-English Interpreter Preparation Program Certificate

This program provides an integrated series of coursework in American Sign Language (ASL) and ASL-English interpretation to prepare students for entry-level positions. The series provides academic coursework based on a Deaf-centered framework that encourages students to embrace an empowered collaboration with Deaf people. A foundation in

ASL discourse and interpretation is established through theoretical models. Emphasis is on the practical application of these models and knowledge in the areas of human relations, language skills, interpreting skills, cultural competence, service learning, and professionalism.

Certificate Requirements

Course Code	Course Title	Units
DEAF 318	American Sign Language V	4
DEAF 352	Introduction to American Deaf Education	3
DEAF 355	Audism and Inequality of the Deaf	3
DEAF 370	Linguistics of American Sign Language	3
INTRP 300	Ethics and Professional Standards of Interpreting	3
INTRP 301	Discourse Analysis & Translation	4
INTRP 303	Orientation to the Interpreting Profession	3
INTRP 305	Consecutive Interpreting from ASL	3
INTRP 307	Consecutive Interpreting from English	3
INTRP 310	Introduction to DeafBlind Interpreting	0.5
INTRP 314	Introduction to Multicultural Communication	0.5
INTRP 320	Simultaneous Interpreting	4
INTRP 325	Transliteration	1
INTRP 350	Service Learning for Interpreters	2
INTRP 352	Mock Interpreting I	1
INTRP 354	Mock Interpreting II	1
INTRP 356	Fieldwork in Interpretation	5
A minimum of 4 units from the following:		4
INTRP 312	Introduction to Oral Transmission (0.5)	
INTRP 330	Introduction to Educational Interpreting, K-12 (1)	
INTRP 332	Introduction to Educational Interpreting, Post Secondary (1)	
INTRP 334	Introduction to Medical Interpreting (1)	
INTRP 336	Introduction to Performing Arts Interpreting (0.5)	
INTRP 338	Introduction to Social Services and Employment Interpreting (1)	
INTRP 340	Introduction to Relay Interpreting (0.5)	
INTRP 342	Introduction to Religious Interpreting (0.5)	
INTRP 344	Introduction to Working in Deaf/Hearing Interpreter Teams (1)	
INTRP 349	Introduction to Behavioral Health Interpreting (0.5)	
Total Units:		**48**

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Upon completion of this program, the student will be able to:

- discuss and apply knowledge of linguistic, cross-cultural, and interpretation theories.
- demonstrate communicative competency in English and in ASL through effective communication in a variety of settings with Deaf and hearing participants of varying age, gender, and ethnicity.
- appraise, identify, and apply personal, professional, and ethical decisions in a manner consistent with theoretical models and standard professional practices that align in service with the goal of the setting and Deaf and hearing participants.
- demonstrate interpersonal competencies that foster effective communication and productive collaboration with colleagues, Deaf and hearing participants, employers, and team members in an interpreting context.

- formulate effective interpretations both consecutively and simultaneously following a practice profession framework.
- develop an on-going professional action plan integrating interactions with Deaf related organizations, connections with interpreter employers, and the implications of certification on the provision of interpreting.

Career Information

American Sign Language-English interpreters are in demand locally, regionally, and nationally. A qualified American Sign Language/English interpreter enjoys a rewarding, highly flexible career. This field is expanding; growth in the job market is projected.

ASL-English Interpreting (INTRP) Courses

INTRP 100 Language Support Lab

Units: 0.5 - 1

Hours: 27 - 54 hours LAB

Prerequisite: None.

Corequisite: DEAF 310, 312, 314, 316, or 318, or placement through the assessment process.

Enrollment Limitation: Students enrolling in this course must show proof of current or previous enrollment in DEAF 310, 312, 314, 316, 318 or equivalent.

This laboratory course enables aspiring American Sign Language (ASL) interpreting students and students who want to improve their ASL fluency to develop, expand, and reinforce multiple ASL discourse skills while working independently and/or in small groups. This is not a language acquisition course but one that supports and extends skills that have previously been taught. Coursework includes study topics related to fluency in vocabulary, grammatical structure, and applying cultural conversation norms with the support of a Deaf mentor. Students may register until the sixth week of the semester. If taken as a .5-unit course, this course may be taken up to 2 times, for a total of 1.0 unit, using different topics, or once for 1.0 unit. Pass/No Pass only.

INTRP 101 ASL-English Interpreting Support Lab

Units: 0.5 - 1

Hours: 27 - 54 hours LAB

Prerequisite: None.

Corequisite: INTRP 301, 305, 307, and 320

Enrollment Limitation: Students enrolled in this course must show proof of current or previous enrollment in INTRP 301, 305, 307, 320 or equivalent.

This laboratory course enables aspiring American Sign Language (ASL) interpreting students to improve their information processing and to develop, expand, and reinforce multiple interpreting skills while working independently and/or in small groups. This course does not teach theoretical and practical frameworks related to ASL-English interpreting but supports and extends skills and concepts that have previously been taught. Coursework includes study topics related to discourse analysis, conversational signals, prosodic features, register variation, message analysis, and meaning transfer. Students may register until the sixth week of the semester. If taken as a .5-unit course, this course may be taken up to 2 times, for a total of 1.0 unit, using different topics, or once for 1.0 unit. Pass/No Pass only.

INTRP 300 Ethics and Professional Standards of Interpreting

Units: 3

Hours: 54 hours LEC

Prerequisite: INTRP 303 and 305 with grades of "C" or better

Transferable: CSU

This course provides an exploration of personal ethics and values, the Registry of Interpreters for the Deaf (RID) Code of Professional Conduct, and interpersonal relations as they relate to professional and ethical decision-making. Emphasis is on professional integrity, managing personal and professional behaviors, and conflict resolution for interpreters.

INTRP 301 Discourse Analysis & Translation

Units: 4

Hours: 68 hours LEC; 12 hours LAB

Prerequisite: None.

Enrollment Limitation: Acceptance into the Interpreter Preparation Program through a pre-enrollment application and interview/screening process.

Transferable: CSU

This course provides a foundation in discourse analysis and an introduction to translation with a focus on understanding the context, intentions, and cultural norms used during various communication events. Topics include conversational signals, prosodic features, register variation, message analysis, and message transfer and translation.

INTRP 303 Orientation to the Interpreting Profession

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Enrollment Limitation: Acceptance into the Interpreter Preparation Program through a pre-enrollment application and interview/screening process.

Advisory: INTRP 309

Transferable: CSU

This course provides a working knowledge of the interpreting profession. Topics include the history of the interpreting field, personal and professional demands, laws and regulations, certification and evaluation standards, extra linguistic knowledge, and the employment environment. Career-long learning, self-awareness, and intrapersonal and interpersonal skills are explored during this course.

INTRP 305 Consecutive Interpreting from ASL

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: INTRP 301 and 303 with grades of "C" or better

Corequisite: INTRP 307

Transferable: CSU

This course provides basic skills in translation and consecutive interpreting from American Sign Language (ASL). Topics include a theoretical analysis of the interpreting process, application of academic and world knowledge, and an introduction to fundamental interpreting skills and techniques for professional interactions.

INTRP 307 Consecutive Interpreting from English

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: INTRP 301 and 303 with grades of "C" or better

Corequisite: INTRP 305

Transferable: CSU

This course provides basic skills in translation and consecutive interpreting from English. Topics include a theoretical analysis of the interpreting process, application of academic and world knowledge, and an introduction to fundamental interpreting skills and techniques for professional interactions.

INTRP 309 Introduction to the Interpreting Profession

Units: 0.5

Hours: 9 hours LEC

Prerequisite: DEAF 310 with a grade of "C" or better

Transferable: CSU

This course introduces general information about the field of American Sign Language (ASL)/English interpretation. Topics include regulations, certification and educational requirements, fundamental and requisite skills, the Code of Professional Conduct, and pay scale and job opportunities in the field of ASL/English interpretation. An overview of the Interpreter Preparation Program at American River College and introductory interpreting practice is incorporated. Pass/No Pass only. This course is formerly known as SILA 362 and DEAF 390.

INTRP 310 Introduction to DeafBlind Interpreting

Units: 0.5

Hours: 9 hours LEC

Prerequisite: INTRP 300 with a grade of "C" or better

Transferable: CSU

This course provides an orientation to the DeafBlind community. Topics include modes of DeafBlind interpreting, modifications to the interpreting models, and additional responsibilities when interacting with DeafBlind individuals.

INTRP 312 Introduction to Oral Transmission

Units: 0.5

Hours: 9 hours LEC

Prerequisite: INTRP 303 with a grade of "C" or better

Transferable: CSU

This course provides exposure to, background in, and techniques for oral transmission and interaction with oral Deaf people. Topics include speech reading skills, articulation, and support techniques.

INTRP 314 Introduction to Multicultural Communication

Units: 0.5

Hours: 9 hours LEC

Prerequisite: INTRP 301 with a grade of "C" or better

Advisory: INTRP 305 and 307

Transferable: CSU

This course focuses on the field of multicultural communication. It emphasizes cultural and linguistic diversity, and personal life experiences within the Deaf community. This course also covers enhancing racial and ethnic diversity in the interpreting profession.

INTRP 320 Simultaneous Interpreting

Units: 4

Hours: 72 hours LEC

Prerequisite: INTRP 305 and 307 with grades of "C" or better

Transferable: CSU

This course provides intermediate knowledge and skill development in the area of simultaneous interpreting. Both American Sign Language (ASL) to English and English to ASL interpreting skills are incorporated. Topics include an application of the interpreting process, a focus on analytical and composition skills, incorporation of cultural considerations, and team interpreting.

INTRP 325 Transliteration

Units: 1

Hours: 18 hours LEC

Prerequisite: INTRP 301 with a grade of "C" or better

Transferable: CSU

This course provides basic skills in transliteration. It incorporates literal to idiomatic transliteration skills. Topics include assessment of consumer preferences, contact signing forms, semantic appropriateness, syntactic considerations, use of ASL features, and mouth movements to convey English.

INTRP 330 Introduction to Educational Interpreting, K-12

Units: 1

Hours: 18 hours LEC

Prerequisite: INTRP 305 with a grade of "C" or better

Transferable: CSU

This course introduces interpreting in the educational setting with a focus on the elementary and secondary levels of education. Emphasis is on vocabulary development and enrichment specific to educational interpreting, resource development, team building, ethical roles and responsibilities, communicating with children and marginalized populations, and power dynamics within the interpreting process.

INTRP 332 Introduction to Educational Interpreting, Post Secondary

Units: 1

Hours: 18 hours LEC

Prerequisite: INTRP 305 and 307 with grades of "C" or better

Transferable: CSU

This course is an introduction to interpreting in post-secondary educational settings. Language development and enrichment, resource development, and team building, all specific to interpreting in a wide variety of post-secondary educational settings are examined while emphasizing the roles and responsibilities of the interpreter as an equitable practitioner. The application of an ethical framework to identify the constellation of demands and controls specific to the post-secondary educational setting will be explored.

INTRP 334 Introduction to Medical Interpreting

Units: 1

Hours: 18 hours LEC

Prerequisite: INTRP 305 and 307 with grades of "C" or better

Transferable: CSU

This course is an introduction to interpreting in the medical setting. Logistics, role and ethics, and the impact of culture and language use are considered.

INTRP 336 Introduction to Performing Arts Interpreting

Units: 0.5

Hours: 9 hours LEC

Prerequisite: INTRP 305 and 307 with grades of "C" or better

Transferable: CSU

This course is an introduction to interpreting in the performing arts setting. Character development, the function of space in American Sign Language (ASL), environmental considerations, team collaboration, and interpretation are considered.

INTRP 338 Introduction to Social Services and Employment Interpreting

Units: 1

Hours: 18 hours LEC

Prerequisite: INTRP 305 and 307 with grades of "C" or better

Transferable: CSU

This course is an introduction to interpreting in social services and employment settings. Environmental considerations, interpretation, resource building, teamwork, and ethics are considered.

INTRP 340 Introduction to Relay Interpreting

Units: 0.5

Hours: 9 hours LEC

Prerequisite: INTRP 305 and 307 with grades of "C" or better

Transferable: CSU

This course is an introduction to relay interpreting. Students will develop skills with an understanding of environmental considerations, vocabulary development, resource building, video relay and telephone processes, etiquette, ethics, and regulations.

INTRP 342 Introduction to Religious Interpreting

Units: 0.5

Hours: 9 hours LEC

Prerequisite: INTRP 305 and 307 with grades of "C" or better

Transferable: CSU

This course is an introduction to interpreting in the religious setting. Environmental considerations, vocabulary development, resource building, introductory knowledge, cultural considerations, and ethics are covered.

INTRP 344 Introduction to Working in Deaf/Hearing Interpreter Teams

Units: 1

Hours: 18 hours LEC

Prerequisite: INTRP 305 and 307 with grades of "C" or better

Transferable: CSU

This course is an introduction to working in Deaf/hearing interpreter teams. Topics include: language and communication variation; specialized skills of the CDI; explanation of the role, function, and process of Deaf/hearing teams; and an introduction to the conjoint work involved in the collaborative interpreting process.

INTRP 349 Introduction to Behavioral Health Interpreting

Units: 0.5

Hours: 9 hours LEC

Prerequisite: INTRP 303 with a grade of "C" or better

Transferable: CSU

This course provides an introduction to interpreting in behavioral health settings. It covers signs used by Deaf people related to sex, alcohol, and drug abuse and resources available to Deaf people including Deaf Hope, Deaf Safe, and sobriety meetings. The course also addresses methods for assessing one's capacity for interpreting equitably and ethically in these situations.

INTRP 350 Service Learning for Interpreters

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

Corequisite: INTRP 301

Enrollment Limitation: Acceptance into the ASL-English Interpreting program through a pre-enrollment application and interview/screening process.

Transferable: CSU

This course provides an opportunity to collaborate to build relationships with the Deaf community. Topics include aligning goals and values of the Deaf community through a reciprocal, respectful, and mutually rewarding partnership, resulting in progress toward the Deaf community's goals and enhanced learning of the responsibilities between future practitioners and the communities in which they work. A portion of this course may be offered in a TBA component of 27 hours which will include service learning placement. Placement sites are pre-selected by the instructor.

INTRP 352 Mock Interpreting I

Units: 1

Hours: 18 hours LEC

Prerequisite: INTRP 305 and 307 with grades of "C" or better

Transferable: CSU

This course provides an opportunity to interpret for live or taped presenters. Focus is on application of text analysis, assignment preparation, team interpreting, and information processing.

INTRP 354 Mock Interpreting II

Units: 1

Hours: 4.5 hours LEC; 40.5 hours LAB

Prerequisite: INTRP 300 and 352 with grades of "C" or better

Corequisite: INTRP 356

Transferable: CSU

This course provides an opportunity to interpret for a variety of mock interpreting scenarios. The focus is on the application of text analysis, assignment preparation, information processing, the role of the educational interpreter, and giving and receiving feedback.
A portion of this course may be offered in a TBA component of 40.5 hours which may include preparation for and interpreting in mock interpreting settings.

INTRP 356 Fieldwork in Interpretation

Units: 5

Hours: 54 hours LEC; 108 hours LAB

Prerequisite: INTRP 300 and 320 with grades of "C" or better

Transferable: CSU

This course provides an opportunity to apply academic learning to real-world practice in interpreting. It also provides an opportunity to take one of the national evaluation system examinations. A portion of this course may be offered in a TBA component of 108 hours that may include observation of interpreters and individual and team interpreting practice.

INTRP 495 Independent Studies in Sign Language Studies - Interpreting

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

INTRP 499 Experimental Offering in Sign Language Studies - Interpreting

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Astronomy

Overview

Astronomy is part of the general education program at American River College. The astronomy course offerings include Introduction to Astronomy, The Solar System, Stars/Galaxies/Cosmology, Introduction to Astrobiology, Honors Introduction to Astronomy, Independent Studies in Astronomy, and an Astronomy Laboratory. All courses comply with general education transfer requirements.

Degrees Offered

A.S. in General Science

Dean: Joel Keebler

Phone: (916) 484-8107

Email: askhb-STEM@arc.losrios.edu

Associate Degree

A.S. in General Science

This program provides a broad study in the fields of biological and physical sciences in preparation for transfer to a four-year program and continuation of studies in upper division science courses.

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18[1]
Physical Science Courses		
ASTR C1001	Introduction to Astronomy (3)	
ASTR 310	The Solar System (3)	
ASTR 320	Stars, Galaxies, and Cosmology (3)	
ASTR 330	Introduction to Astrobiology (3)	
ASTR C1001L	Introduction to Astronomy Lab (1)	
ASTR 481	Honors Astronomy: Stars, Galaxies, and Cosmology (4)	
ASTR 495	Independent Studies in Astronomy (1 - 3)	
ASTR 499	Experimental Offering in Astronomy (0.5 - 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 310	Chemical Calculations (4)	
CHEM 338	Chemistry In Your World (3)	
CHEM 400	General Chemistry I (5)	
CHEM 401	General Chemistry II (5)	
CHEM 420	Organic Chemistry I (5)	
CHEM 421	Organic Chemistry II (5)	
CHEM 423	Organic Chemistry - Short Survey (5)	
CHEM 495	Independent Studies in Chemistry (1 - 3)	
CHEM 499	Experimental Offering in Chemistry (0.5 - 4)	
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)	
GEOG 307	Environmental Hazards and Natural Disasters (3)	
GEOG 308	Introduction to Oceanography (3)	
GEOG 309	Introduction to Oceanography Lab (1)	
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 495	Independent Studies in Geography (1 - 3)	
GEOG 499	Experimental Offering in Geography (0.5 - 4)	
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)	
GEOL 320	Global Climate Change (3)	
GEOL 325	Environmental Hazards and Natural Disasters (3)	
GEOL 330	Introduction to Oceanography (3)	
GEOL 331	Introduction to Oceanography Lab (1)	
GEOL 345	Geology of California (3)	

Course Code	Course Title	Units
GEOL 392	Field Studies in Mountain Landscapes (1 - 4)	
GEOL 393	Field Studies in Coastal Landscapes (1 - 4)	
GEOL 394	Field Studies in Volcanic Landscapes (1 - 4)	
GEOL 495	Independent Studies in Geology (1 - 3)	
GEOL 499	Experimental Offering in Geology (0.5 - 4)	
PHYS 310	Conceptual Physics (3)	
PHYS 311	Basic Physics (3)	
PHYS 312	Conceptual Physics Laboratory (1)	
PHYS 350	General Physics (4)	
PHYS 360	General Physics (4)	
PHYS 410	Mechanics of Solids and Fluids (5)	
PHYS 421	Electricity and Magnetism (4)	
PHYS 431	Heat, Waves, Light and Modern Physics (4)	
PHYS 495	Independent Studies in Physics (1 - 3)	
PHYS 499	Experimental Offering in Physics (0.5 - 4)	
Biological Science Courses		
ANTH 300	Biological Anthropology (3)	
ANTH 301	Biological Anthropology Laboratory (1)	
ANTH 303	Introduction to Forensic Anthropology (3)	
ANTH 370	Primatology (3)	
ANTH 480	Honors Biological Anthropology (3)	
ANTH 495	Independent Studies in Anthropology (1 - 3)	
ANTH 499	Experimental Offering in Anthropology (0.5 - 4)	
BIOL 300	The Foundations of Biology (3)	
BIOL 301	Evolution (3)	
BIOL C1000	Introduction to Biology with Lab (4)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
BIOL 305	Natural History (4)	
BIOL 310	General Biology (4)	
BIOL 322	Ethnobotany (3)	
BIOL 332	Introduction to Ornithology (4)	
BIOL 342	The New Plagues: New and Ancient Infectious Diseases Threatening World Health (3)	
BIOL 352	Conservation Biology (3)	
BIOL 370	Marine Biology (4)	
BIOL 375	Marine Ecology (3)	
BIOL 390	Natural History Field Study (0.5 - 4)	
BIOL 400	Principles of Biology (5)	
BIOL 410	Principles of Botany (5)	
BIOL 415	Introduction to Biology: Biodiversity, Evolution, and Ecology (5)	
BIOL 420	Principles of Zoology (5)	
BIOL 430	Anatomy and Physiology (5)	
BIOL 431	Anatomy and Physiology (5)	
BIOL 440	General Microbiology (4)	
BIOL 442	General Microbiology and Public Health (5)	
BIOL 482	Honors Marine Biology (4)	
BIOL 495	Independent Studies in Biology (1 - 3)	
BIOL 499	Experimental Offering in Biology (0.5 - 4)	
BIOT 301	Biotechnology and Human Health (3)	
BIOT 305	Introduction to Bioinformatics (1)	
BIOT 307	Biotechnology and Society (2)	
BIOT 311	Biotechnology Laboratory Methods - Molecular Techniques (2)	

Course Code	Course Title	Units
BIOT 312	Biotechnology Laboratory Methods - Microbial and Cell Culture Techniques (2)	
BIOT 499	Experimental Offering in Biology (0.5 - 4)	
NATR 300	Introduction to Natural Resource Conservation and Policy (4)	
NATR 301	Introduction to Ornithology (4)	
NATR 302	Introduction to Wildlife Biology (4)	
NATR 303	Energy and Sustainability (3)	
NATR 304	The Forest Environment (3)	
NATR 305	Fisheries Ecology and Management (4)	
NATR 306	Introduction to Rangeland Ecology and Management (4)	
NATR 307	Principles of Sustainability (4)	
NATR 310	Study Design and Field Methods (4)	
NATR 320	Principles of Ecology (4)	
NATR 322	Environmental Restoration (3)	
NATR 324	Field Studies: Birds and Plants of the High Sierra (2)	
NATR 330	Native Trees and Shrubs of California (4)	
NATR 332	Wildflowers of California (4)	
NATR 346	Water Resources and Conservation (3)	
NATR 495	Independent Studies in Natural Resources (1 - 3)	
NATR 499	Experimental Offering in Natural Resources (0.5 - 4)	
PSYC 310	Biological Psychology (3)	
PSYC 311	Biological Psychology Laboratory (1)	
Total Units:		**18**

[1]must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science

The General Science Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate new and accepted ideas about the natural universe using scientific methods.
- analyze a wide variety of natural phenomena using basic definitions and fundamental theories of biological or physical sciences.
- apply appropriate quantitative and qualitative methods to interpret and analyze pertinent data.
- outline the basic concepts and fundamental theories of a natural science.
- articulate orally and/or in writing the importance of continuous examination and modification of accepted ideas as a fundamental element in the progress of science.
- discuss ethical components of scientific decision making and apply personal and social values within the process of decision making in scientific endeavors.

Astronomy (ASTR) Courses

ASTR C1001 Introduction to Astronomy

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

This course was formerly known as ASTR 300 Introduction to Astronomy.

This course introduces fundamental concepts of astronomy, including the Solar System, stars,
supernovae, galaxies, black holes, and the expanding universe. Students learn how to study the
cosmos and what the latest discoveries reveal about the origins and fate of the universe. This course covers topics in modern planetary and stellar astronomy, such as dwarf, jovian, terrestrial, and extrasolar planets and the life cycle of stars, black holes, and supernovae. It also includes topics on cosmology and galactic astronomy, such as dark matter, dark energy, the Big Bang, and the expansion of the Universe.

This course was formerly known as ASTR 300 and is not open to students who have successfully completed ASTR 300.

ASTR 310 The Solar System

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Algebra I/Integrated Math 1 or Beginning Algebra; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

This course explores the nature and evolution of the solar system. Topics include the night-time sky, the history of astronomy, the tools of astronomy, and the origins and characteristics of planets, their satellites, and other components of the solar system. It emphasizes how astronomers gain and refine their knowledge of the Universe and interpret the latest results of planetary exploration.

ASTR 320 Stars, Galaxies, and Cosmology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Algebra I/Integrated Math 1 or Beginning Algebra; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

This course explores the nature and evolution of stars, galaxies, and the Universe. Topics include the history of astronomy, the tools of astronomy, star classification, stellar evolution, neutron stars, black holes, and the Big Bang. It emphasizes how astronomers gain and refine their knowledge of the Universe and interpret the latest results of space exploration.

ASTR 330 Introduction to Astrobiology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Algebra I/Integrated Math 1 or Beginning Algebra; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

This course explores the possibilities of life beyond Earth and what we can learn from terrestrial life forms surviving in extreme conditions. Topics include the origin, biology, and evolution of life on Earth, habitability and interior energy sources of Earth and other planets in the solar system, the likelihood of life existing on other planets or moons within our solar system, attempts to locate life within our solar system, and attempts to communicate with intelligent life in other parts of the galaxy.

ASTR C1001L Introduction to Astronomy Lab

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Corequisite: Completion of or concurrent enrollment in ASTR C1001 or other locally approved astronomy lecture course

Transferable: CSU; UC

General Education: Cal-GETC Area 5C

This course was formerly known as ASTR 400 Astronomy Laboratory.

This laboratory course reinforces fundamental principles and concepts of astronomy by applying
the scientific method through experiments, observations, and/or simulations. It provides access to telescopes, covering their practical use for visual observation of astronomical objects and the analysis of astronomical data. Topics may include constellation identification, stellar spectroscopy, solar and lunar observations, radio-physics and radio-astronomy, image analysis, measuring the properties of stars, and determining the age of the Universe. Night-time on-campus field trips may be required.

This course was formerly known as ASTR 400 and is not open to students who have successfully completed ASTR 400. Students may satisfy the corequisite for the course using ASTR C1001, ASTR 310, ASTR 320 or ASTR 330.

ASTR 481 Honors Astronomy: Stars, Galaxies, and Cosmology

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: Placement into ENGL C1000H (formerly ENGWR 480) through the Los Rios placement process OR guided self-placement.

Transferable: CSU; UC (UC Credit limitation: ASTR 320 and 481 combined: maximum credit, 1 course)

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

This seminar-style course is an in-depth introduction to astronomy, focusing on stars, galaxies, and cosmology. It approaches current topics in astronomy through discussions and laboratory activities, with an emphasis on critical thinking, problem-solving techniques, and conceptual reasoning. This course is not open to students who have completed ASTR 320.

ASTR 495 Independent Studies in Astronomy

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ASTR 499 Experimental Offering in Astronomy

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Automotive Collision Technology

Overview

This degree or certificate provides an extended combination of classroom and hands-on shop experience to prepare for careers in all phases of automotive collision technology.

Topics include component repairs, structural and nonstructural repairs, and refinishing. It also covers various automotive systems, such as heating and air-conditioning, suspension steering, and electrical.

Degrees and Certificates Offered

A.S. in Automotive Collision Technology

Automotive Claims Estimator Certificate

Automotive Collision Technology Certificate

Automotive Collision Technology-Refinish Certificate

Automotive Collision Technology-Structural Certificate

Automotive Collision Technology-Non-Structural Certificate

Dean: Jon Wedding

Department Chair: Galen Hartman

Phone: (916) 484-8588

Email: MCT@arc.losrios.edu

Associate Degree

A.S. in Automotive Collision Technology

This degree provides an extended combination of classroom and hands-on shop experience to prepare for careers in all phases of automotive collision technology. Topics include component repairs, structural and non-structural repairs and refinishing. It also covers various automotive systems, such as heating and air-conditioning, suspension steering, and electrical.

Degree Requirements

Course Code	Course Title	Units
ACT 100	Automotive Collision Basics	4
ACT 110	Component Repairs	4
ACT 120	Non-Structural Repair	4
ACT 130	Structural Repair	4
ACT 131	Automotive Collision Welding	4
ACT 140	Automotive Refinishing	4
ACT 161	Automotive Collision Software Systems, Estimating I	4
AT 100	Technical Basics for the Automotive Professional	3
AT 105	Mathematics for Automotive Technology	3
AT 180	Automotive Data Acquisition	3
AT 310	Heating and Air-Conditioning Systems	3
AT 311	Suspension and Steering Systems	3
AT 330	Automotive Electrical Systems	3
A minimum of 4 units from the following:		4
ACT 298	Work Experience in Collision Technology (0.5 - 4)	

Course Code	Course Title	Units
Total Units:		**50**

The Automotive Collision Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and estimate automotive collision damage.
- develop a repair plan.
- repair automotive collision mechanical damage.
- repair frame/unibody automotive collision structural damage.
- repair automotive collision body damage.
- refinish automotive collision damage.

Career Information

This program provides training and hands-on experience in high-demand skills that lead to promising careers with high wages. Students who have successfully completed this program are working as non-structural, structural, refinish and estimating technicians. The U.S. Labor Department reports that job opportunities for auto collision specialists are excellent because of the large number of older workers who are expected to retire in the next 5 to 10 years. In addition, it points out that experienced technicians are rarely laid off and that employers prefer to hire graduates of a formal training program for which provides a foundation in the latest collision technology, including the techniques and equipment used on the job.

Certificates of Achievement

Automotive Claims Estimator Certificate

This program provides the technical and practical skills necessary to properly diagnose collision-damaged vehicles and to document the cost and time necessary to repair collision-damaged vehicles. The use of state-of-the-art, computer-generated estimating programs and video imaging are used to prepare itemized estimates on collision-damaged vehicles. The procedures to prepare itemized estimates detailing the required procedures and parts necessary to correctly repair the vehicle are also covered.

Certificate Requirements

Course Code	Course Title	Units
ACT 100	Automotive Collision Basics	4
ACT 110	Component Repairs	4
ACT 120	Non-Structural Repair	4
ACT 161	Automotive Collision Software Systems, Estimating I	4
BUS 212	Marketing for Small Businesses	1
BUS 218	Management Skills for the Small Business	1
BUS 224	Customer Service	1
BUSTEC 300.1	Keyboarding/Applications: Beginning	1[1]
Total Units:		**20**

[1]Keyboard proficiency test. This program can be completed in 19 units if student passes keyboarding test.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- complete an accurate repair estimate.
- apply technical skills necessary to remove, replace and align damaged cosmetic and mechanical related components.
- recognize and identify direct, indirect and secondary damage on collision-damaged vehicles.
- create a marketing plan for a small business utilizing appropriate data.
- analyze the four functions of management: planning, organizing, directing, and evaluating.
- demonstrate methods for building effective customer service teams.
- create and edit documents using appropriate word processing functions.

Career Information

This program provides training and hands-on experience in high-demand skills that lead to promising careers with high wages. The U.S. Labor Department reports that job opportunities for auto collision specialists are excellent because of the large number of older workers who are expected to retire in the next 5 to 10 years. In addition, it points out that experienced technicians are rarely laid off and that employers prefer to hire graduates of a formal training program because it provides a foundation in the latest collision technology, including the techniques and equipment used on the job.

Automotive Collision Technology Certificate

This program provides a combination of classroom and hands-on shop experience to prepare for careers in all phases of automotive collision technology repair. Topics include component repairs, structural and non-structural repairs and refinish. It also covers various automotive systems, such as heating and air-conditioning, suspension steering, and electrical.

Certificate Requirements

Course Code	Course Title	Units
ACT 100	Automotive Collision Basics	4
ACT 110	Component Repairs	4
ACT 120	Non-Structural Repair	4
ACT 130	Structural Repair	4
ACT 131	Automotive Collision Welding	4
ACT 140	Automotive Refinishing	4
ACT 161	Automotive Collision Software Systems, Estimating I	4
AT 100	Technical Basics for the Automotive Professional	3
AT 105	Mathematics for Automotive Technology	3
AT 180	Automotive Data Acquisition	3
AT 310	Heating and Air-Conditioning Systems	3
AT 311	Suspension and Steering Systems	3
AT 330	Automotive Electrical Systems	3
A minimum of 4 units from the following:		4
ACT 298	Work Experience in Collision Technology (0.5 - 4)	
Total Units:		**50**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and estimate automotive collision damage
- repair automotive collision mechanical damage
- repair frame/unibody automotive collision structural damage
- repair automotive collision body damage
- refinish automotive collision damage

Career Information

This program provides training and hands-on experience in high-demand skills that lead to promising careers with high wages. Students who have successfully completed this program are working as apprentice shop technicians. The U.S. Labor Department reports that job opportunities for auto collision specialists are excellent because of the large number of older workers who are expected to retire in the next 5 to 10 years. In addition, it points out that experienced technicians are rarely laid off and that employers prefer to hire graduates of a formal training program because it provides a foundation in the latest collision technology, including the techniques and equipment used on the job.

Automotive Collision Technology-Refinish Certificate

This program provides a combination of classroom and hands-on shop experience to prepare for a career in automotive collision technology refinishing. Topics include component repair, non-structural repairs, and refinishing. This certificate is intended for students who are interested in exploring the field of Automotive Collision Refinish.

Certificate Requirements

Course Code	Course Title	Units
ACT 100	Automotive Collision Basics	4
ACT 110	Component Repairs	4
ACT 120	Non-Structural Repair	4
ACT 140	Automotive Refinishing	4
Total Units:		**16**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify color matching and solutions
- apply color blending procedures including application
- apply paint material with proficiency
- polish repaired surface to factory finish
- prepare surface in all application phases
- remove and install adjacent parts for quality refinishing preparation

Career Information

This program provides training and hands-on experience in high-demand skills that lead to promising careers with high wages. Students who have successfully completed this program are qualified candidates for refinishing apprenticeships. The U.S. Labor Department reports that job opportunities for auto collision specialists are excellent because of the large number of older workers who are expected to retire in the next 5 to 10 years. In addition, it points out that experienced technicians are rarely laid off and that employers prefer to hire graduates or a formal training

program because it provides a foundation in the latest collision technology, including the techniques and equipment used on the job.

Automotive Collision Technology-Structural Certificate

This program provides a combination of classroom and hands-on shop experience to prepare for a career in automotive collision structural repairs. This certificate is intended for students who have completed the Automotive Collision Technology Certificate and need to obtain a higher skill level in the field.

Certificate Requirements

Course Code	Course Title	Units
ACT 100	Automotive Collision Basics	4
ACT 110	Component Repairs	4
ACT 130	Structural Repair	4
ACT 131	Automotive Collision Welding	4
Total Units:		**16**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify structural damage.
- mount and measure vehicles.
- pull and square damaged structural areas.
- perform collision related welding of sheet steel.
- remove and install components.

Career Information

This program provides training and hands-on experience in high-demand skills that lead to promising careers with high wages. Students who have successfully completed this program are working as frame/unibody technicians. The U.S. Labor Department reports that job opportunities for auto collision specialists are excellent because of the large number of older workers who are expected to retire in the next 5 to 10 years. In addition, it points out that experienced technicians are rarely laid off and that employers prefer to hire graduates of a formal training program because it provides a foundation in the latest collision technology, including the techniques and equipment used on the job.

Certificate

Automotive Collision Technology-Non-Structural Certificate

This certificate provides a combination of classroom and hands-on experience to prepare for careers in non-structural automotive collision technology. Topics include automotive collision basic, component and non-structural repairs. This certificate is intended for students who have completed the Automotive Collision Technology Certificate and need to obtain a higher skill level to obtain higher I-CAR pro levels.

Certificate Requirements

Course Code	Course Title	Units
ACT 100	Automotive Collision Basics	4
ACT 110	Component Repairs	4
ACT 120	Non-Structural Repair	4
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify collision damage
- repair vehicle sheet steel
- determine repair or replace based on I-CAR/ASE criteria
- repair hybrid vehicles to meet legal safely standards

Career Information

This program provides training and hands-on experience in high-demand skills that lead to promising career with high wages. Students who have successfully completed this program are working as body repair technicians. The U.S. Labor Department reports that job opportunity for auto collision specialists are excellent because of large number of older workers who are expected to retire in the next 4 to 10 years. In addition, it points out that experienced technicians are rarely laid off and employers prefer to hire graduates of a formal training program because it provides a foundation in the latest collision technology, including the techniques and equipment used on the job.

Automotive Collision Technology (ACT) Courses

ACT 100 Automotive Collision Basics

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers the basics of automotive collision repair of traditional, electric, and electric hybrid vehicles. Topics include use and disposal of hazardous materials; lighting, starting, and charging systems; and appropriate use and maintenance of tools and equipment.

ACT 110 Component Repairs

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ACT 100 with a grade of "C" or better

This course provides the technical principles and theories to perform limited and supervised repairs to collision-damaged vehicles. It covers how to safely remove, inspect, replace, and align bolt-on body components per vehicle manufacturers' specifications. It covers protection of mechanical and electrical systems, removal of damaged parts, removal and reinstallation of movable glass, diagnosis of wind noise and water leaks, and techniques applicable to damaged vehicles.

ACT 120 Non-Structural Repair

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ACT 100 with a grade of "C" or better

This course introduces the technical principles and theories to perform limited and supervised repairs to collision-damaged vehicles. It covers the fundamentals and theory of automotive collision repair procedures including composite repairs and replacements. Foam application techniques pertaining to noise reduction and structural strength are implemented. Additionally, metal straightening theory and techniques for steel and aluminum repairs, and the decision to make repairs vs. replacement are included.

ACT 130 Structural Repair

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ACT 100 and 131 with grades of "C" or better

This course covers principles and theories of automotive collision repair, including component alignment, component replacement, structural panel repair or replacement, corrosion protection, and chassis/frame alignment. Sectioning and full-panel replacement techniques and procedures are covered, including welding and self-piercing rivet adhesive bonding. Required corrosion protection techniques are applied.

ACT 131 Automotive Collision Welding

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers the various processes of welding in automotive collision repairs using metal inert gas (MIG) and tungsten inert gas (TIG). Topics include preparation, welding, and finishing.

ACT 140 Automotive Refinishing

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ACT 100 and 120 with grades of "C" or better

This course covers the principles and theories of paint finish application, tinting, color evaluation, and color adjustments. Topics include paint application techniques, new and emerging paint technologies, color identification, and interpreting vehicle color codes. This course also addresses multiple compliances with regulations as determined by the Occupational Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA), the Clean Air Act, and the Sacramento Municipal Air Quality Air Management District (SMAQMD) pertaining to Volatile Organic Compounds (VOC's).

ACT 150 Advanced Collision Frame & Unibody

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ACT 110, 120, 130, and 140 with grades of "C" or better

This course covers the principles and theories of advanced chassis design, development, and construction. Extensive bracket and frame fabrication and welding are emphasized.

ACT 152 Advanced Collision Suspensions

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ACT 110, 120, 130, and 140 with grades of "C" or better

This course covers the principles and theories of advanced suspension design, development, and construction. Topics include big brakes and air suspensions.

ACT 154 Advanced Collision Drivetrain

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ACT 110, 120, 130, and 140 with grades of "C" or better

This course covers the principles and theories of advanced engines and transmissions. Topics include engine performance tuning and transmission selection.

ACT 156 Advanced Collision Refinish

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ACT 110, 120, 130, and 140 with grades of "C" or better

This course covers the principles and theories of advanced custom show-quality automotive finishes. Topics include primers, color coats, special effects, clear coats, and polishing.

ACT 161 Automotive Collision Software Systems, Estimating I

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course provides the technical and practical skills necessary to properly diagnose collision-damaged vehicles and to document the cost and time necessary to repair collision-damaged vehicles. The use of state-of-the-art computer generated estimating programs and video imaging are used to prepare itemized estimates on collision-damaged vehicles. The procedures to prepare itemized estimates detailing the required procedures and parts necessary to correctly repair the vehicle are also covered.

ACT 298 Work Experience in Collision Technology

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Automotive Collision Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the automotive collision field. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with the employer when the course is repeated. Only one Work Experience course may be taken per semester.

ACT 299 Experimental Offering in Automotive Collision Technology

Units: 0.5 - 4

Hours: 72 hours LEC

Prerequisite: None.

This course presents ten integral and fundamental areas of knowledge and skill required for an I-CAR Certified technician in the automotive collision repair industry. It also prepares students to be eligible for the following I-CAR industry certifications: An overview of the collision repair process; An overview of personal safety; Vehicle construction materials; Vehicle parts terminology (parts 1 and 2); Safety systems; Tools, equipment and attachment methods (parts 1 and 2); Industry repair terms; Mechanical systems terminology (parts 1 and 2); Mechanical repair terms and vehicle protection; Refinishing and corrosion protection (parts 1 and 2); Resume building and professionalism in the collision industry. (Taking the I-CAR Certifications tests requires I-CAR membership, which costs $50.00, and is optional in this course).

Automotive Technology

Overview

The automotive technology program is a combination of classroom and hands-on shop experiences that prepare students for careers in all phases of automotive service and repair on all types of cars. Students are trained on the use of workshop manuals in traditional and computerized formats, hand held meters and scanners, and special shop tools including power and hand tools.

Highlights include:

- NATEF certified in: brakes, electrical/electronic systems, engine performance, suspension and steering, automatic transmission/transaxle, engine repair, heating and air conditioning, manual drive trains and axles.
- ASE certified instructors and programs.
- Students may begin 5-week courses 3 times during the semester.
- 5-week courses allow completion of some certificate programs in one semester.
- Small class size ensures individual attention and access to specialized equipment.
- Preparation for ASE and State Smog Certification (Emissions Control) exams.

Degrees and Certificates Offered

A.S. in Automotive Analysis

A.S. in Automotive Component Service Technician

A.S. in Automotive Technology

A.S. in Green Vehicle Technology

Air Conditioning Service Certificate

Automotive Analysis Certificate

Automotive Component Service Technician Certificate

Automotive Emissions Inspection and Repair Technician Certificate

Automotive Powertrain Systems Remanufacturing Certificate

Automotive Technology Certificate

Extreme Tuner Certificate

Green Vehicle Technology Certificate

Parts and Service Certificate

Small Engines Certificate

Snap-On™ Certification Certificate

Transmission Service Certificate

Undercar Service Certificate

Automotive Brakes Certificate

Automotive Suspension and Steering Certificate

Dean: Jon Wedding

Department Chair: Ben French

Phone: (916) 484-8588

Email: MCT@arc.losrios.edu

Associate Degrees

A.S. in Automotive Analysis

This program prepares students for entry-level employment as smog and driveability service technicians. It also prepares students for Automotive Service Excellence (ASE) certification in Engine Repair A1, Automatic Transmissions/Transaxles A2, Electrical A6, Engine Performance A8, and Advanced Engine Performance L1. This program also fulfills the Bureau of Automotive Repair (BAR) requirements for California State Smog Check Inspector and California State Smog Check Repair Technician test candidates.

Degree Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 105	Mathematics for Automotive Technology	3
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3
AT 188	Aftermarket Scan Tool Use and Operation	2

Course Code	Course Title	Units
AT 189	Digital Storage Oscilloscope Use and Operation	2
AT 330	Automotive Electrical Systems	3
AT 331	Advanced Automotive Electrical Systems	3
AT 332	Engine Performance & Electronic Engine Controls	6
AT 333	California State Smog Check Inspector Training	6
A minimum of 1 unit from the following:		1
AT 140	Advanced Automotive Skill and Speed Development (3)	
or AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**35**

The Automotive Analysis Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and implement safety procedures involved in the diagnosis, service, and repair of all major automobile and light truck systems.
- describe the function, operation, and characteristics of all major components in the following automotive systems: engines, automatic transmissions, electrical, air conditioning, emission control and computerized engine controls.
- identify and follow manufacturer's standards for proper automobile diagnosis and repair.
- operate hand and power tools necessary for automobile and light truck repair.
- operate diagnostic equipment and interpret test results.
- analyze, diagnose, and repair automotive engines, automatic transmissions, electrical systems, fuel delivery systems, ignition systems, emissions control systems, and computerized engine controls.
- operate a variety of aftermarket and factory scan tools.

Career Information

Automotive Technician Smog Check Technician

A.S. in Automotive Component Service Technician

This degree prepares the student for employment repairing various automobile components including those requiring computer technology.

Degree Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 105	Mathematics for Automotive Technology	3
AT 110	Automotive Brakes	3
AT 130	Manual Drive Trains and Axles	3
AT 140	Advanced Automotive Skill and Speed Development	3
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3
AT 310	Heating and Air-Conditioning Systems	3
AT 311	Suspension and Steering Systems	3
AT 313	Automatic Transmission and Transaxles	3
AT 314	Automotive Engine Repair	3
AT 330	Automotive Electrical Systems	3
A minimum of 1 unit from the following:		1
AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**37**

The Automotive Component Service Technician Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- diagnose and repair major automotive components.
- describe the relationships between automotive components.
- complete service and repair work to industry time and quality standards.
- follow Federal Environmental Protection Agency (EPA) guidelines for handling and use of hazardous material found in an automotive shop.
- demonstrate safe work practices in the auto shop.

Career Information

Employment as a technician, shop foreman, service manager for new car dealers, automotive repair shops, and fleet operators.

A.S. in Automotive Technology

This program prepares students for entry-level positions in the automotive industry with emphasis on engine management systems, emission controls, and complete automotive systems diagnosis and repair. It prepares students for all nine Automotive Service Excellence (ASE) certifications including Advanced Engine Performance (L-1). This program also fulfills the Bureau of Automotive Repair (BAR) requirements for California State Smog Check Inspector and California State Smog Check Repair Technician test candidates.

Degree Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 105	Mathematics for Automotive Technology	3
AT 110	Automotive Brakes	3
AT 130	Manual Drive Trains and Axles	3
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3
AT 310	Heating and Air-Conditioning Systems	3
AT 311	Suspension and Steering Systems	3
AT 313	Automatic Transmission and Transaxles	3
AT 314	Automotive Engine Repair	3
AT 330	Automotive Electrical Systems	3
AT 331	Advanced Automotive Electrical Systems	3
AT 332	Engine Performance & Electronic Engine Controls	6
AT 333	California State Smog Check Inspector Training	6
A minimum of 1 unit from the following:		1
AT 140	Advanced Automotive Skill and Speed Development (3)	
or AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**49**

The Automotive Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply algebraic and mathematical concepts essential to advancement in the automotive industry.
- operate equipment and tools safely.
- evaluate, adjust, test, and diagnose components/system malfunctions.
- diagnose, assess, and repair manual and automatic transmissions and transaxles.
- locate, download, and analyze technical manuals from the Internet, digital, and text sources.
- analyze, diagnose, and repair automotive electrical and electronic systems to ASE performance level.
- diagnose, troubleshoot, and repair basic air conditioning (AC) systems.
- diagnose, disassemble, inspect, clean, and reassemble components of the steering and suspension system.
- analyze, diagnose, and repair engines to ASE performance levels.
- analyze and repair fuel injection systems to ASE standards.
- diagnose engine emission control systems to ASE standards.
- prepare for the State Smog Check Inspector and California State Smog Check Repair Technician tests.

A.S. in Green Vehicle Technology

This program prepares students for entry-level positions in the automotive industry with emphasis on alternative fuel and electric vehicle drive systems and complete automotive systems diagnosis and repair. It covers the various technologies used in the alternative fuel and electric vehicles of today. Major emphasis is on electric vehicles, hybrid electric vehicles, and fuel cell technology. Alternative fuels such as compressed natural gas and biodiesel are also covered. It prepares students for Automotive Service Excellence (ASE) certifications A-2 through A-8, L-3, and F-1.

Degree Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 105	Mathematics for Automotive Technology	3
AT 110	Automotive Brakes	3
AT 130	Manual Drive Trains and Axles	3
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3

Course Code	Course Title	Units
AT 310	Heating and Air-Conditioning Systems	3
AT 311	Suspension and Steering Systems	3
AT 330	Automotive Electrical Systems	3
AT 331	Advanced Automotive Electrical Systems	3
AT 332	Engine Performance & Electronic Engine Controls	6
AT 341	Alternative Fuels and Advanced Technology Vehicles	3
AT 343	Electric Vehicle Construction, Diagnosis and Repair	3
AT 345	Hybrid Electric Vehicle Technology, Service and Repair	3
AT 347	Advanced Hybrid and Electric Vehicle Technology Service and Repair	3
A minimum of 1 unit from the following:		1
AT 140	Advanced Automotive Skill and Speed Development (3)	
or AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**49**

The Green Vehicle Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate basic automotive system service procedures on alternative fuels vehicles.
- describe different alternative fuels vehicle designs.
- describe the process of making biodiesel.
- analyze electrical and electronic components and identify failures.
- use automotive test equipment such as digital multimeters and scan tools.
- demonstrate high voltage system disable procedures on hybrid electric vehicles.
- apply algebraic and mathematical concepts essential to advancement in the automotive industry.
- operate equipment and tools safely.
- assess, adjust, test, and diagnose components/system malfunctions.
- locate, download, and analyze technical manuals from the Internet, digital, and text sources.
- analyze, diagnose, and repair automotive electrical and electronic systems to ASE performance level.
- assemble a basic electric vehicle operating system.

Career Information

Alternative fuels is an emerging career field that is rapidly growing. This certificate prepares automotive technology students for entrance into this field, from servicing alternative fuels vehicles to developing alternative fuels technology. Additional career opportunities are likely as the industry continues to grow.

Certificates of Achievement

Air Conditioning Service Certificate

This certificate program prepares the student for an entry level position in the automotive industry. This program also prepares the student for Automotive Service Excellence (ASE) certification in Air Conditioning A-7.

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 105	Mathematics for Automotive Technology	3
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3
AT 310	Heating and Air-Conditioning Systems	3
A minimum of 1 unit from the following:		1
AT 140	Advanced Automotive Skill and Speed Development (3)	
or AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**16**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and implement safety procedures involved in the service and repair of Automotive Heating, Ventilation, Air Conditioning (HVAC) systems.
- describe the function, operation and characteristics of each component in automotive HVAC systems.
- operate diagnostic equipment and interpret results from the equipment.
- diagnose automotive HVAC systems including manual, semi-automatic, and automatic.

- repair automotive HVAC systems including manual, semi-automatic, and automatic.
- diagnose engine cooling systems.
- repair engine cooling systems.
- follow Federal Environmental Protection Agency (EPA) guidelines for the handling and use of refrigerants.

Automotive Analysis Certificate

This program prepares students for entry-level employment as smog and driveability service technicians. It also prepares students for Automotive Service Excellence (ASE) certification in Engine Repair A1, Automatic Transmissions/Transaxles A2, Electrical A6, Engine Performance A8, and Advanced Engine Performance L1. This program also fulfills the Bureau of Automotive Repair (BAR) requirements for California State Smog Check Inspector and California State Smog Check Repair Technician test candidates.

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 105	Mathematics for Automotive Technology	3
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3
AT 188	Aftermarket Scan Tool Use and Operation	2
AT 189	Digital Storage Oscilloscope Use and Operation	2
AT 330	Automotive Electrical Systems	3
AT 331	Advanced Automotive Electrical Systems	3
AT 332	Engine Performance & Electronic Engine Controls	6
AT 333	California State Smog Check Inspector Training	6
A minimum of 1 unit from the following:		1
AT 140	Advanced Automotive Skill and Speed Development (3)	
or AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**35**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and implement safety procedures involved in the diagnosis, service, and repair of all major automobile and light truck systems.
- describe the function, operation, and characteristics of all major components in the following automotive systems: engines, automatic transmissions, electrical, air conditioning, emission control, and computerized engine controls.
- identify and follow manufacturer's standards for proper automobile diagnosis and repair.
- operate hand and power tools necessary for automobile and light truck repair.
- operate diagnostic equipment and interpret test results.
- analyze, diagnose, and repair automotive engines, automatic transmissions, electrical systems, fuel delivery systems, ignition systems, emissions control systems, and computerized engine controls.
- operate a variety of aftermarket and factory scan tools.

Career Information

Automotive Technician Smog Check Technician

Automotive Component Service Technician Certificate

This certificate prepares the student for entry level employment in the repairing of various automobile components including those requiring computer technology.

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 105	Mathematics for Automotive Technology	3
AT 110	Automotive Brakes	3
AT 130	Manual Drive Trains and Axles	3
AT 140	Advanced Automotive Skill and Speed Development	3
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3
AT 310	Heating and Air-Conditioning Systems	3
AT 311	Suspension and Steering Systems	3
AT 313	Automatic Transmission and Transaxles	3
AT 314	Automotive Engine Repair	3
AT 330	Automotive Electrical Systems	3
A minimum of 1 unit from the following:		1
AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**37**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- diagnose and repair automotive major automotive components.
- describe the relationship between automotive components.
- complete service and repair tasks to industry time and quality standards.
- follow Federal Environmental Protection Agency (EPA) guidelines for handling and use of hazardous material found in an automotive shop.
- demonstrate safe work practices in the auto shop.

Career Information

Employment as a technician for new car dealers, automotive repair shops, and fleet operators.

Automotive Emissions Inspection and Repair Technician Certificate

This certificate prepares students for entry-level positions in the automotive industry as emissions inspectors or emissions repair technicians. It meets the state of California requirements for students seeking to apply for a California state smog inspector and/or repair license(s).

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 105	Mathematics for Automotive Technology	3
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3
AT 314	Automotive Engine Repair	3
AT 330	Automotive Electrical Systems	3
AT 331	Advanced Automotive Electrical Systems	3
AT 332	Engine Performance & Electronic Engine Controls	6
AT 333	California State Smog Check Inspector Training	6
AT 334	BAR Specified Diagnostic and Repair Training	4
Total Units:		**37**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- operate emission analyzers and tools safely.
- evaluate, adjust, test, and diagnose components/system malfunctions.
- research, download, and analyze technical manuals from the Internet, digital, and text sources.
- inspect, diagnose, and repair automotive electrical and electronic systems at Automotive Service Excellence (ASE) performance level.
- inspect, diagnose, and repair engines to ASE performance levels.
- inspect, diagnose, and repair fuel injection systems to ASE and BAR standards.
- diagnose engine emission systems to ASE and Bureau of Automotive Repair (BAR) standards.
- prepare for state smog inspector and repair technician certifications.

Career Information

California State Smog Inspector and California State Smog Repair Technician.

Automotive Powertrain Systems Remanufacturing Certificate

This certificate prepares students for entry-level positions in the automotive powertrain remanufacturing industry. It covers the various processes and procedures used in the repair and remanufacturing of vehicle engines, transmissions, transaxles, and final drive units.

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 130	Manual Drive Trains and Axles	3
AT 180	Automotive Data Acquisition	3
AT 301	Small Gas Engines, Outdoor Power Equipment	4
AT 313	Automatic Transmission and Transaxles	3
AT 314	Automotive Engine Repair	3
AT 317	Advanced Drivetrain	3
AT 350	Automotive Engine Blueprinting, Machine Work and Manufacturing	4
Total Units:		**26**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze engine components for wear and/or tear.
- evaluate required engine component repairs by checking them with measurement and test equipment.
- set up and perform one or more machining operations.
- assess electronic, mechanical, or hydraulic failures in powertrain components.
- assemble automatic transmission gear train, shafts, bushings, oil pump, and case.
- assess and adjust automatic transmission bands as necessary.
- inspect and replace automatic transmission friction and reaction units.
- identify the external and internal parts of 2-cycle and 4-cycle engines.
- diagnose and repair manual transmissions and transaxles.
- inspect and repair rear axle ring and pinion gears, differential case assembly, limited slip differential, and axle shafts.

Automotive Technology Certificate

This program prepares students for entry-level positions in the automotive industry with emphasis on engine management systems, emission controls, and complete automotive systems diagnosis and repair. It prepares students for all nine Automotive Service Excellence (ASE) certifications including Advanced Engine Performance (L-1). This program also fulfills the Bureau of Automotive Repair (BAR) requirements for California State Smog Check Inspector and California State Smog Check Repair Technician test candidates.

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 105	Mathematics for Automotive Technology	3
AT 110	Automotive Brakes	3
AT 130	Manual Drive Trains and Axles	3
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3
AT 310	Heating and Air-Conditioning Systems	3
AT 311	Suspension and Steering Systems	3
AT 313	Automatic Transmission and Transaxles	3
AT 314	Automotive Engine Repair	3
AT 330	Automotive Electrical Systems	3
AT 331	Advanced Automotive Electrical Systems	3
AT 332	Engine Performance & Electronic Engine Controls	6
AT 333	California State Smog Check Inspector Training	6
A minimum of 1 unit from the following:		1
AT 140	Advanced Automotive Skill and Speed Development (3)	
or AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**49**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply algebraic and mathematical concepts essential to advancement in the automotive industry.
- operate equipment and tools safely.
- evaluate, adjust, test, and diagnose components/system malfunctions.
- diagnose, assess, and repair manual transmissions and transaxles.
- locate, download, and analyze technical manuals from the Internet, digital, and text sources.
- analyze, diagnose, and repair automotive electrical and electronic systems at ASE performance level.
- diagnose, troubleshoot, and repair basic air conditioning (AC) systems.
- diagnose, disassemble, inspect, clean, and reassemble all components of the steering and suspension system.
- analyze, diagnose, and repair engines to ASE performance levels.
- analyze and repair fuel injection systems to ASE standards.
- diagnose engine emission systems to ASE standards.
- prepare for the State Smog Check Inspector and California State Smog Check Repair Technician tests.

Extreme Tuner Certificate

This program covers advanced applications of emissions related principles including fuel control and efficiency management of modern automobiles. Topics include brakes, repair of electrical systems, suspension, steering, and engine repairs.

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional	3
AT 110	Automotive Brakes	3
AT 130	Manual Drive Trains and Axles	3

Course Code	Course Title	Units
AT 311	Suspension and Steering Systems	3
AT 330	Automotive Electrical Systems	3
AT 314	Automotive Engine Repair	3
AT 316	Alternative Fuels and Advanced Technology Vehicles	4
AT 325	Engine Performance Testing & Tuning	4
AT 327	Introduction to Motorsports	4
Total Units:		**30**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate vehicle horsepower safely and effectively by use of diagnostic equipment.
- analyze and demonstrate safe operating practices both in the shop and track environment with stock and modified vehicles.
- validate and summarize outcomes of fuel, timing and power band modifications through hands-on exposure to live data derived before and after modifications.
- apply performance based principles to construct and operate a vehicle for competition, including classification divisions within a sanctioned racing organization.
- organize maintenance schedules and record keeping in order to keep vehicle competitive throughout a season.
- accurately interpret computer software data to make adjustments and modifications to improve performance and/or economy of a modern vehicle.

Career Information

The “Tuner” industry is a rapidly growing industry. Professional technicians today are modifying vehicles for both on and off road application. This certificate prepares the students for the following career opportunities: alternative fuels diagnostic technician, off-road performance tuner, and a racing team crew member.

Green Vehicle Technology Certificate

This program prepares students for entry-level positions in the automotive industry with emphasis on alternative fuel and electric vehicle drive systems and complete automotive systems diagnosis and repair. It covers the various technologies used in the alternative fuel and electric vehicles of today. Major emphasis is on electric vehicles, hybrid electric vehicles, and fuel cell technology. Alternative fuels such as compressed natural gas and biodiesel are also covered. It prepares students for Automotive Service Excellence (ASE) certifications A-2 through A-8, L-3, and F-1.

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 105	Mathematics for Automotive Technology	3
AT 110	Automotive Brakes	3
AT 130	Manual Drive Trains and Axles	3
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3
AT 310	Heating and Air-Conditioning Systems	3
AT 311	Suspension and Steering Systems	3
AT 330	Automotive Electrical Systems	3
AT 331	Advanced Automotive Electrical Systems	3
AT 332	Engine Performance & Electronic Engine Controls	6
AT 341	Alternative Fuels and Advanced Technology Vehicles	3
AT 343	Electric Vehicle Construction, Diagnosis and Repair	3
AT 345	Hybrid Electric Vehicle Technology, Service and Repair	3
AT 347	Advanced Hybrid and Electric Vehicle Technology Service and Repair	3
A minimum of 1 unit from the following:		1
AT 140	Advanced Automotive Skill and Speed Development (3)	
or AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**49**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate basic automotive system service procedures on alternative fuels vehicles.
- describe different alternative fuels vehicle designs.
- describe the process of making biodiesel.
- analyze electrical and electronic components and identify failures.
- use automotive test equipment such as digital multimeters and scan tools.
- demonstrate high voltage system disable procedures on hybrid electric vehicles.
- apply algebraic and mathematical concepts essential to advancement in the automotive industry.

- operate equipment and tools safely.
- assess, adjust, test, and diagnose components/system malfunctions.
- locate, download, and analyze technical manuals from the Internet, digital, and text sources.
- analyze, diagnose, and repair automotive electrical and electronic systems to ASE performance level.
- assemble a basic electric vehicle operating system.

Career Information

Alternative fuels is an emerging career field that is rapidly growing. This certificate prepares automotive technology students for entrance into this field, from servicing alternative fuels vehicles to developing alternative fuels technology. Additional career opportunities are likely as the industry continues to grow.

Parts and Service Certificate

This certificate provides training for automotive parts and service advisors. Topics include parts knowledge, integrated computer management software, scheduling, inventory control, hazardous materials and warranty documentation requirements.

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 105	Mathematics for Automotive Technology	3
AT 107	Employability Skills for Technical Careers	2
AT 143	Automotive Parts	3
AT 146	Automotive Service Consultant (Service Writing)	3
AT 180	Automotive Data Acquisition	3
A minimum of 1 unit from the following:		1
AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**18**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply established procedures in the automotive industry.
- manage the satisfactory resolution of service-related customer issues.
- create a service work order.
- justify dispatching and invoicing priority.

Career Information

Various entry level positions in the automotive parts and service industry, such as service writers and parts specialists.

Small Engines Certificate

This certificate prepares students for employment in the automotive industry, specializing in small engines.

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional	3
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3
AT 301	Small Gas Engines, Outdoor Power Equipment (4)	4
or HORT 330	Small Gas Engines, Outdoor Power Equipment (4)	
A minimum of 1 unit from the following:		1
AT 140	Advanced Automotive Skill and Speed Development (3)	
or AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**14**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate accepted safety and work procedures, including Occupational Safety and Health Administration (OSHA) and proper hazardous materials disposal.
- service and repair the starter systems of 2-cycle and 4-cycle small engines.
- identify the external and internal parts of 2-cycle and 4-cycle small engines.
- determine the proper lubrication and fuel requirements for 2-cycle and 4-cycle small engines using factory maintenance data.
- service and repair the cooling and oil systems of 2-cycle and 4-cycle small engines.
- remove, rebuild, install, adjust, and tune 2-cycle and 4-cycle small engine fuel delivery and ignition system components.

Career Information

The automotive small engines industry is growing and in need of technicians. This certificate prepares students for employment in many different areas, including horticulture, off road vehicles, marine applications, and many others.

Snap-On™ Certification Certificate

This certificate prepares students for entry-level positions in the automotive industry. It provides the knowledge and skills needed for certification using current Snap-On™ diagnostic tools.

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional	3
AT 107	Employability Skills for Technical Careers	2
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3
AT 188	Aftermarket Scan Tool Use and Operation	2
AT 189	Digital Storage Oscilloscope Use and Operation	2
A minimum of 1 unit from the following:		1
AT 140	Advanced Automotive Skill and Speed Development (3)	
or AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**16**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate safe, accurate use of tools and equipment.
- apply accurate measurement techniques.
- explain screen orientation and how to navigate through different functions of the VERUS scanner.
- perform the proper procedure to do an oil change on a vehicle.
- locate and analyze technical manuals from online computerized databases.
- apply retrieved data to specific vehicle conditions.

Career Information

The automotive industry is growing and in need of technicians. Snap-On™ certifications are in high demand.

Transmission Service Certificate

This certificate program prepares the student for an entry-level position in the automotive industry. This program includes Automotive Service Excellence (ASE) certification in A-2 automatic transmission and A-3 manual drive-train.

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 105	Mathematics for Automotive Technology	3
AT 130	Manual Drive Trains and Axles	3
AT 140	Advanced Automotive Skill and Speed Development	3
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3
AT 313	Automatic Transmission and Transaxles	3
AT 317	Advanced Drivetrain	3
Total Units:		**24**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze an automotive transmission, applying elements of drive-train theory.
- investigate an automotive electrical malfunction by locating, testing and identifying the failure in order to make the necessary repairs.
- research automotive data sources in order to identify the correct repair procedure, and locate safety campaigns and bulletins.
- describe the operation of drive-train components in order to report and justify a recommended repair procedure.
- apply gear theory to drive-train malfunction.
- evaluate and recognize the drive-train malfunction.

Career Information

Entry-level positions in automatic transmission, clutch, and drive-train repair.

Undercar Service Certificate

The Undercar Service certificate provides entry-level training in performing repairs to automotive suspension, brake, and exhaust systems.

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 105	Mathematics for Automotive Technology	3
AT 106	Automotive Shop Operations	2
AT 110	Automotive Brakes	3
AT 145	Automotive Exhaust System	3
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3
AT 311	Suspension and Steering Systems	3
A minimum of 1 unit from the following:		1
AT 140	Advanced Automotive Skill and Speed Development (3)	
or AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**24**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- develop a resume and cover letter to plan for future career opportunities.
- perform run-out and parallelism evaluations on brake rotors and machine to manufacturer's specifications.
- measure and analyze suspension angles of a modern automobile and make adjustments necessary to bring the angle within manufacturer's specifications.
- identify modern exhaust system components and demonstrate how they relate to California emission control laws.
- research and synthesize brake, suspension, and exhaust system information on electronic service manuals to provide information on repairs to meet industry standards.

Career Information

This certificate provides students with knowledge for entry-level careers in the automotive suspension, brake, and exhaust repair facilities.

Certificates

Automotive Brakes Certificate

This certificate prepares students for employment in the automotive industry, specializing in brakes.

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 110	Automotive Brakes	3
AT 180	Automotive Data Acquisition	3
AT 181	Electrical Fundamentals and Multimeter Basics	3
A minimum of 1 unit from the following:		1
AT 140	Advanced Automotive Skill and Speed Development (3)	
or AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**13**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe shop orientation and safety issues.
- discuss the basics of vehicle service including oil, lubrication, inspection, and replacement of fluids.
- demonstrate proper handling, use, and disposal of hazardous materials in the automotive shop environment, combined with a safety test.
- practice safety precautions and procedures when inspecting and repairing braking systems.
- analyze the various brake components used on automobiles and describe the functions of each.
- evaluate and diagnose brake components/system malfunctions.
- reassemble and adjust all components of the brake system following service manual procedures.
- arrange, clean, inspect, and measure all components of brake systems following established service manual procedures.

Career Information

The automotive brakes industry is growing and in need of technicians.

Automotive Suspension and Steering Certificate

This certificate prepares students for employment in the automotive industry, specializing in suspension and steering.

Certificate Requirements

Course Code	Course Title	Units
AT 100	Technical Basics for the Automotive Professional (3)	3
or AT 103	Basic Automotive Skills (3)	
AT 105	Mathematics for Automotive Technology	3
AT 180	Automotive Data Acquisition	3
AT 311	Suspension and Steering Systems	3
A minimum of 1 unit from the following:		1
AT 140	Advanced Automotive Skill and Speed Development (3)	
or AT 298	Work Experience in Automotive Technology (0.5 - 4)	
Total Units:		**13**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze, describe, and avoid unsafe working conditions and unsafe acts, as well as observe safety regulations in an auto repair facility.
- identify the various components used on automotive steering and suspension systems and describe the function of each.
- perform geometric centerline and thrustline alignments.
- disassemble, inspect, clean, and reassemble all components of the steering and suspension systems in accordance with service manual procedures.
- determine the need for and perform four-wheel alignments.
- diagnose any malfunction of the steering suspension components used on automobiles.

Career Information

The automotive suspension and steering industry is growing and in need of technicians.

Automotive Technology (AT) Courses

AT 100 Technical Basics for the Automotive Professional

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: None.

This course presents theoretical and practical training for entry-level automotive technicians. It presents basic automotive diagnosis and service procedures used in automotive shops. Projects performed in an automotive shop environment provide hands-on experience with industry shop tools. Shop service operations which meet Automotive Service Excellence (ASE) standards including safety, electrical, and other general automotive procedures are covered.

AT 103 Basic Automotive Skills

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

This course presents theoretical training for entry-level automotive technicians. It presents basic automotive diagnosis and service procedures used in automotive shops. Projects in an automotive shop environment, using industry shop tools are demonstrated. Shop service operations which meet Automotive Service Excellence (ASE) standards including safety, electrical, and other general automotive procedures are covered.

AT 105 Mathematics for Automotive Technology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Corequisite: AT 100

General Education: Local GE L2

This course covers mathematics relative to the automotive trades. Course topics include the metric system, fractions, decimal equivalents, basic equations, ratio and proportion, gear ratio calculations, power, efficiency, and torque. This course is designed for Automotive Technology majors and covers all automotive-related mathematical areas from basic technician calculations to shop money management.

AT 106 Automotive Shop Operations

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

This course introduces operations of automotive dealerships, independent shops, and fleet shops. Emphasis is placed on the various influences that affect the technician's position within the operation. Topics include service, sales, parts, and financial operations. Customer Satisfaction Index (CSI) and the Bureau of Automotive Repair (BAR) are discussed. Field trips to local shops may be required.

AT 107 Employability Skills for Technical Careers

Same As: ET 250 and WELD 150

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

General Education: Local GE L7B

This course provides the opportunity to explore technical careers while developing valuable work and life skills. It is an introduction to several related occupations, emphasizing technical careers in the Sacramento area. Activities are designed to enhance personal development, employability skills, and self-esteem through leadership, citizenship, and character development. This course is not open to students who have completed ET 250 or WELD 150.

AT 108 Successful Automobile Selling Skills

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

This course covers successful automobile sales techniques. Topics include the process of selling cars, from greeting the consumer to closing the sale, along with understanding today's information-age consumer.

AT 110 Automotive Brakes

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: None.

Corequisite: AT 100 and 180

Advisory: AT 181 and 188

This course covers the theory, design, adjustment, and repair or overhaul of brake systems and components. It covers the proper operation of power and hand devices used in the servicing of brake systems and components. This course meets Automotive Service Excellence (ASE) A5 standards.

AT 130 Manual Drive Trains and Axles

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: None.

Corequisite: AT 100 and 180

Advisory: AT 181 and 188

This course covers the basic principles of manual transmissions and transaxles and service. Topics include clutches, manual transmissions and transaxles, drive line and shafts, differentials/limited slip differentials, and four-wheel drive/all-wheel drive. This course meets Automotive Service Excellence (ASE) standard A3.

AT 140 Advanced Automotive Skill and Speed Development

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: None.

Corequisite: AT 100

Advisory: AT 110, 130, 181, 310, 311, and 314

This course covers basic automotive component diagnosis, service, and repair for major vehicle systems including: brakes, suspension, heating, air conditioning, electrical, engines and transmissions. Emphasis is placed on shop service operations which meet Automotive Service Excellence (ASE) maintenance and light repair standards, which will help students prepare for the ASE G1 service exam. Activities are designed to further develop skill, speed, and experience capabilities of automotive majors to meet industry diagnostic and repair performance expectations and prepare for competing in the regional, state, and national SkillsUSA competition. This course may be taken up to four times with different competitions.

AT 143 Automotive Parts

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Corequisite: AT 100

This course introduces the key workings of automotive systems and their related parts. It also offers preparation for the Automotive Service Excellence (ASE)
P-2 Parts Specialist test. Topics include suspension systems, hazardous waste regulations, and inventory management.

AT 145 Automotive Exhaust System

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: AT 100 with a grade of "C" or better

This course is an introduction to the principles and service of exhaust systems, including pipe bending, cutting, welding, installation, repair, and inspection. It offers preparation to students for the Automotive Service Excellence (ASE) X1

exhaust systems test, which is required for the ASE Under-Car Specialist Certificate. Various welding techniques are covered during the semester.

AT 146 Automotive Service Consultant (Service Writing)

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Corequisite: AT 180

This course introduces the basic requirements needed to perform the duties of an automotive service consultant (service writer). It also offers preparation for the Automotive Service Excellence (ASE) C-1 Service Consultant exam. Topics include utilization of diagnostic flow charts, recruiting techniques, and small business operations.

AT 156 Light Duty Diesel/Green Diesel Technology

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: AT 314

This course introduces the diagnosis and repair of light duty diesel vehicles and covers the theory and operation of light duty diesel engines and their fuel delivery systems. Topics include diesel engine characteristics, early mechanical fuel delivery systems, early cylinder head design, and early engine construction. It also covers how to prepare these engines for conversion to green technology, such as low sulfur fuel, biodiesel, and alternative fuels. This course along with AT 157 is applicable for the field technician seeking training for ASE A9 certification and preparation for green technologies.

AT 157 Advanced Light Duty Diesel/ Green Diesel Technology

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: AT 156 and 330

This course focuses on late model turbocharged light duty diesel vehicles operating on low sulfur, biodiesel, or alternative fuels. Topics include computer controlled injection, emission control systems, sensors, actuators, computer modules, exhaust gas recirculation (EGR) systems, particulate traps, selective catalytic reduction (SCR) systems, and lean oxides of nitrogen (NOx) traps. Diagnosis and repair of these systems are covered using computer diagnostic equipment to meet state emission compliance. This course along with AT 156 is applicable for the field technician seeking training for ASE A9 certification and preparation for green technologies.

AT 171 Bureau of Automotive Repair (BAR) Emissions Update UT033

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

This course improves technicians' abilities to diagnose and repair emissions failures on complex computer-controlled vehicles.

AT 177 Bureau of Automotive Repair (BAR) Emissions Update UT069

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

This course improves technicians' abilities to diagnose and repair emissions failures on complex computer-controlled vehicles.

AT 178 Bureau of Automotive Repair (BAR) Emissions Update UT055

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

This course improves automotive repair technicians' abilities to diagnose and repair emissions failures on complex computer-controlled vehicles that use variable valve lift and valve timing technologies.

AT 180 Automotive Data Acquisition

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

This course covers the skills needed to adequately retrieve and apply automotive data, including on-line technical manuals and computerized shop management programs. Computer-based automotive service repair order generation is covered as well as usage and application currently utilized in many automotive repair facilities.

AT 181 Electrical Fundamentals and Multimeter Basics

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: None.

This course covers the principles, operation, and diagnosis of automotive electrical systems including fundamentals of electricity (DC), electrical circuits, battery operation, fundamentals of magnetism, and electrical schematics. It also explores the functionality and capability of the digital multimeter to improve technicians' diagnostic expertise when working with electrical related problems. Along with completion of AT 330 and AT 331, this course meets Automotive Service Excellence (ASE) certification standards for the A6 Electrical Systems certification.

AT 182 Manufacturer Training and Certification

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

This course offers students an opportunity to complete manufacturer specific automotive training offered by our automotive manufacturer partners. Students who successfully complete this course may earn manufacturer certifications in one or more subject areas. Certification is limited to manufacturers partnering with the American River College Automotive Program. This course may be taken up to four times covering a different manufacturer each time.

AT 184 Manufacturer Specific Scan Tool Use and Operation

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

This course explores the functionality and capability of various manufacturer specific scan tools to improve the technician's diagnostic expertise when working with On-Board Diagnostic (OBD II) computer-related problems. Topics include generic and manufacturer specific codes and data, monitor status, code setting strategies, and basic troubleshooting techniques.

AT 186 Snap On Diagnostic Tool Use and Operation

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

This course explores the functionality and capability of Snap-On scan tools to improve the technician's diagnostic expertise when working with On-Board computer-related problems. Topics include generic and manufacturer specific codes and data, monitor status, code setting strategies, and basic troubleshooting techniques. Students enrolled in this course may also be able to receive Snap-On diagnostic tool certifications.

AT 188 Aftermarket Scan Tool Use and Operation

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

This course explores the functionality and capability of various aftermarket scan tools to improve the technician's diagnostic expertise when working with On-Board computer-related problems. Topics include generic and manufacturer specific codes and data, monitor status, code setting strategies, and basic troubleshooting techniques.

AT 189 Digital Storage Oscilloscope Use and Operation

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

This course explores the functionality and capability of various digital storage oscilloscopes (DSO) to improve the technician's diagnostic expertise when working with computer controlled vehicle systems. Topics include lab scope set up, navigation, functions, and operation.

AT 190 Advanced Student Projects

Units: 2

Hours: 108 hours LAB

Prerequisite: AT 100 with a grade of "C" or better

This course provides opportunities to pursue advanced laboratory projects in all eight of the Automotive Service Excellence (ASE) educational areas. Projects are selected by the Automotive Department.

AT 251 Automotive Electronic Accessories and Installation

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: AT 181 and ET 302 with grades of "C" or better

This course covers the principles and processes involved in the installation of mobile entertainment, security, positioning, and other electrical and electronic related systems and components. Safety, circuit diagrams, inspection, wiring, installation, and troubleshooting techniques are covered along with the operational characteristics of the various electrical circuits. This course offers preparation to become a qualified Mobile Electronics Certified Professional (MECP) installer. Field trips are required.

AT 294 Topics in Automotive Technology

Units: 0.5 - 3

Hours: 9 - 54 hours LEC; 27 - 162 hours LAB

Prerequisite: None.

This is an individualized course developed in cooperation with automotive industry groups to meet specialized training needs for the automotive industry. It may be taken four times with no duplication of topics.

AT 295 Independent Studies in Automotive Technology

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

AT 298 Work Experience in Automotive Technology

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Automotive Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the automotive field. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.
During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

AT 299 Experimental Offering in Automotive Technology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

AT 301 Small Gas Engines, Outdoor Power Equipment

Same As: HORT 330

Units: 4

Hours: 55 hours LEC; 60 hours LAB

Prerequisite: None.

Transferable: CSU

This course covers the basic operational theory, servicing, adjusting, and maintenance of 2-cycle and 4-cycle small gas engines as they pertain to the automotive and horticulture industries. In addition, the small engine repair skill areas included in the regional, state, and national SkillsUSA competitions are covered. AT 301 and/or HORT 330 may be taken two times for credit for a maximum of 8 units, using different equipment.

AT 309 Introduction to Hybrid and Electric Vehicle Technology

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: AT 331 with a grade of "C" or better

Advisory: AT 110, 310, 313, 314, and 332

Transferable: CSU

This course covers the theory and operation of hybrid and electric vehicle operation. Each of the major manufacturers' vehicles is discussed along with the safety and service procedures that apply to these vehicles. Hands-on activities include major service procedures and basic diagnostics on the most common hybrid and electric vehicles in the market today. It is recommended that a student take the electrical, brakes, and air conditioning courses or a have previous field experience before taking this course.

AT 310 Heating and Air-Conditioning Systems

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: None.

Corequisite: AT 100

Advisory: AT 181 and 188

Transferable: CSU

This course is an introduction to automotive heating and air conditioning theory. It meets Automotive Service Excellence (ASE) standard A7 and combines performance testing and repair practices as utilized in the industry.

AT 311 Suspension and Steering Systems

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: None.

Corequisite: AT 100

Advisory: AT 181 and 188

Transferable: CSU

This course is an introduction to advanced principles and service of suspension and steering systems, including alignment of equipment, alignment procedures, and the diagnosis and repair of suspension components. It meets Automotive Service Excellence (ASE) A4 certification standards.

AT 313 Automatic Transmission and Transaxles

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: None.

Corequisite: AT 100

Advisory: AT 181 and 188

Transferable: CSU

This course covers the basics of automatic transmission and transaxle principles and service. Topics include hydraulic principles, diagnosis and service, power conversion, and automatic transmission operation. AT 313 and AT 317 together meet Automotive Service Excellence (ASE) standard A2.

AT 314 Automotive Engine Repair

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: None.

Corequisite: AT 100 and 105

Transferable: CSU

This course covers the principles, operation, and diagnosis of automotive engines, including basic engine operation and construction, parts identification and location, engine disassembly procedures, engine diagnosis, engine repair and rebuilding procedures, and engine reassembly procedures. Completion of AT 314 and AT 332 meet Automotive Service Excellence (ASE) A1 standards.

AT 316 Alternative Fuels and Advanced Technology Vehicles

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Corequisite: AT 100

Transferable: CSU

This hands-on course provides an overview of both conventional and alternative fuels with their impact on vehicle emissions in both gasoline and diesel engines. In addition, advanced vehicle technologies such as hybrid electric, direct injection, and fuel cells are explored. Topics include gasoline, E85, M85, diesel, biodiesel, CNG, LPG, LNG, RNG, EVs, HEVs, fuel cells, and dynamometer testing. Completion of this course helps students prepare for the Automotive Service Excellence (ASE) F1 Alternative Fuels Certification in addition to the ASE L3 Hybrid/Electric Vehicle Specialist Certification. Field trips may be required.

AT 317 Advanced Drivetrain

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: AT 313 with a grade of "C" or better

Transferable: CSU

This course covers advanced aspects of automatic transmissions, automatic transaxles, manual drivetrains, diagnosis, service, and repair. Topics include mechanical, electrical, and electronic diagnosis, diagnosis and repair of vibration problems, advanced scan tool operation, and dynamometer testing. AT 317 and AT 313 together meet Automotive Service Excellence (ASE) standard A2.

AT 325 Engine Performance Testing & Tuning

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: AT 301, 316, and 333 with grades of "C" or better

Advisory: AT 330 and 332

Transferable: CSU

This course explores the performance and efficiency of modern vehicle engine systems through the use of engine dynamometers and flowbench test equipment. Course topics include dynamometer performance testing, high performance engine assembly, engine computer reprogramming, fuel injector flow testing, forced induction systems and how to achieve maximum performance by choosing components that complement each other. Field trips may be required.

AT 327 Introduction to Motorsports

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: AT 110, 130, and 311 with grades of "C" or better

Advisory: AT 325, 330, and 333

Transferable: CSU

This course is an introduction to motorsports through lecture, hands-on activities, and raceway experience. It discusses the operation of a race team, racing events, and race track operation. Course topics include the setup and modification of vehicle safety equipment, suspension, braking, and data acquisition systems. Field trips may be required.

AT 330 Automotive Electrical Systems

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: None.

Advisory: AT 100, 180, and 181

Transferable: CSU

This course builds upon foundational knowledge of the principles, operation, and diagnosis of automotive electrical systems, battery operation, charging system operation, starting system operation, and use of electrical schematics. Along with completion of AT 181 and AT 331, this course meets Automotive Service Excellence (ASE) certification standards for the A6 Electrical Systems certification.

AT 331 Advanced Automotive Electrical Systems

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: None.

Advisory: AT 110, 310, 311, and 330

Transferable: CSU

This course covers the principles of advanced electrical diagnostics. Topics include automotive computers, vehicle networks, driver information systems and accessories, advanced driver-assistance system (ADAS) calibration, supplemental restraint systems, anti-lock brakes, tire pressure monitoring systems, and climate control. Along with

completion of AT 181 and AT 330, this course meets Automotive Service Excellence (ASE) certification standards for the A6 Electrical Systems certification.

AT 332 Engine Performance & Electronic Engine Controls

Units: 6

Hours: 81 hours LEC; 81 hours LAB

Prerequisite: AT 331 and AT 333 with grades of "C" or better

Transferable: CSU

This course covers the principles, operation, and diagnosis of automotive engine performance systems including engine mechanics, ignition, fuel delivery, and electronic engine controls. It includes extensive troubleshooting, use of diagnostic test equipment, lab oscilloscopes, scantools, and emission analyzers. Along with completion of AT 333, this course meets Automotive Service Excellence (ASE) certification standards for the A8 Engine Performance certification. This course is formerly known as AT 326.

AT 333 California State Smog Check Inspector Training

Units: 6

Hours: 81 hours LEC; 81 hours LAB

Prerequisite: AT 314 with a grade of "C" or better

Transferable: CSU

This course covers the Bureau of Automotive Repair (BAR) certified Level 1 and Level 2 smog inspector training. Topics include smog check laws, rules and regulations; standards of practice; engine theory, design, and operation; emission control theory, design, identification, operation, and testing; smog inspection visual and functional testing procedures; and loaded mode emission testing. It is required for first-time licensed inspection technicians. Along with completion of AT 332, this course meets Automotive Service Excellence (ASE) certification standards for the A8 Engine Performance certification. This course is formerly known as AT 323.

AT 334 BAR Specified Diagnostic and Repair Training

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Transferable: CSU

State law currently requires that applicants for a Smog Check Repair license possess Automotive Service Excellence (ASE) certifications in the following areas: A6 – Automotive Electrical/ Electronic systems; A8 – Automotive Engine Performance; L1 – Advanced Engine Performance.

This course is an intensive review of automotive electrical/ electronic systems, engine mechanical systems, emission control systems, and computer control systems as they relate to automotive emissions controls. It satisfies the ASE certification requirement when applying for a Smog Check technician license and may be used by the applicant in lieu of the ASE certifications.

AT 341 Alternative Fuels and Advanced Technology Vehicles

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: None.

Corequisite: AT 100

Transferable: CSU

This hands-on course provides an overview of both conventional and alternative fuels in regards to vehicle emissions, fuel economy and performance. In addition, advanced vehicle technologies such as direct injection, and fuel cells are explored. Topics include: gasoline, ethanol and methanol based fuels (E85, M85), diesel, biodiesel, compressed natural gas (CNG), propane, electric vehicles, hybrids and fuel cell vehicles (FCV). Completion of this course helps students prepare for the Automotive Service Excellence (ASE) F1 Alternative Fuels Certification in addition to the ASE L3 Hybrid/ Electric Vehicle Specialist Certification. Field trips may be required. This course is formerly known as AT 316.

AT 343 Electric Vehicle Construction, Diagnosis and Repair

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: AT 100 with a grade of "C" or better, or placement through the assessment process.

Transferable: CSU

This course covers the operation, construction, diagnosis and repair of electric vehicles. Current production and specialty electric vehicles will be discussed along with the safety and service procedures that apply to these vehicles. Topics include electric vehicle charging stations, lead acid, nickel metal and lithium ion battery technology, permanent magnet and inductive drive motors and battery management systems. Hands-on activities include electric vehicle assembly, major

service procedures, and basic diagnostics. Successful completion of this course will help the student prepare for the ASE Light Duty Hybrid/Electric Vehicle Specialist certification ASE-L3. It is recommended that a student take the electrical and advanced electrical courses or have previous field experience before taking this course.

AT 345 Hybrid Electric Vehicle Technology, Service and Repair

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: AT 100 with a grade of "C" or better

Advisory: AT 330

Transferable: CSU

This course covers the theory and operation of hybrid and electric vehicle operation. Each of the major manufacturers' vehicles is discussed along with the safety and service procedures that apply to these vehicles. Hands-on activities include major service procedures and basic diagnostics on the most common hybrid and electric vehicles in the market today. Successful completion of this course will help the student prepare for the ASE Hybrid/Electric Vehicle Specialist certification ASE-L3. It is recommended that a student take the electrical course or have previous field experience before taking this course. This course is formerly known as AT 309.

AT 347 Advanced Hybrid and Electric Vehicle Technology Service and Repair

Units: 3

Hours: 26 hours LEC; 84 hours LAB

Prerequisite: AT 100 with a grade of "C" or better

Advisory: AT 309

Transferable: CSU

This course covers in depth hybrid and electric vehicle diagnosis and repair beyond what is offered in factory training programs. Topics covered will include battery pack diagnosis and reconditioning, inverter diagnosis and repair, installation of plug in conversion systems, and powertrain management. Diagnostics requiring the use of manufacturer specific and aftermarket scan-tools along with other hybrid and electric vehicle specialty tools will also be covered. This course will prepare the student to diagnose and repair the most popular hybrid electric vehicles, plug-in hybrid electric vehicles and pure electric vehicles in the market today. Successful completion of this course will help the student prepare for the ASE Hybrid/Electric Vehicle Specialist certification ASE-L3.

AT 350 Automotive Engine Blueprinting, Machine Work and Manufacturing

Units: 4

Hours: 54 hours LEC; 66 hours LAB

Prerequisite: AT 314 with a grade of "C" or better

Advisory: AT 301

Transferable: CSU

This course examines the technical procedures to blueprint, machine, and properly assemble automotive engines. Course topics include: engine balancing, boring, honing and resurfacing using specialty machine equipment. Other topics include the manufacturing of custom engine components and performing specialty engine blueprinting measurements. This course will help prepare the student for Automotive Service Excellence, (ASE) and Automotive Engine Rebuilders Association, (AERA) certifications.

AT 495 Independent Studies in Automotive Technology

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

AT 499 Experimental Offering in Automotive Technology

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Biology and Biotechnology

Overview

Biologists are fully engaged in meeting the challenges of the future, helping to improve the quality of human life and preserve our world's biodiversity. The Biology courses at ARC provide students with the breadth and depth of knowledge necessary to more fully understand the living world. The Biology Department offers a wide range of lecture, laboratory, and field courses for majors and non-majors alike, whether for transfer, vocational training, or general interest.

Degrees and Certificates Offered

A.S.-T. in Biology 2.0

A.S. in Biotechnology

A.S. in General Science

Biotechnology Certificate

Dean: Joel Keebler

Phone: (916) 484-8107

Email: askhb-STEM@arc.losrios.edu

Associate Degrees for Transfer

A.S.-T. in Biology 2.0

The Associate in Science in Biology for Transfer 2.0 (AS-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Biology at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (Pursuant to SB1440, §66746):
• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

ADTs also require that students must earn a "C" or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
BIOL 400	Principles of Biology	5
BIOL 415	Introduction to Biology: Biodiversity, Evolution, and Ecology (5)	5 - 10
or [BIOL 410	Principles of Botany (5)	
and BIOL 420]	Principles of Zoology (5)	
CHEM 400	General Chemistry I	5
CHEM 401	General Chemistry II	5
MATH 355	Calculus for Biology and Medicine I (4)	4 - 5
or MATH 400	Calculus I (5)	
List A:		
A minimum of 3 units from the following:		3
CHEM 420	Organic Chemistry I (5)	
or CHEM 423	Organic Chemistry - Short Survey (5)	
PHYS 350	General Physics (4)	
or PHYS 410	Mechanics of Solids and Fluids (5)	
PHYS 360	General Physics (4)	
or PHYS 421	Electricity and Magnetism (4)	
STAT C1000	Introduction to Statistics (4)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
or ECON 310	Statistics for Business and Economics (3)	
or PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
Total Units:		**27 - 33**

The Associate in Science in Biology 2.0 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 California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply the scientific method: define problems clearly, construct testable hypotheses, design and execute appropriate experiments, analyze data, and justify appropriate conclusions.

- demonstrate knowledge of scientific terminology and interpret principle concepts of biology.
- demonstrate content knowledge, laboratory skills, and study skills to be successful at a four-year institution.
- record and analyze data using appropriate laboratory skills and instrumentation.
- assemble and critically evaluate technical information from the scientific literature.
- apply safe laboratory practices.
- work effectively in groups, as leaders or team members, to solve problems and interact productively with a diverse group of peers.
- demonstrate awareness of the role of biology in contemporary societal and global issues.

Associate Degrees

A.S. in Biotechnology

This degree provides the theory and skills necessary for entry into the biotechnology field, which uses cellular and molecular processes for industry or research. Course work includes practical laboratory skills with emphasis on good laboratory practice, quality control, and regulatory issues in the biotechnology workplace. Completion of the degree also prepares the student for transfer at the upper division level to academic programs involving biotechnology.

Degree Requirements

Course Code	Course Title	Units
BIOL 400	Principles of Biology (5)	4 - 5
or BIOL 440	General Microbiology (4)	
or BIOL 442	General Microbiology and Public Health (5)	
BIOT 301	Biotechnology and Human Health	3
BIOT 307	Biotechnology and Society	2
BIOT 311	Biotechnology Laboratory Methods - Molecular Techniques	2
BIOT 312	Biotechnology Laboratory Methods - Microbial and Cell Culture Techniques	2
[[CHEM 305	Introduction to Chemistry (5)	5 - 10
and CHEM 306]	Introduction to Organic and Biological Chemistry (5)	
or CHEM 309]	Integrated General, Organic, and Biological Chemistry (5)	
or [CHEM 400	General Chemistry I (5)	
and CHEM 401]	General Chemistry II (5)	
ENGL C1000	Academic Reading and Writing	3
ENGL 301	College Composition and Literature (3)	3
or ENGL C1001	Critical Thinking and Writing (3)	
STAT C1000	Introduction to Statistics (4)	4
A minimum of 1 unit from the following:		1
BIOT 305	Introduction to Bioinformatics (1)	
or BIOT 498	Work Experience in Biotechnology (0.5 - 4)	
Total Units:		**29 - 35**

The Biotechnology Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply biological and chemical concepts to biotechnology research and its practical applications.
- demonstrate biotechnology laboratory procedures involving protein and DNA techniques, cell culture methods, and solution preparation.
- design and interpret experiments involving biotechnology laboratory procedures.
- evaluate biotechnology laboratory practices in the context of good laboratory practice, quality control, and regulatory issues.
- analyze biotechnology data using mathematical and statistical methods.
- integrate laboratory skills and theory into job-related tasks in the biotechnology workplace.
- appraise social and ethical issues related to advances in biotechnology research and its practical applications.

Career Information

This degree prepares the student for entry-level work in the bioscience industry in the areas of research and development, production, clinical testing, and diagnostic work. Potential

employers include biotechnology and pharmaceutical companies, as well as laboratories in hospitals, government, and universities.

A.S. in General Science

This program provides a broad study in the fields of biological and physical sciences in preparation for transfer to a four-year program and continuation of studies in upper division science courses.

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18[1]
Physical Science Courses		
ASTR C1001	Introduction to Astronomy (3)	
ASTR 310	The Solar System (3)	
ASTR 320	Stars, Galaxies, and Cosmology (3)	
ASTR 330	Introduction to Astrobiology (3)	
ASTR C1001L	Introduction to Astronomy Lab (1)	
ASTR 481	Honors Astronomy: Stars, Galaxies, and Cosmology (4)	
ASTR 495	Independent Studies in Astronomy (1 - 3)	
ASTR 499	Experimental Offering in Astronomy (0.5 - 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 310	Chemical Calculations (4)	
CHEM 338	Chemistry In Your World (3)	
CHEM 400	General Chemistry I (5)	
CHEM 401	General Chemistry II (5)	
CHEM 420	Organic Chemistry I (5)	
CHEM 421	Organic Chemistry II (5)	
CHEM 423	Organic Chemistry - Short Survey (5)	
CHEM 495	Independent Studies in Chemistry (1 - 3)	
CHEM 499	Experimental Offering in Chemistry (0.5 - 4)	
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)	
GEOG 307	Environmental Hazards and Natural Disasters (3)	
GEOG 308	Introduction to Oceanography (3)	
GEOG 309	Introduction to Oceanography Lab (1)	
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 495	Independent Studies in Geography (1 - 3)	
GEOG 499	Experimental Offering in Geography (0.5 - 4)	
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)	
GEOL 320	Global Climate Change (3)	
GEOL 325	Environmental Hazards and Natural Disasters (3)	
GEOL 330	Introduction to Oceanography (3)	
GEOL 331	Introduction to Oceanography Lab (1)	

Course Code	Course Title	Units
GEOL 345	Geology of California (3)	
GEOL 392	Field Studies in Mountain Landscapes (1 - 4)	
GEOL 393	Field Studies in Coastal Landscapes (1 - 4)	
GEOL 394	Field Studies in Volcanic Landscapes (1 - 4)	
GEOL 495	Independent Studies in Geology (1 - 3)	
GEOL 499	Experimental Offering in Geology (0.5 - 4)	
PHYS 310	Conceptual Physics (3)	
PHYS 311	Basic Physics (3)	
PHYS 312	Conceptual Physics Laboratory (1)	
PHYS 350	General Physics (4)	
PHYS 360	General Physics (4)	
PHYS 410	Mechanics of Solids and Fluids (5)	
PHYS 421	Electricity and Magnetism (4)	
PHYS 431	Heat, Waves, Light and Modern Physics (4)	
PHYS 495	Independent Studies in Physics (1 - 3)	
PHYS 499	Experimental Offering in Physics (0.5 - 4)	
Biological Science Courses		
ANTH 300	Biological Anthropology (3)	
ANTH 301	Biological Anthropology Laboratory (1)	
ANTH 303	Introduction to Forensic Anthropology (3)	
ANTH 370	Primatology (3)	
ANTH 480	Honors Biological Anthropology (3)	
ANTH 495	Independent Studies in Anthropology (1 - 3)	
ANTH 499	Experimental Offering in Anthropology (0.5 - 4)	
BIOL 300	The Foundations of Biology (3)	
BIOL 301	Evolution (3)	

Course Code	Course Title	Units
BIOL C1000	Introduction to Biology with Lab (4)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
BIOL 305	Natural History (4)	
BIOL 310	General Biology (4)	
BIOL 322	Ethnobotany (3)	
BIOL 332	Introduction to Ornithology (4)	
BIOL 342	The New Plagues: New and Ancient Infectious Diseases Threatening World Health (3)	
BIOL 352	Conservation Biology (3)	
BIOL 370	Marine Biology (4)	
BIOL 375	Marine Ecology (3)	
BIOL 390	Natural History Field Study (0.5 - 4)	
BIOL 400	Principles of Biology (5)	
BIOL 410	Principles of Botany (5)	
BIOL 415	Introduction to Biology: Biodiversity, Evolution, and Ecology (5)	
BIOL 420	Principles of Zoology (5)	
BIOL 430	Anatomy and Physiology (5)	
BIOL 431	Anatomy and Physiology (5)	
BIOL 440	General Microbiology (4)	
BIOL 442	General Microbiology and Public Health (5)	
BIOL 482	Honors Marine Biology (4)	
BIOL 495	Independent Studies in Biology (1 - 3)	
BIOL 499	Experimental Offering in Biology (0.5 - 4)	
BIOT 301	Biotechnology and Human Health (3)	
BIOT 305	Introduction to Bioinformatics (1)	
BIOT 307	Biotechnology and Society (2)	

Course Code	Course Title	Units
BIOT 311	Biotechnology Laboratory Methods - Molecular Techniques (2)	
BIOT 312	Biotechnology Laboratory Methods - Microbial and Cell Culture Techniques (2)	
BIOT 499	Experimental Offering in Biology (0.5 - 4)	
NATR 300	Introduction to Natural Resource Conservation and Policy (4)	
NATR 301	Introduction to Ornithology (4)	
NATR 302	Introduction to Wildlife Biology (4)	
NATR 303	Energy and Sustainability (3)	
NATR 304	The Forest Environment (3)	
NATR 305	Fisheries Ecology and Management (4)	
NATR 306	Introduction to Rangeland Ecology and Management (4)	
NATR 307	Principles of Sustainability (4)	
NATR 310	Study Design and Field Methods (4)	
NATR 320	Principles of Ecology (4)	
NATR 322	Environmental Restoration (3)	
NATR 324	Field Studies: Birds and Plants of the High Sierra (2)	
NATR 330	Native Trees and Shrubs of California (4)	
NATR 332	Wildflowers of California (4)	
NATR 346	Water Resources and Conservation (3)	
NATR 495	Independent Studies in Natural Resources (1 - 3)	
NATR 499	Experimental Offering in Natural Resources (0.5 - 4)	
PSYC 310	Biological Psychology (3)	
PSYC 311	Biological Psychology Laboratory (1)	
Total Units:		**18**

[1]must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science

The General Science Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate new and accepted ideas about the natural universe using scientific methods.
- analyze a wide variety of natural phenomena using basic definitions and fundamental theories of biological or physical sciences.
- apply appropriate quantitative and qualitative methods to interpret and analyze pertinent data.
- outline the basic concepts and fundamental theories of a natural science.
- articulate orally and/or in writing the importance of continuous examination and modification of accepted ideas as a fundamental element in the progress of science.
- discuss ethical components of scientific decision making and apply personal and social values within the process of decision making in scientific endeavors.

Certificate of Achievement

Biotechnology Certificate

This certificate provides the theory and skills necessary for entry into the biotechnology field, which uses cellular and molecular biology processes for industry or research. Course work includes practical laboratory skills with emphasis on good laboratory practice, quality control, and regulatory issues in the biotechnology workplace. This certificate is suitable for preparing the student for the biotechnology workplace at the support personnel level.

Certificate Requirements

Course Code	Course Title	Units
BIOL C1000	Introduction to Biology with Lab (4)	4 - 5
or BIOL 310	General Biology (4)	
or BIOL 400	Principles of Biology (5)	
or BIOL 440	General Microbiology (4)	

Course Code	Course Title	Units
or BIOL 442	General Microbiology and Public Health (5)	
BIOT 301	Biotechnology and Human Health	3
BIOT 311	Biotechnology Laboratory Methods - Molecular Techniques	2
BIOT 312	Biotechnology Laboratory Methods - Microbial and Cell Culture Techniques	2
CHEM 305	Introduction to Chemistry (5)	5
or CHEM 309	Integrated General, Organic, and Biological Chemistry (5)	
or CHEM 400	General Chemistry I (5)	
ENGL C1000	Academic Reading and Writing	3
STAT C1000	Introduction to Statistics (4)	4
A minimum of 1 unit from the following:		1
BIOT 305	Introduction to Bioinformatics (1)	
or BIOT 307	Biotechnology and Society (2)	
or BIOT 498	Work Experience in Biotechnology (0.5 - 4)	
Total Units:		**24 - 25**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply biological and chemical concepts to biotechnology research and its practical applications.
- demonstrate biotechnology laboratory procedures involving protein and DNA techniques, cell culture methods, and solution preparation.
- design and interpret experiments involving biotechnology laboratory procedures.
- evaluate biotechnology laboratory practices in the context of good laboratory practice, quality control, and regulatory issues.
- assess the impact of biotechnology on social and ethical issues.

Career Information

This certificate prepares the student for entry-level work in the bioscience industry in the areas of research and development, production, clinical testing, and diagnostic work. Potential employers include biotechnology and pharmaceutical companies, as well as laboratories in hospitals, government, and universities.

Biology (BIOL) Courses

BIOL 103 Human Anatomy for Funeral Services

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Corequisite: FSE 300

Enrollment Limitation: An off-site clinical laboratory component of the course may require a background check, drug screening, and testing for hepatitis B.

This course is an intensive study of the structure of the human body. It covers the basic terminology of anatomy, microscopic anatomy, the four major tissue types, and all the organ systems of the human body. Topics include the following systems: integumentary, skeletal, muscular, nervous, cardiovascular, respiratory, digestive, urinary, and reproductive. Laboratory assignments develop skills of observation, investigation, and identification of selected structures. It emphasizes the regions and structures relevant to embalming techniques through the dissection of a human cadaver. This course is designed for students preparing for a career in funeral service.

BIOL 130 Microbiology for Funeral Service

Units: 3

Hours: 54 hours LEC

Prerequisite: CHEM 130 with a grade of "C" or better

Corequisite: FSE 312 and 330

Advisory: BIOL 300 with a grade of "C" or better

This course covers a survey of the basic principles of microbiology. It relates these principles to Funeral Service Education especially as they pertain to sanitation, disinfection, public health, infectious disease, and embalming practice.

BIOL 295 Independent Studies in Biology

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

BIOL 299 Experimental Offering in Biology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

BIOL 300 The Foundations of Biology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitations: BIOL 300, BIOL C1000/303 and BIOL 310 combined: maximum credit, 1 course; No credit for BIOL 300, BIOL C1000/303 or BIOL 310 if taken after BIOL 400.)

General Education: Local GE L5; Cal-GETC Area 5B

This course for non-science majors covers basic biological principles and how they relate to humans. Topics include an introduction to the philosophy of science and basic cell chemistry, structure, and physiology. An introduction to basic genetics (transmission and molecular) as well as some biotechnology principles are discussed. Additionally, human body systems, evolution, reproduction and development, as well as ecology and human impacts on the environment are addressed.

BIOL 301 Evolution

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B

This non-science majors course is an introduction to evolutionary biology. It explores the history of life and the mechanisms that give rise to the diversity of life on earth. Topics include the scientific method, the history of evolutionary thought, the origins of life, population genetics, speciation, evolutionary developmental biology and systematics.

BIOL C1000 Introduction to Biology with Lab

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC (UC credit limitations: BIOL 300, BIOL C1000/303 and BIOL 310 combined: maximum credit, 1 course; No credit for BIOL 300, BIOL C1000/303 or BIOL 310 if taken after BIOL 400.)

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

This course was formerly known as BIOL 303 Survey of Biology.

This combined lecture and laboratory course provides the non-biology major with an introduction to living things and their environment. Students use experimentation and investigation to develop important critical thinking skills. Students learn about the process of science, the building blocks of life, the role and regulation of DNA, how populations change over time, the movement of energy within and between life forms, and how species interact with each other and their surroundings. By the end of the course, students will be able to apply an understanding of biological concepts to current issues and their impacts on society. This course was formerly known as BIOL 303 and is not open to students who have successfully completed BIOL 303.

BIOL 304 Essentials of Human Anatomy and Physiology

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

This course examines body systems from an anatomical and physiological point of view. The basic anatomy and physiology of all the body systems are covered with an emphasis on developing vocabulary in each area. This course is an

introductory course for health career programs, such as Healthcare Interpreting, Gerontology Health Care, and Funeral Service that require one semester of combined Anatomy and Physiology. This course is not open to students who have successfully completed BIOL 102.

BIOL 305 Natural History

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

This course covers basic biological and ecological principles to explain the origin and diversity of living organisms. Topics range from landscape formation and habitats to the adaptations organisms have evolved to live in their environment. Although this is a broad survey course, it emphasizes California environments. Dissection is not part of this curriculum. This course is designed as an introductory course and for non-majors who enjoy the outdoors. Field trips may be required.

BIOL 310 General Biology

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitations: BIOL 300, BIOL C1000/303 and BIOL 310 combined: maximum credit, 1 course; No credit for BIOL 300, BIOL C1000/303 or BIOL 310 if taken after BIOL 400.)

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

This laboratory course for non-science majors covers basic biological principles and how they relate to humans. Concepts include cell chemistry, structure, and physiology; genetics (transmission and molecular); biotechnology; human body systems; evolution; reproduction and development; ecology; and human impacts on the environment.

BIOL 322 Ethnobotany

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

This course focuses on the multicultural use of plants. Emphasis is on the identification and use of plants from several cultures including the American Indians, Europeans, South Americans, and Chinese. Topics include the use of plants for food, medicine, basketry, technology, shelter, and music. Sight recognition of plants is emphasized. An analysis of ethnicity and ethnocentrism is also included. Field trips may be required.

BIOL 332 Introduction to Ornithology

Same As: NATR 301

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

This introductory course covers the biology and natural history of birds. Topics include evolutionary origins of birds and of flight, avian anatomy and physiology, and bird behavior, such as migration, song, feeding ecology, and mating systems. Conservation strategies are also investigated. Laboratory work explores bird structure and function, taxonomic classification, and species identification, particularly of those found in California and the western United States. Field trips may be required. This course is not open to students who have completed NATR 301.

BIOL 342 The New Plagues: New and Ancient Infectious Diseases Threatening World Health

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Local GE L7B; Cal-GETC Area 5B

This course explores the biology, epidemiology, and pathology of selected pathogens such as prions, viruses, bacteria, protozoa, fungi, and helminths that threaten public health on

a global scale. It explores the interaction between human behavior and disease agents on the emergence of new infectious agents and the re-emergence of ancient plagues.

BIOL 352 Conservation Biology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B

This course introduces biological and ecological principles involved in understanding and analyzing environmental problems and exploring scientifically sound conservation approaches. Major topics include forms and patterns of biodiversity, values of biodiversity, threats to biodiversity, conservation at the population and species levels, applied conservation biology, and conservation and sustainable development at the local, regional, national, and international levels. It places emphasis on scientific processes and methodology, while also examining the economic, social, political, and ethical aspects of conservation issues. Course themes are explored through extensive use of interactive case studies, discussion, and activities surrounding relevant current events. Field trips may be required.

BIOL 370 Marine Biology

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

This course is an introduction to marine biology. It includes the study of cell biology, evolution, physical oceanography, marine algae, marine vertebrate and invertebrate animals, and the ecology of various marine zones. Field trips focusing on the Central and Northern California coast are required and serve as the laboratory component of this course. Field experiences may include but are not limited to natural history of the rocky intertidal, invertebrate identification, salt marsh ecology, sandy beach ecology, or estuary ecology. This course is not open to students who have completed BIOL 482.

BIOL 375 Marine Ecology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B

This course for non-science majors is an introduction to the marine physical environment, the diversity of marine life, and the complex interactions between the two. It uses the marine environment as a model for introducing the key concepts of the scientific method, ecology, evolution, biodiversity, and sustainability.

BIOL 390 Natural History Field Study

Units: 0.5 - 4

Hours: 3 - 24 hours LEC; 18 - 144 hours LAB

Prerequisite: None.

Transferable: CSU

This course focuses on the ecology and natural history of specific habitats of biological interest. Course content varies according to field destination but may include topics in botany, zoology, marine, conservation, and geography. Field study methodology and tools are also covered. Field trips are required and field trip expense fees may be required.

BIOL 400 Principles of Biology

Units: 5

Hours: 54 hours LEC; 108 hours LAB

Prerequisite: CHEM 400 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitation: No credit for BIOL 300, BIOL 303 or BIOL 310 if taken after BIOL 400.)

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

C-ID: C-ID BIOL 190; Part of C-ID BIOL 135S

This course introduces biological concepts important for a general understanding and background for biology majors and pre-professional programs. Emphasis is on the scientific method and basic processes common to all forms of life. Topics include cell structure and function, cell physiology, cell reproduction, Mendelian and molecular genetics, evolution, and ecology.

BIOL 410 Principles of Botany

Units: 5

Hours: 54 hours LEC; 108 hours LAB

Prerequisite: BIOL 400 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

C-ID: C-ID BIOL 155; Part of C-ID BIOL 130S; Part of C-ID BIOL 135S

This course covers the general principles of botany for science majors. It builds upon and applies concepts developed in cell and molecular biology to the study of plants. It covers the anatomy and physiology, morphology, ecology, diversity, and evolution of higher plants. Thorough cladistic analysis is used to study phylogenetic relationships among the cyanobacteria, protists, fungi, and all major plant phyla. It also covers general ecological principles. Field trips may be required.

BIOL 415 Introduction to Biology: Biodiversity, Evolution, and Ecology

Units: 5

Hours: 54 hours LEC; 108 hours LAB

Prerequisite: BIOL 400 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

C-ID: C-ID BIOL 140; Part of C-ID BIOL 135S

This course, intended for science majors, introduces the ecological and evolutionary processes that shape biodiversity, relating the patterns of biodiversity to small and large scale environmental effects. The diversity of life on Earth (including animals, plants, fungi, protists, and additional unicellular organisms) is covered. Overarching themes include evolutionary mechanisms, phylogenetic analysis, interactions of organisms with the environment, and global processes and patterns. Not open for credit to students who have completed BIOL 410 and BIOL 420 with a grade of C or better. Field trips may be required.

BIOL 420 Principles of Zoology

Units: 5

Hours: 54 hours LEC; 108 hours LAB

Prerequisite: BIOL 400 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

C-ID: C-ID BIOL 150; Part of C-ID BIOL 130S; Part of C-ID BIOL 135S

This course covers general principles of zoology. Topics covered include a survey of the animal kingdom, embryology, evolution, systematics, ecology, and comparative anatomy and physiology. Field trips may be required.

BIOL 430 Anatomy and Physiology

Units: 5

Hours: 54 hours LEC; 108 hours LAB

Prerequisite: CHEM 305, 309, or 400 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

C-ID: Part of C-ID BIOL 115S

This course emphasizes the integration of structure and function of the human body. It is built on the study of anatomical terminology, cells, and tissues, followed by expansion into the integumentary, skeletal, muscular, and nervous systems. Laboratory study is enhanced by the microscopic investigation of tissues, examination of anatomical models, cadavers, and the dissection of preserved material. Laboratory activities may also include both wet-lab experiments and computer simulations. BIOL 431 must be subsequently taken to complete the study of all major body systems.

BIOL 431 Anatomy and Physiology

Units: 5

Hours: 54 hours LEC; 108 hours LAB

Prerequisite: BIOL 430 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

C-ID: Part of C-ID BIOL 115S

This lecture and laboratory course in human anatomy and physiology emphasizes the integration of structure and function. It provides students with an understanding of the structure, function, and regulation of the human body through the physiological integration of the following systems:

cardiovascular, lymphatic, respiratory, digestive, urinary, endocrine, and reproductive. Laboratory study is enhanced by the microscopic study of tissues, examination of anatomical models, and the dissection of preserved material. Laboratory activity is also enhanced by the examination of whole cadavers as well as prosected head, torso, upper and lower extremities, and individual organs. Laboratory activities also include both wet-lab experiments and computer simulations. Both BIOL 430 and BIOL 431 must be taken to complete the study of all major body systems.

BIOL 440 General Microbiology

Units: 4

Hours: 54 hours LEC; 72 hours LAB

Prerequisite: CHEM 305, 309, or 400 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340; AND Completion of BIOL 300 or CHEM 306 with a grade of "C" or better.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

This course introduces microorganisms and their effects on human health. It examines the structure, physiology, metabolism, and genetics of microorganisms. Laboratory work includes aseptic technique, morphological and biochemical properties of microorganisms, and medically relevant issues regarding microorganisms.

BIOL 442 General Microbiology and Public Health

Units: 5

Hours: 54 hours LEC; 108 hours LAB

Prerequisite: CHEM 305 with a grade of "C" or better and one of the following: BIOL 300, BIOL 303, BIOL 310, or BIOL 431 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

This course provides a survey of bacteria, viruses, fungi, protozoa, and helminths that are associated with human infectious diseases and public health. It examines their cellular and molecular structure, physiology, metabolism, and genetics. Laboratory work introduces methods for cultivating and characterizing microorganisms.

BIOL 482 Honors Marine Biology

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: Eligibility for the ARC Honors Program.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

This course is an honors level introduction to marine biology. It differs from the non-honors course primarily in 3 ways. First, it frequently employs a seminar style, requiring that students take a larger role in presentation of course content. Second, it uses an expanded reading list, supplementing the textbook with journal articles. Third, its exams use entirely subjective questions, requiring a deeper level of analysis. The course explores physical oceanography, marine algae, marine vertebrate and invertebrate animals, and the ecology of various marine zones. Field trips focusing on intertidal organisms of the Central and Northern California Coast are required. Field experiences may include but are not limited to designing and conducting experiments in the rocky intertidal, invertebrate identification, salt marsh ecology, sandy beach ecology, estuary ecology, or comparative anatomy of fishes. The course is not open to students who have completed BIOL 370.

BIOL 491 Science Skills and Applications II

Units: 0.5

Hours: 27 hours LAB

Prerequisite: None.

Corequisite: Current enrollment in a science, nutrition, or nursing course.

Transferable: CSU

This course offers individualized instructional modules designed to acquire or improve study strategies for science, nursing, or nutrition courses. Strategies include goal setting, the intensive study cycle, graphic organizers, constructing and interpreting graphs, mastering science vocabulary, self monitoring while reading, coding method of reading, and advanced problem solving. This course is offered in a flexible TBA format of 27 laboratory hours to accommodate the student's schedule. Registration is open through the ninth week of the semester. Pass/No Pass only.

BIOL 495 Independent Studies in Biology

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

BIOL 499 Experimental Offering in Biology

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Biology - Field Studies (BIOLFS) Courses

BIOLFS 499 Experimental Offering in Biology Field Studies

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Biotechnology (BIOT) Courses

BIOT 301 Biotechnology and Human Health

Units: 3

Hours: 54 hours LEC

Prerequisite: BIOL C1000, BIOL 310, BIOL 400, BIOL 440, BIOL 442, or BIOT 307 with a grade of "C" or better

Transferable: CSU; UC

This course introduces biotechnology as it pertains to human health and disease. Topics include an introduction to molecular biology and genetics, recombinant DNA technology, biopharmaceutical products, forensics and genetic testing, stem cells and regenerative medicine, genomics and bioinformatics, and ethical issues arising from biotechnology disease diagnosis and treatment.

BIOT 305 Introduction to Bioinformatics

Units: 1

Hours: 14 hours LEC; 14 hours LAB

Prerequisite: BIOL C1000, BIOL 310, BIOL 400, BIOL 440, BIOL 442, BIOT 301, or BIOT 307 with a grade of "C" or better

Transferable: CSU

This course examines the basic concepts and techniques in bioinformatics, the computer analysis of nucleic acids and proteins. Topics include biotechnology databases, database searching, structure and function analysis of biological molecules, sequence alignment and analysis, and biological applications of bioinformatics.

BIOT 307 Biotechnology and Society

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Transferable: CSU; UC

This course examines the scientific and social impact of biotechnology by introducing basic technical concepts to examine recent advances. Topics include biotechnology applications in medicine, agriculture, industry, and the environment, and their ethical implications and public perception.

BIOT 311 Biotechnology Laboratory Methods - Molecular Techniques

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: BIOL 300, BIOL C1000, BIOL 310, BIOL 400, BIOL 440, BIOL 442, or BIOT 307 with a grade of "C" or better

Transferable: CSU

This course covers basic concepts and techniques to work effectively in a bioscience laboratory. Topics include laboratory solution preparation, recombinant DNA methods and nucleic acid analysis techniques, protein separation and analytical techniques, good laboratory practice, and product quality issues.

BIOT 312 Biotechnology Laboratory Methods - Microbial and Cell Culture Techniques

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: BIOL 300, BIOL C1000, BIOL 310, BIOL 400, BIOL 440, BIOL 442, or BIOT 307 with a grade of "C" or better

Transferable: CSU

This course covers basic concepts and techniques to work effectively in a bioscience laboratory. Topics include media preparation, microbial and plant cell culture techniques, biosafety guidelines, and DNA and enzyme diagnostic techniques.

BIOT 498 Work Experience in Biotechnology

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Biotechnology Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of biotechnology. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

BIOT 499 Experimental Offering in Biology

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Biomedical Equipment Technology

Overview

The Biomedical Equipment Technology program prepares students for careers as biomedical equipment technicians (BMETs). The curriculum focuses on the theory, operation, maintenance, troubleshooting, and certification of essential medical devices used in hospitals and clinics, such as ultrasound machines, respiratory therapy ventilators, and X-ray imaging systems. Students can pursue either an Associate of Science (AS) degree or a Certificate of Achievement, both of which provide hands-on experience and technical instruction in semiconductor technology, medical networking, and industrial communication. Graduates are equipped for entry-level roles maintaining complex diagnostic and life-support equipment, a field projected to see steady job growth in the Sacramento region.

Degrees and Certificates Offered

A.S. in Biomedical Equipment Technology

Biomedical Equipment Technology Certificate

Dean: Jon Wedding

Department Chair: Jordan Meyer

Phone: (916) 484-8588

Email: askhb-mct@arc.losrios.edu

Associate Degree

A.S. in Biomedical Equipment Technology

This degree covers the theory, operation, maintenance, troubleshooting, and certification of biomedical equipment used in hospitals, medical device manufacturers, or other service organizations. It includes an in-depth study of frequently used medical equipment.

Degree Requirements

Course Code	Course Title	Units
First Semester:		
ET 302	Principles of Electricity and Electronics	4
Second Semester (Fall Semester Only):		
BMET 425	Introduction to Biomedical Equipment Technology	4
Second or Other Semesters:		
ET 253	Industrial Communication Systems Support	4
ET 322	Semiconductors and Nanotechnology	4
ET 335	Integrated Circuits with Computer Applications	4
ET 380	Introduction to Electronic Communications	4
ET 420	Microcontrollers and Digital Signal Processors	4
Third Semester (Spring Semester Only):		
BMET 426	Advanced Biomedical Equipment Technology	4
Third or Other Semesters:		
A minimum of 2 units from the following:		2
BMET 260	Introduction to Medical Ultrasound Equipment (0.5)	
BMET 261	Introduction to Biomedical Equipment Networking (1)	
BMET 262	Introduction to Respiratory Therapy Ventilators (0.5)	
BMET 263	Introduction to Medical X-ray Imaging Equipment (1)	
Total Units:		**34**

The Biomedical Equipment Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate the data from basic preventive maintenance tests on the following equipment: multi-parameter physiological monitor, electrocardiogram (ECG) machine, blood pressure monitor, defibrillator, pulse oximeter, infusion pump, and electrosurgical unit.
- distinguish and list various medical imaging technologies.
- set up standard electrical measurement tools and differentiate the uses for calibration and troubleshooting of medical equipment.
- set up the following equipment: multi-parameter physiological monitor, ECG machine, blood pressure monitor, defibrillator, pulse oximeter, infusion pump, and electrosurgical unit.
- categorize biopotentials and electrodes as they relate to basic human anatomy and physiology systems.
- associate the applicable regulation with the regulating organizations.
- list and compare the different types of bioelectric amplifiers, signal processing circuits, and isolation circuits.
- compare and contrast the protocols for working in the operating room and special care units in the hospital.

Certificate of Achievement

Biomedical Equipment Technology Certificate

This certificate covers the theory, operation, maintenance, troubleshooting, and certification of biomedical equipment used in hospitals, medical device manufacturers, or other service organizations. It includes an in-depth study of frequently used medical equipment.

Certificate Requirements

Course Code	Course Title	Units
BMET 261	Introduction to Biomedical Equipment Networking	1
ET 302	Principles of Electricity and Electronics	4
ET 312	Mathematics for Circuit Analysis	3
ET 322	Semiconductors and Nanotechnology (4)	4
or ET 335	Integrated Circuits with Computer Applications (4)	
or ET 380	Introduction to Electronic Communications (4)	

Course Code	Course Title	Units
BMET 425	Introduction to Biomedical Equipment Technology	4
BMET 426	Advanced Biomedical Equipment Technology	4
A minimum of 1 unit from the following:		1
BMET 260	Introduction to Medical Ultrasound Equipment (0.5)	
BMET 262	Introduction to Respiratory Therapy Ventilators (0.5)	
BMET 263	Introduction to Medical X-ray Imaging Equipment (1)	
ET 298	Work Experience in Electronics Technology (0.5 - 4)	
Total Units:		**21**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate the data from basic preventive maintenance tests on the following equipment: multi-parameter physiological monitor, electrocardiogram (ECG) machine, blood pressure monitor, defibrillator, pulse oximeter, infusion pump, and electrosurgical unit.
- distinguish and list various medical imaging technologies.
- set up standard electrical measurement tools and differentiate the uses for calibration and troubleshooting of medical equipment.
- set up the following equipment: multi-parameter physiological monitor, ECG machine, blood pressure monitor, defibrillator, pulse oximeter, infusion pump, and electrosurgical unit.
- categorize biopotentials and electrodes as they relate to basic human anatomy and physiology systems.
- associate the applicable regulation with the regulating organizations.
- list and compare the different types of bioelectric amplifiers, signal processing circuits, and isolation circuits.
- compare and contrast the protocols for working in the operating room and special care units in the hospital.

Career Information

This program prepares electronics technology students for a biomedical technician internship or trainee position.

Biomedical Equipment Technology (BMET) Courses

BMET 260 Introduction to Medical Ultrasound Equipment

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

Corequisite: BMET 425

This course provides in-depth training for maintaining ultrasound equipment used in the biomedical field. It covers imaging modes, physical principles, transducers, system block diagrams, common peripherals, Doppler effect, image quality, test equipment, and troubleshooting. This course was formerly known as ET 260 and is not open to students who have successfully completed that course.

BMET 261 Introduction to Biomedical Equipment Networking

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: ET 253 and 302

This course provides an overview of IT networking for biomedical devices. Topics include basic IT networking, network architectures for connecting medical devices, cybersecurity, medical device-related networking standards (e.g., HL-7, DICOM, FHIR), tools for testing and troubleshooting, and other related topics (e.g., working with your IT department). This course was formerly known as ET 261 and is not open to students who have successfully completed that course.

BMET 262 Introduction to Respiratory Therapy Ventilators

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

Corequisite: BMET 425

This course provides in-depth training for the maintenance of respiratory ventilation machines used in the biomedical field. It covers respiratory ventilator basics, ventilator block diagrams, patient circuits, test equipment, and troubleshooting. This course was formerly known as ET 262 and is not open to students who have successfully completed that course.

BMET 263 Introduction to Medical X-ray Imaging Equipment

Units: 1

Hours: 18 hours LEC

Prerequisite: BMET 425 with a grade of "C" or better

This course provides an introduction to the maintenance of medical X-ray imaging equipment. It covers X-ray generators, components of vacuum tube and solid state imaging chains, cameras, digitizing methods, processing, display methods, and radiation safety. This course was formerly known as ET 263 and is not open to students who have successfully completed that course.

BMET 299 Experimental Offering in Biomedical Equipment Technology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

BMET 425 Introduction to Biomedical Equipment Technology

Units: 4

Hours: 72 hours LEC

Prerequisite: ET 302 with a grade of "C" or better

Transferable: CSU

This course covers the fundamentals of biomedical equipment and the responsibilities of electronics technicians in the medical device service industry for hospitals, medical device manufacturers, or other service organizations. It includes a detailed study of the theory, operation, and maintenance of hospital equipment, systems, and procedures, and the related electronic systems. Additional topics include basic anatomy and physiology as they relate to the biomedical equipment. Field trips may be required. This course was formerly known as ET 425 and is not open to students who have successfully completed that course.

BMET 426 Advanced Biomedical Equipment Technology

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: BMET 425 with a grade of "C" or better

Transferable: CSU

This course covers the operation, maintenance, troubleshooting, and certification of biomedical equipment used in the medical device industry. It includes an in-depth, hands-on study of frequently used medical equipment, preparing electronic technology students for a biomedical technician internship or trainee position in a hospital, medical device manufacturer, or other service organization. Field trips may be required. This course was formerly known as ET 426 and is not open to students who have successfully completed that course.

BMET 499 Experimental Offering in Biomedical Equipment Technology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Business

Overview

Our business degrees, certificates, and courses are designed to provide an entrance into exciting careers, opening doors to immediate employment and/or career advancement. We offer a variety of degrees and certificates to meet students' present and future needs.

Depending on the course of study, our programs provide the skills for career opportunities as an: account executive, analyst, bank employee, buyer, clerk, data-entry clerk, data-entry specialist, entrepreneur, financial planner, government service, insurance representative, technical writer, investment counselor, manager, market research, office assistant, public administration, purchasing agent, retail/industrial sales, and stockbroker, along with many others.

Degrees and Certificates Offered

A.S.-T. in Business Administration 2.0

A.A. in Entrepreneurship

A.A. in General Business

A.S. in Business Information Technology

Computer Applications for Small Business Certificate

Cross-Cultural Conflict Resolution Certificate

Entrepreneurship/Small Business Management Certificate

General Business Certificate

Internet Marketing Certificate

Marketing Essentials Certificate

Technical Communications Certificate

Soft Skills for the Global Environment Certificate

Division Dean: Kirsten Corbin

Department Chair: Heidi Bennett

Phone: (916) 484-8361

Email: ARCBUSClerk@arc.losrios.edu

Associate Degrees for Transfer

A.S.-T. in Business Administration 2.0

The Associate in Science in Business Administration 2.0 for Transfer (AS-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Business Administration at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, §66746):
• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

All ADTs also require that students must earn a “C” or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
ACCT 301	Financial Accounting	4
ACCT 311	Managerial Accounting	4
BUS 300	Introduction to Business (3)	3
or BUS 310	Business Communications (3)	
BUS 340	Business Law (3)	3
ECON C2002	Principles of Macroeconomics	3
ECON C2001	Principles of Microeconomics	3
MATH 340	Calculus for Business and Economics (3)	3 - 5
or MATH 341	Calculus for Business and Economics (4)	
or MATH 342	Modern Business Mathematics (3)	
or MATH 355	Calculus for Biology and Medicine I (4)	
or MATH 400	Calculus I (5)	
STAT C1000	Introduction to Statistics (4)	3 - 4
or ECON 310	Statistics for Business and Economics (3)	
or PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
Total Units:		**26 - 29**

The Associate in Science in Business Administration 2.0 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 California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and explain the major functional areas of the business organizations including management, marketing, finance, and accounting.
- apply commonly used computer application programs to create relevant business documents.
- apply accounting and mathematical concepts and principles in making decisions about business operations.
- assess the relationships and interdependencies of economic, social, legal, and global environments in which businesses operate.

Career Information

Account executive, analyst, bank employee, buyer, manager, entrepreneur, financial planner, government service, insurance representative, investment counselor, public administration, purchasing agent, retail/industrial sales, stockbroker. Some options may require more than 2 years of study and additional licensing.

Associate Degrees

A.A. in Entrepreneurship

The Entrepreneurship degree provides training and education for those wishing to own or manage a small entrepreneurial venture. The various elements involved in starting and operating a small business are covered.

Degree Requirements

Course Code	Course Title	Units
BUS 105	Business Mathematics	3
BUS 210	The Business Plan	1
BUS 212	Marketing for Small Businesses	1
BUS 214	Financing a Small Business	1
BUS 216	Essential Records for the Small Business	1
BUS 300	Introduction to Business	3
BUS 320	Concepts in Personal Finance	3
BUS 340	Business Law	3
BUS 350	Small Business Management/Entrepreneurship	3
CISC 100	Computer Fundamentals with Hands-on Lab	2
MGMT 304	Principles of Management (3)	3
or MGMT 362	Techniques of Management (3)	
MKT 300	Principles of Marketing	3
A minimum of 6 units from the following:		6
ACCT 341	Computerized Accounting (3)	
ACCT 343	Computer Spreadsheet Applications for Accounting (2)	
BUSTEC 305	Introduction to Business Information Technology (3)	
BUSTEC 310	Introduction to Word/Information Processing (3)	
A minimum of 1 unit from the following:		1
BUS 218	Management Skills for the Small Business (1)	
BUS 220	Retailing and Merchandising for the Small Business (1)	
BUS 224	Customer Service (1)	
BUS 228	Selling Techniques for the Small Business (1)	
Total Units:		**34**

The Entrepreneurship Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate the feasibility of success when starting a new business venture.
- research and compose a business plan that can be used for planning as well as financing.
- employ appropriate management, finance, accounting, and marketing techniques required in operating a business.

A.A. in General Business

This degree is designed to provide a strong foundation for those entering into a variety of business fields in the private and public sector. It includes coursework that is essential for entry-level positions and enhances the knowledge base of those who are seeking career progression.

Degree Requirements

Course Code	Course Title	Units
ACCT 101	Fundamentals of College Accounting (3)	3 - 4
or ACCT 301	Financial Accounting (4)	
BUS 100	English for the Professional (3)	3
or ENGL C1000	Academic Reading and Writing (3)	
BUS 105	Business Mathematics	3
BUS 110	Business Economics (3)	3
or ECON C2002	Principles of Macroeconomics (3)	
BUS 300	Introduction to Business	3
BUS 310	Business Communications	3
BUS 320	Concepts in Personal Finance	3
BUS 340	Business Law (3)	3
CISA 305	Beginning Word Processing (2)	2
CISA 315	Introduction to Electronic Spreadsheets (2)	2
MKT 300	Principles of Marketing	3
A minimum of 6 units from the following:		6[1]
BUS, MGT, MKT, RE courses not used to fulfill other requirements for this major.		
Total Units:		**37 - 38**

[1]Work Experience (498) courses are limited to 3 units maximum towards degree requirements.

The General Business Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and explain the major functional areas of business organizations including management, marketing, finance, and accounting.
- develop leadership skills and abilities that are effective in managing a multicultural workforce.
- analyze practical business problems and utilize critical thinking and research skills in the evaluation of alternative solutions.
- apply accounting concepts and principles in making decisions about business operations.
- integrate management principles in relationship to finance, personnel, products, services, and information.
- communicate effectively verbally and in writing in various business settings.
- apply commonly used computer application programs to compose relevant business documents.

Career Information

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, retail/industrial sales.

A.S. in Business Information Technology

The Associate in Science Business Information Technology degree provides general knowledge in business and in-depth knowledge of a variety of business technology applications. Program topics include: accounting, organization and supervision of business activities, business communications, business computer applications, diversity, and intercultural communications in the workplace. The Business Information Technology A.S. degree is the final step in a stackable program consisting of the Business Information Professional I certificate, Business Information Professional II certificate, and this degree. Students who complete this degree program will have met the requirements to earn the Business Information Professional I certificate and Business Information Professional II certificate.

Degree Requirements

Course Code	Course Title	Units
ACCT 301	Financial Accounting	4
ACCT 341	Computerized Accounting	3
BUS 100	English for the Professional	3
BUS 300	Introduction to Business	3
BUS 310	Business Communications	3
BUS 312	Workplace Behavior and Ethics (3)	3
or COMM 325	Intercultural Communication (3)	
BUS 330	Managing Diversity in the Workplace	3
BUSTEC 101	Computer Keyboarding: 10-Key	1[1]
BUSTEC 126	Outlook: Basics	1
BUSTEC 300.1	Keyboarding/Applications: Beginning	1[2]
BUSTEC 300.2	Keyboarding/Applications: Document Formatting	1[3]
BUSTEC 300.3	Keyboarding/Applications: Advanced Document Formatting	1[4]
BUSTEC 305	Introduction to Business Information Technology	3
BUSTEC 310	Introduction to Word/Information Processing	3[5]
BUSTEC 332	Advanced Business Applications	3
BUSTEC 370	Business Information Technology Capstone	3
CISA 315	Introduction to Electronic Spreadsheets	2[6]
CISA 340	Presentation Graphics	2[7]
A minimum of 3 units from the following:		3
BUS 320	Concepts in Personal Finance (3)	
BUS 340	Business Law (3)	
BUS 350	Small Business Management/Entrepreneurship (3)	
ECON C2002	Principles of Macroeconomics (3)	
ECON 320	Concepts in Personal Finance (3)	
MGMT 142	Project Management Techniques and Software (3)	
MKT 300	Principles of Marketing (3)	
A minimum of 0.5 units from the following:		0.5
BUSTEC 498	Work Experience in Business Technology (0.5 - 4)	
or WEXP 498	Work Experience in (Subject) (0.5 - 4)	
Total Units:		**46.5**

[1]Substitute course, BUSTEC 307 - Computer Keyboarding and Skill Building, is available at Folsom Lake College

[2]Substitute course, BUSTEC 307 - Computer Keyboarding and Skill Building, is available at Folsom Lake College

[3]Substitute course, BUSTEC 307 - Computer Keyboarding and Skill Building, is available at Folsom Lake College

[4]Substitute course, BUSTEC 307 - Computer Keyboarding and Skill Building, is available at Folsom Lake College

[5]Substitute course, BUSTEC 360 - Word Processing Beyond the Essentials, is available at Folsom Lake College.

[6]Substitute course, BUSTEC 362 - Comprehensive Electronic Spreadsheets, is available at Folsom Lake College

[7]Substitute course, BUSTEC 366 - Electronic Presentations, is available at Folsom Lake College

The Business Information Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, plus the local ARC General Education Requirement, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate an understanding of major functional areas of business organizations including planning, management, marketing, and finance.
- demonstrate an understanding of accounting as an information system and how it is used by investors, creditors, and others to make decisions and the recording and reporting of business transactions, generally accepted accounting principles, financial statements, and statement analysis.
- demonstrate proficiency in advanced business technology applications and employ computer applications to create relevant business documents.
- demonstrate proficiency in business administration and leadership skills needed to manage a multicultural workforce.
- demonstrate customer service skills in a business environment and skills required to deliver a positive customer service experience.
- compose effective oral and written communications in various business settings.
- research, develop, evaluate, and test possible solutions using creativity, critical thinking, and technology skills.

Career Information

Business information professionals are employed in many different industries. These middle-skill occupations require more education and training than a high school diploma but less than a four-year degree, and include positions such as customer service representatives, receptionists and information clerks, and executive secretaries and executive administrative assistants. With an A.S. degree, the higher level opportunities include: business analysts, technical support specialists, and first-line supervisors of office and administrative support workers.

Certificates of Achievement

Computer Applications for Small Business Certificate

This certificate provides an overview of the specific computer related skills needed to run a small business. The focus is on word processing, electronic spreadsheets, desktop publishing, web page creation, computerized accounting, and an overview of small business/entrepreneurship.

Certificate Requirements

Course Code	Course Title	Units
ACCT 101	Fundamentals of College Accounting (3)	3 - 4
or ACCT 301	Financial Accounting (4)	
ACCT 341	Computerized Accounting	3
BUS 350	Small Business Management/Entrepreneurship	3
CISA 305	Beginning Word Processing	2
CISA 315	Introduction to Electronic Spreadsheets	2
CISA 330	Desktop Publishing	2
CISC 306	Introduction to Web Page Creation	1
Total Units:		**16 - 17**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess the ways to start a business and which form of business organization should be used
- explain the importance of a business plan, a financial plan, and a marketing plan
- apply principles of management and marketing relevant to the small business
- plan and execute strategies for working with multiple documents, templates, and macros, and apply techniques for using and editing pre-designed styles
- plan, construct, test, and evaluate worksheets that are efficient, accurate, and professional using a spreadsheet application
- create commonly used printed marketing documents using desktop publishing software
- evaluate web page content needs and design a web page
- generate and interpret various reports and financial statements in appropriate bookkeeping software

Cross-Cultural Conflict Resolution Certificate

This certificate provides the knowledge and skills needed to resolve cross-cultural conflict with both internal and external customers. It combines a theoretical understanding of conflict with the practical application of handling conflict within the context of a diverse environment.

Certificate Requirements

Course Code	Course Title	Units
BUS 317	Managing Workplace Conflict	3
BUS 330	Managing Diversity in the Workplace	3
BUS 332	Cross-Cultural Customer Service	3
SPEECH 325	Intercultural Communication	3
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- adapt communication behaviors based on cultural values and communication styles.
- analyze negotiation processes, strategies, and techniques.
- develop tactics for effective conflict management and resolution.

Entrepreneurship/Small Business Management Certificate

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

Certificate Requirements

Course Code	Course Title	Units
BUS 210	The Business Plan	1
BUS 212	Marketing for Small Businesses	1
BUS 214	Financing a Small Business	1
BUS 216	Essential Records for the Small Business	1
BUS 350	Small Business Management/Entrepreneurship	3
CISC 100	Computer Fundamentals with Hands-on Lab	2
A minimum of 8 units from the following:		8
ACCT 121	Payroll Accounting (3)	
ACCT 341	Computerized Accounting (3)	
BUS 218	Management Skills for the Small Business (1)	
BUS 220	Retailing and Merchandising for the Small Business (1)	
BUS 224	Customer Service (1)	
BUS 228	Selling Techniques for the Small Business (1)	
BUS 300	Introduction to Business (3)	
BUS 340	Business Law (3)	
CISA 305	Beginning Word Processing (2)	
CISA 315	Introduction to Electronic Spreadsheets (2)	
MKT 300	Principles of Marketing (3)	
MKT 312	Retailing (3)	
MKT 314	Advertising (3)	
Total Units:		**17**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- create a business plan that covers all facets of operating a business.
- organize and manage the different business functions necessary for ongoing operations.
- appraise and evaluate business opportunities.

General Business Certificate

The General Business certificate provides an overview of the various disciplines in business such as management, marketing, accounting and finance. It is intended to meet the needs of students who wish to develop, retrain or upgrade skills.

Certificate Requirements

Course Code	Course Title	Units
ACCT 101	Fundamentals of College Accounting (3)	3 - 4
or ACCT 301	Financial Accounting (4)	
BUS 100	English for the Professional (3)	3
or ENGL C1000	Academic Reading and Writing (3)	
BUS 300	Introduction to Business	3
BUS 310	Business Communications	3
BUS 340	Business Law	3
CISC 100	Computer Fundamentals with Hands-on Lab	2
MGMT 304	Principles of Management	3
MKT 300	Principles of Marketing	3
A minimum of 5 units from the following:		5
BUS 330	Managing Diversity in the Workplace (3)	

Course Code	Course Title	Units
MGMT 362	Techniques of Management (3)	
BUS 224	Customer Service (1)	
BUS 210	The Business Plan (1)	
BUS 212	Marketing for Small Businesses (1)	
BUS 214	Financing a Small Business (1)	
BUS 350	Small Business Management/Entrepreneurship (3)	
CISA 340	Presentation Graphics (2)	
CISA 320	Introduction to Database Management (1)	
CISA 315	Introduction to Electronic Spreadsheets (2)	
CISA 305	Beginning Word Processing (2)	
BUS 216	Essential Records for the Small Business (1)	
BUS 218	Management Skills for the Small Business (1)	
Total Units:		**28 - 29**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- Identify the functions of management and apply them in business situations.
- Analyze written communication.
- Evaluate and apply the basic concepts of marketing in both for-profit and non-profit organization.
- Develop leadership skills and abilities that are effective in managing a multicultural workforce.
- Apply commonly used computer application programs to create relevant business documents.
- Apply business mathematics in order to analyze data and solve business problems.
- Explain small business practices such as record-keeping, financing, marketing, and creating a business plan.
- Compose effective business documents.

Internet Marketing Certificate

This certificate offers a program of study for students seeking jobs that require skills in technical marketing applications. It provides opportunities to combine traditional marketing theory with the technical skills needed in today's business environment. Courses address current technology-based business communications, marketing, Internet strategies, applications, and trends.

Certificate Requirements

Course Code	Course Title	Units
CISA 330	Desktop Publishing	2
CISA 340	Presentation Graphics	2
CISA 345	Technical Marketing Applications	2
CISA 346	Social Media Applications	1
CISW 350	Imaging for the Web	1
BUS 100	English for the Professional	3
MKT 330	Internet Marketing	3
Total Units:		**14**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and create effective Internet marketing strategies that enhance business relationships with present and future customers.
- apply communication theory, effective writing techniques, and presentation skills to business situations.
- utilize software applications designed to present and promote business in print and visual media.
- devise a marketing plan using social media applications and content platforms for marketing both small and large businesses.
- analyze various software applications for Search Engine Optimization (SEO), analytic tools, web-building and blog applications, email marketing, and other technical marketing tools.

Career Information

Career opportunities include titles such as social media administrator, digital marketing director, campaign specialist, marketing/events coordinator, media marketing, social media squad, Internet marketing communications, and communications and social media coordinator.

Marketing Essentials Certificate

This certificate provides an introductory overview of the various aspects of marketing, such as target marketing, marketing strategy, advertising, professional selling, retailing, public relations, social media, and customer service. It is intended to meet the needs of employed students who wish to upgrade their marketing skills, as well as those students who are seeking entry-level marketing positions.

Certificate Requirements

Course Code	Course Title	Units
MKT 300	Principles of Marketing	3
MKT 310	Selling Professionally	3

Course Code	Course Title	Units
MKT 312	Retailing	3
MKT 314	Advertising	3
MKT 330	Internet Marketing	3
Total Units:		**15**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze the philosophy of the marketing concept, and the importance of customer satisfaction.
- discover the function and elements of the marketing mix.
- incorporate strategies for planning, producing, and selecting the appropriate advertising media, and creating an advertising campaign.
- demonstrate professional selling skills, including sales presentations.
- evaluate principles of retailing, such as store location, store layout and design, pricing, human resource management, and promotional methods.
- compare and contrast various e-marketing tools, such as websites and social media.

Career Information

Marketing, selling, advertising, public relations, and marketing management positions, for profit and non-profit organizations. Also, enhancing marketing skills for the entrepreneur and small business owner.

Technical Communications Certificate

This certificate offers an interdisciplinary program of courses in Technical Communications, Art/New Media, and Computer Information Systems to prepare students for a variety of technical writing and professional communication careers. The certificate includes the theory, writing skills, design background, and computer applications knowledge needed for jobs in technical communication.

Certificate Requirements

Course Code	Course Title	Units
ARTNM 352	Design for Publication (3)	2 - 3
or CISA 330	Desktop Publishing (2)	
CISA 305	Beginning Word Processing (2)	2 - 3
or BUSTEC 310	Introduction to Word/Information Processing (3)	
CISW 300	Web Publishing	3
A minimum of 3 units from the following:		3
Course Code	**Course Title**	**Units**
BUS 100	English for the Professional (3)	
BUS 310	Business Communications (3)	
CISW 321	Web Site Development (3)	
Total Units:		**10 - 12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze audience information needs.
- compose concise, clearly written professional documents organized with the audiences' needs in mind.
- design print and online resources that communicate organizations' values, enhance readability, and are easy to use.
- demonstrate basic skills in the use of word processing, page design, and web design applications.
- evaluate organizations' communication goals and needs based on technical writing principles.

Career Information

Technical communicators find employment in medical, scientific, high tech, business, university, and government settings. They may write white papers, tutorials, reference and procedure manuals, help systems, user assistance video scripts, grants and proposals, and more.

Certificate

Soft Skills for the Global Environment Certificate

This certificate covers the leadership skills and abilities needed to manage a multicultural workplace, while focusing on the skills needed to most effectively communicate with employees, colleagues, customers, and vendors. Emphasis is placed on how to develop a greater understanding and skill-set from a cross-cultural perspective.

Certificate Requirements

Course Code	Course Title	Units
BUS 317	Managing Workplace Conflict	3
BUS 330	Managing Diversity in the Workplace	3
BUS 332	Cross-Cultural Customer Service	3
MGMT 360	Management Communication	3
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- adapt to different customer behavior styles.
- evaluate verbal and non-verbal cues in appraising a situation.
- apply positive communication and listening techniques.
- develop strategies for service recovery.
- communicate effectively with a diverse customer population.
- analyze organization challenges to formulate solutions to improve communication.
- describe elements of a sound customer service program.

Business (BUS) Courses

BUS 100 English for the Professional

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: BUSTEC 300.1 with a grade of "C" or better

This course prepares students for professional business communication and BUS 310: Business Communications. 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 and employment document formatting. It emphasizes critical thinking and effective writing techniques by analyzing written communication and composing and organizing paragraphs into effective business documents. Proofreading skills are stressed throughout the course.

BUS 105 Business Mathematics

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

General Education: Local GE L2

This course reviews basic mathematical skills and introduces equations and formulas in solving for unknowns. Calculations for banking, commercial discounts, retail and wholesale markup-markdown, payroll computations, simple and compound interest, bank discount, present value, taxes, insurance, depreciation, and financial statements are explored. This course is recommended for business majors.

BUS 110 Business Economics

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: ENGWR 102 and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better.

This course is designed for two-year Accounting, Business, Computer Information, Marketing, and Real Estate majors. Both microeconomic and macroeconomic theory are covered with the emphasis towards applications. This course does not meet ECON 302 or 304 requirements for transfer students.

BUS 210 The Business Plan

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: BUS 350; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course offers an organized, step-by-step approach to preparing a business plan. All sections of the business plan are covered.

BUS 212 Marketing for Small Businesses

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: BUS 350; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course covers how small businesses market products and services to consumers through the creation of a marketing plan. Topics include identifying target markets and utilizing the marketing mix to most effectively reach customers.

BUS 214 Financing a Small Business

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

This course covers the sources and methods of raising capital for small businesses. It explores how much money is needed and where it can be obtained, start-up costs, and projecting monthly and yearly costs. Financial ratios and key financial statements are also covered.

BUS 216 Essential Records for the Small Business

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: BUS 105 and 350 with a grade of "C" or better.

This course emphasizes the various types of records that small businesses must keep. The focus is on financial, employment, and tax records. Simple, easy-to-use record-keeping systems are covered.

BUS 218 Management Skills for the Small Business

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: Bus. 350 with a grade of "C" or better.

A small business owner must understand and motivate others to help the business reach its objectives. This course covers planning and organizing work flow, delegating responsibilities, leadership styles, decision making, stress management, and working with employee organizations, all of which help the business reach its objectives.

BUS 220 Retailing and Merchandising for the Small Business

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: BUS 105 and 350 with a "C" grade or better.

This course emphasizes retailing concepts, such as inventory control and turnover rates, selecting merchandise sources, using trade and cash discounts, pricing, markup and markdown, and shrinkage control. It also includes how to develop a merchandising plan, inventory control system, and assessing consumer behavior and demographics.

BUS 224 Customer Service

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: BUS 350

This course introduces a study of the principles involved in building and delivering effective customer service. It focuses on providing value-added service through improved attitude, improved listening, conflict management, problem solving, and successful customer service interactions.

BUS 228 Selling Techniques for the Small Business

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: BUS 350

This course focuses on those skills needed to successfully engage in the sales process of products/services. Special emphasis is given to small business owners and their needs.

BUS 250 Survey of International Business

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: BUS 300

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, international marketing, and the operation of multi-national corporations.

BUS 294 Topics in Business

Units: 0.5 - 4

Hours: 9 - 72 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course provides opportunities to study topics in business that are not included in current course offerings. Individualized topics may be developed in cooperation with business and industry to meet specialized training needs.

BUS 295 Independent Studies in Business

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

BUS 299 Experimental Offering in Business

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

BUS 300 Introduction to Business

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4

C-ID: C-ID BUS 110

This course provides a multidisciplinary examination of how culture, society, economic systems, legal, international, political, financial institutions, and human behavior interact to affect a business organization's policy and practices within the U.S. and a global society. It covers specific areas such as management, marketing, finance, accounting, economics, and computer information systems. It is a core requirement for business majors. This course provides an overview that is helpful for selecting a specific career and/or major in the field of business.

BUS 310 Business Communications

Units: 3

Hours: 54 hours LEC

Prerequisite: BUS 100 or ENGL C1000 with a grade of "C" or better

Advisory: BUSTEC 300.1

Transferable: CSU

General Education: Local GE L1A

C-ID: C-ID BUS 115

This course provides the basic concepts for understanding communication in a changing business environment and focuses on practicing the strategies and principles of effective communication in business situations. Tools to communicate effectively in a fast-paced technological, global marketplace are emphasized. This experience provides opportunities to create, edit, evaluate, and critique business documents and reports. A formal research paper using research and analytical skills, and drawing conclusions and making recommendations is required. A business presentation is prepared and delivered.

BUS 312 Workplace Behavior and Ethics

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: BUSTEC 300.1 and CISC 300 with a grade of "C" or better; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course introduces basic procedures that promote effective workplace practices. Specific topics include communicating effectively, working on teams, problem-solving, preparing and processing information, understanding business ethics, researching ethical business standards, and implementing ethical principles. Activities and techniques help to develop competencies needed in the workplace to communicate with coworkers and customers effectively.

BUS 317 Managing Workplace Conflict

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course focuses on identifying and understanding the underlying causes of workplace conflict and strategies for managing conflict effectively. It explores the impact of conflict on workplace communication, decision making, and leadership. It includes practical and strategic skills to prevent escalation of conflict and defuse disruptive behaviors.

BUS 320 Concepts in Personal Finance

Same As: ECON 320

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B

This course covers how to analyze financial affairs for lifelong decision making. It examines the basics of financial planning, analysis, and decision making in areas of budgeting, taxes, credit, money management, insurance, investments, and retirement with an emphasis on principles to develop economic decision-making skills. This course is not open to students who have completed ECON 320.

BUS 330 Managing Diversity in the Workplace

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

General Education: Local GE L4

The course examines the leadership skills and abilities needed to manage a multicultural workplace. It focuses on the workplace impact of various historical, social, and cultural experience/perspectives related to gender, age, ethnicity, and disability. Workplace issues related to the diversity of the American consumer and global consumer impact on the United States are analyzed.

BUS 332 Cross-Cultural Customer Service

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course focuses on defining and developing skills to ensure customer service satisfaction and success. Emphasis is placed on dealing with difficult situations and people from a cross-cultural perspective, and on bringing out the best in others. It provides practical, hands-on techniques for those engaged in customer contact.

BUS 340 Business Law

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340.

Transferable: CSU; UC

C-ID: C-ID BUS 125

This course focuses on the law in its relationship to the environment of business. Topics covered include the American legal system as an instrument of economic, social, and political control; sources and processes of law; contracts and sales; agency; business organization ethics; and the regulatory process.

BUS 350 Small Business Management/ Entrepreneurship

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course provides an overview of the various elements involved in starting and operating a small business. It covers developing a business plan, finding financial resources, developing personal and business goals, managing employees, meeting legal requirements, understanding marketing concepts, and other topics of interest to the entrepreneur.

BUS 495 Independent Studies in Business

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

BUS 498 Work Experience in Business

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Business Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of business. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.

This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

BUS 499 Experimental Offering in Business

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Business Technology

Overview

The degree is designed to develop advanced skills needed for upper-level administrative support and office management careers. The course work includes communication skills, organizational management, business documents and projects, teamwork, financial data, ethics, and a variety of computer and office technologies.

Degrees and Certificates Offered

A.A. in Administrative Professional

A.S. in Business Information Technology

Business Information Professional I Certificate

Business Information Professional II Certificate

Law Office Clerical Assistant Certificate

Office Assistant Certificate

Division Dean: Kirsten Corbin

Department Chair: Heidi Bennett

Phone: (916) 484-8361

Email: ARCBUSClerk@arc.losrios.edu

Associate Degrees

A.A. in Administrative Professional

This degree is designed to develop advanced skills needed for upper-level administrative support and office management careers. The course work includes communication skills, organizational management, business documents and projects, teamwork, financial data, ethics, and a variety of computer and office technologies.

Degree Requirements

Course Code	Course Title	Units
ACCT 101	Fundamentals of College Accounting (3)	3 - 4

Course Code	Course Title	Units
or ACCT 301	Financial Accounting (4)	
or BUS 105	Business Mathematics (3)	
BUS 100	English for the Professional	3
BUS 300	Introduction to Business	3
BUS 310	Business Communications	3
BUSTEC 101	Computer Keyboarding: 10-Key	1
BUSTEC 126	Outlook: Basics (1)	1
or CISA 126	Outlook: Basics (1)	
BUSTEC 127	Outlook: Tools (1)	1
or CISA 127	Outlook: Tools (1)	
BUSTEC 300.1	Keyboarding/Applications: Beginning	1
BUSTEC 305	Introduction to Business Information Technology	3
BUSTEC 310	Introduction to Word/Information Processing	3
BUSTEC 332	Advanced Business Applications	3
CISA 315	Introduction to Electronic Spreadsheets	2
CISA 320	Introduction to Database Management	1
MGMT 300	Introduction to Leadership in Action (3)	3
or MGMT 304	Principles of Management (3)	
or BUS 312	Workplace Behavior and Ethics (3)	
Total Units:		**31 - 32**

The Administrative Professional Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- manage office operations including employee supervision, records management, supplies and equipment, administrative support, financial statements, and customer service.
- evaluate business projects, generate task lists, and prioritize completion of work.
- integrate word processing, spreadsheet, database, presentation, and electronic information management systems to complete business projects.
- create, revise, and evaluate verbal and written business messages demonstrating business communication techniques.
- utilize critical thinking, problem solving, and organizational management skills to complete work independently or in a group.
- analyze ethical dilemmas, utilize ethical decision-making processes, and determine appropriate ethical behavior.

Career Information

Typical career opportunities include clerical, administrative support, and executive assistant positions with private industry, non-profit organizations, and government entities.

A.S. in Business Information Technology

The Associate in Science Business Information Technology degree provides general knowledge in business and in-depth knowledge of a variety of business technology applications. Program topics include: accounting, organization and supervision of business activities, business communications, business computer applications, diversity, and intercultural communications in the workplace. The Business Information Technology A.S. degree is the final step in a stackable program consisting of the Business Information Professional I certificate, Business Information Professional II certificate, and this degree. Students who complete this degree program will have met the requirements to earn the Business Information Professional I certificate and Business Information Professional II certificate.

Degree Requirements

Course Code	Course Title	Units
ACCT 301	Financial Accounting	4
ACCT 341	Computerized Accounting	3
BUS 100	English for the Professional	3
BUS 300	Introduction to Business	3
BUS 310	Business Communications	3
BUS 312	Workplace Behavior and Ethics (3)	3
or COMM 325	Intercultural Communication (3)	
BUS 330	Managing Diversity in the Workplace	3
BUSTEC 101	Computer Keyboarding: 10-Key	1[1]
BUSTEC 126	Outlook: Basics	1
BUSTEC 300.1	Keyboarding/Applications: Beginning	1[2]
BUSTEC 300.2	Keyboarding/Applications: Document Formatting	1[3]
BUSTEC 300.3	Keyboarding/Applications: Advanced Document Formatting	1[4]
BUSTEC 305	Introduction to Business Information Technology	3
BUSTEC 310	Introduction to Word/Information Processing	3[5]
BUSTEC 332	Advanced Business Applications	3
BUSTEC 370	Business Information Technology Capstone	3

Course Code	Course Title	Units
CISA 315	Introduction to Electronic Spreadsheets	2[6]
CISA 340	Presentation Graphics	2[7]
A minimum of 3 units from the following:		3
BUS 320	Concepts in Personal Finance (3)	
BUS 340	Business Law (3)	
BUS 350	Small Business Management/Entrepreneurship (3)	
ECON C2002	Principles of Macroeconomics (3)	
ECON 320	Concepts in Personal Finance (3)	
MGMT 142	Project Management Techniques and Software (3)	
MKT 300	Principles of Marketing (3)	
A minimum of 0.5 units from the following:		0.5
BUSTEC 498	Work Experience in Business Technology (0.5 - 4)	
or WEXP 498	Work Experience in (Subject) (0.5 - 4)	
Total Units:		**46.5**

[1]Substitute course, BUSTEC 307 - Computer Keyboarding and Skill Building, is available at Folsom Lake College

[2]Substitute course, BUSTEC 307 - Computer Keyboarding and Skill Building, is available at Folsom Lake College

[3]Substitute course, BUSTEC 307 - Computer Keyboarding and Skill Building, is available at Folsom Lake College

[4]Substitute course, BUSTEC 307 - Computer Keyboarding and Skill Building, is available at Folsom Lake College

[5]Substitute course, BUSTEC 360 - Word Processing Beyond the Essentials, is available at Folsom Lake College.

[6]Substitute course, BUSTEC 362 - Comprehensive Electronic Spreadsheets, is available at Folsom Lake College

[7]Substitute course, BUSTEC 366 - Electronic Presentations, is available at Folsom Lake College

The Business Information Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, plus the local ARC General Education Requirement, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate an understanding of major functional areas of business organizations including planning, management, marketing, and finance.
- demonstrate an understanding of accounting as an information system and how it is used by investors, creditors, and others to make decisions and the recording and reporting of business transactions, generally accepted accounting principles, financial statements, and statement analysis.
- demonstrate proficiency in advanced business technology applications and employ computer applications to create relevant business documents.
- demonstrate proficiency in business administration and leadership skills needed to manage a multicultural workforce.
- demonstrate customer service skills in a business environment and skills required to deliver a positive customer service experience.
- compose effective oral and written communications in various business settings.
- research, develop, evaluate, and test possible solutions using creativity, critical thinking, and technology skills.

Career Information

Business information professionals are employed in many different industries. These middle-skill occupations require more education and training than a high school diploma but less than a four-year degree, and include positions such as customer service representatives, receptionists and information clerks, and executive secretaries and executive administrative assistants. With an A.S. degree, the higher level opportunities include: business analysts, technical support specialists, and first-line supervisors of office and administrative support workers.

Certificates of Achievement

Business Information Professional I Certificate

The Business Information Professional I Certificate is designed for entry-level office, computer, and administrative support positions in a variety of industries. It includes courses in: oral and written business communications; computer application skills, including beginning Excel, Word, and Outlook; the fundamentals of computer systems; and critical thinking and problem solving. This certificate is a collaborative certificate and courses are available at multiple colleges. The required course list can be referenced to find more information regarding the courses available at each college. This certificate can be completed 100% online. NOTE: This is a collaborative certificate between ARC, CRC and FLC. Certificate candidates must meet with a program counselor to ensure local unit requirements are met.

Certificate Requirements

Course Code	Course Title	Units
BUS 100	English for the Professional	3
BUS 105	Business Mathematics (3)	3
or MATH 300	Introduction to Mathematical Ideas (3)	
BUSTEC 101	Computer Keyboarding: 10-Key	1[1]
BUSTEC 126	Outlook: Basics (1)	1
or CISA 126	Outlook: Basics (1)	
BUSTEC 298	Work Experience in Business Technology	0.5 -4
BUSTEC 300.1	Keyboarding/Applications: Beginning	1[2]
BUSTEC 300.2	Keyboarding/Applications: Document Formatting	1[3]
BUSTEC 305	Introduction to Business Information Technology	3
BUSTEC 310	Introduction to Word/Information Processing	3
CISA 315	Introduction to Electronic Spreadsheets	2[4]
CISA 340	Presentation Graphics	2[5]
CISC 300	Computer Familiarization	1[6]
Total Units:		**21.5 - 25**

[1] Substitute course, BUSTEC 307 Computer Keyboarding and Skill Building, is available at Folsom Lake College and Cosumnes River College

[2]Substitute course, BUSTEC 307 Computer Keyboarding and Skill Building, is available at Folsom Lake College and Cosumnes River College

[3]Substitute course, BUSTEC 307 Computer Keyboarding and Skill Building, is available at Folsom Lake College and Cosumnes River College

[4]Substitute course, BUSTEC 362 - Comprehensive Electronic Spreadsheets, is available at Folsom Lake College.

[5]Substitute course, BUSTEC 366 - Electronic Presentations, is available at Folsom Lake College.

[6]Substitute course(s), BUSTEC 309 - Computer Familiarization, is available at Folsom lake College. CISC 302 - Computer Familiarization, is available at Cosumnes River College.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate proficiency in business technology applications.
- demonstrate proficiency in business administration skills.
- demonstrate proficiency in business communication skills.
- apply customer service skills in a business environment and provide a positive customer service experience.

Career Information

The Business Information Professional Certificate prepares for entry-level positions in office, computer, and administrative support positions in a variety of industries.

Business Information Professional II Certificate

This Certificate prepares students for mid-level office and administrative support in a variety of job positions in a multitude of industries, including office and executive administrative support, office supervision, small business support, retail sales, and customer service representatives. The BIP II Certificate builds on the foundation established in the BIP I Certificate. Students gain needed skills in business and communication, in addition to skills in business applications such as Access, Excel, QuickBooks, and Word. Successful completion of this certificate prepares students to test for the Expert level certification in Microsoft Excel and Microsoft Word.

Certificate Requirements

Course Code	Course Title	Units
ACCT 301	Financial Accounting	4
ACCT 341	Computerized Accounting	3
BUS 300	Introduction to Business	3
BUS 100	English for the Professional	3
BUS 310	Business Communications	3
BUS 330	Managing Diversity in the Workplace (3)	3
or BUS 312	Workplace Behavior and Ethics (3)	
BUSTEC 332	Advanced Business Applications	3
COMM 325	Intercultural Communication (3)	3
or BUS 312	Workplace Behavior and Ethics (3)	
A minimum of 0.5 units from the following:		0.5
BUSTEC 498	Work Experience in Business Technology (0.5 - 4)	
Total Units:		**25.5**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate proficiency in advanced business technology applications.
- demonstrate proficiency in business administration and leadership skills needed to manage a multicultural workforce.

- demonstrate proficiency in business communication and understand the challenges of intercultural communications.
- demonstrate customer service skills in a business environment and provide a positive customer service experience.

Law Office Clerical Assistant Certificate

This certificate provides the skills needed for entry-level clerical positions in law offices. The course work emphasizes workforce skills including an introduction to the use of terms particular to the legal field.

This Law Office Clerical Assistant certificate is not approved by the American Bar Association and does not prepare students to work as paralegals or legal assistants under California state law.

Certificate Requirements

Course Code	Course Title	Units
BUS 312	Workplace Behavior and Ethics	3
BUSTEC 100.1	Keyboarding Skills: Beginning (1)	1
or BUSTEC 300.1	Keyboarding/Applications: Beginning (1)	
BUSTEC 100.2	Keyboarding Skills: Intermediate (1)	1
or BUSTEC 300.2	Keyboarding/Applications: Document Formatting (1)	
BUSTEC 305	Introduction to Business Information Technology	3
BUSTEC 310	Introduction to Word/Information Processing	3
PLGL 300	Introduction to Law and the American Legal System	3
PLGL 350	Law Office Management	3
Total Units:		**17**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate keyboarding competence in the legal workplace.
- solve common office problems using current business technology and software applications.
- practice effective communication with law office personnel and clients.
- apply appropriate ethical standards to the special situations encountered in a law office.
- produce written documents in appropriate formats using typical legal office technology.

Career Information

Typical career opportunities are entry-level clerical positions in a law office. In order to earn an A.A. or a Certificate to become a Legal Assistant/Paralegal, see the Legal Studies Program requirements in the Behavior and Social Sciences Division.

Certificate

Office Assistant Certificate

This certificate provides training in clerical procedures for entry-level office positions.

Certificate Requirements

Course Code	Course Title	Units
BUSTEC 101	Computer Keyboarding: 10-Key	1
BUSTEC 125	Clerical Assistant	6
BUSTEC 300.1	Keyboarding/Applications: Beginning	1
Total Units:		**8**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- perform keyboarding tasks successfully and competently in the workplace.
- solve business problems using current business technology and software applications.
- appropriately apply rules and procedures for the business environment.
- produce job search documents and demonstrate job search skills.

Career Information

Typical career opportunities are entry-level clerical positions.

Business Technology (BUSTEC) Courses

BUSTEC 100.1 Keyboarding Skills: Beginning

Units: 1

Hours: 12 hours LEC; 18 hours LAB

Prerequisite: BUSTEC 300.1 with a grade of "C" or better, or placement through the assessment process.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course helps students improve their keyboarding speed and accuracy. Individualized skill improvement plans are based on a computerized assessment of computer keyboarding speed and accuracy. This course is not open to students who have previously completed the first module of BUSTEC 100. This course is for students who know how to correctly touch type and want to improve their keyboarding speed and accuracy. Students who want to learn to correctly touch type should take BUSTEC 300.1. Pass/No Pass only.

BUSTEC 100.2 Keyboarding Skills: Intermediate

Units: 1

Hours: 12 hours LEC; 18 hours LAB

Prerequisite: BUSTEC 100.1

Advisory: Eligibility for BUS 310, ENGL C1000/C1000H (formerly ENGWR 300/480), or ESLW 340

This course helps students improve their keyboarding speed and accuracy and builds upon the skills learned in BUSTEC 100.1. Individualized skill improvement plans are based on a computerized assessment of computer keyboarding speed and accuracy. This course is not open to students who have previously completed the second module of BUSTEC 100. This course is for students who know how to correctly touch type and want to improve their keyboarding speed and accuracy. Pass/No Pass only.

BUSTEC 100.3 Keyboarding Skills: Advanced

Units: 1

Hours: 12 hours LEC; 18 hours LAB

Prerequisite: BUSTEC 100.2

Advisory: Eligibility for BUS 310, ENGL C1000/C1000H (formerly ENGWR 300/480), or ESLW 340

This course helps students improve their keyboarding speed and accuracy and builds upon the skills learned in BUSTEC 100.2. Individualized skill improvement plans are based on a computerized assessment of computer keyboarding speed and accuracy. This course is not open to students who have previously completed the third module of BUSTEC 100. This course is for students who know how to correctly touch type and want to improve their keyboarding speed and accuracy. Pass/No Pass only.

BUSTEC 101 Computer Keyboarding: 10-Key

Units: 1

Hours: 12 hours LEC; 18 hours LAB

Prerequisite: None.

Advisory: BUSTEC 300.1 with a grade of "C" or better

This course introduces the numeric keypad and alphanumeric data entry. Course content focuses on developing proper 10-key technique, speed, and accuracy. Simulated employment tests based on industry standards are included. Ten-key certification testing is completed at the end of the course.

BUSTEC 125 Clerical Assistant

Units: 6

Hours: 90 hours LEC; 54 hours LAB

Prerequisite: BUSTEC 300.1 with a grade of "C" or better; or ability to touch type at 25 wpm.

Corequisite: BUSTEC 101

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course covers the skills needed for entry-level clerical positions. Topics include word processing and spreadsheet applications; American Records Management Association (ARMA) filing procedures; office procedures and communications, including telephone, mail, email, and Internet; soft-skills; and employability skills.

BUSTEC 126 Outlook: Basics

Same As: CISA 126

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: BUSTEC 300.1

This course introduces Microsoft Outlook, the industry-leading personal information management software. Topics include understanding and navigating the Outlook environment, creating and sending email, using email special features, managing Outlook contacts, using an electronic calendar, and creating tasks and to-do items. Completion of BUSTEC 126/ CISA 126 and BUSTEC
127/CISA 127 prepares students to pass the Microsoft Office Specialist (MOS)
certification for the Microsoft Outlook application. This course is not open to students who have completed CISA 126.

BUSTEC 127 Outlook: Tools

Same As: CISA 127

Units: 1

Hours: 18 hours LEC

Prerequisite: BUSTEC 126 or CISA 126 with a grade of "C" or better

Advisory: BUSTEC 300.1 with a grade of "C" or better

This course presents the advanced personal information management tools in Outlook. Topics include working with multiple email accounts, using rules and folders, incorporating advanced calendar and contact features, collaborating using sharing and delegate features, and customizing the Outlook user interface. In addition, the course covers the integration of Outlook with other applications in the Microsoft Office suite. Completion of BUSTEC 126/CISA 126 and BUSTEC 127/CISA 127 prepares students to pass the Microsoft Office Specialist (MOS) certification for the Microsoft Outlook application. This course is not open to students who have completed CISA 127.

BUSTEC 298 Work Experience in Business Technology

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Business Technology Department faculty to review specific certificate and degree work experience requirements.

Advisory: ENGL C1000, ENGL C1000H, or ESLW 340

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of business technology. 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 Title 5 required forms which document the student's progress and hours spent at an approved worksite, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

BUSTEC 299 Experimental Offering in Business Technology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

BUSTEC 300.1 Keyboarding/Applications: Beginning

Units: 1

Hours: 12 hours LEC; 18 hours LAB

Prerequisite: None.

Advisory: Eligibility for BUS 310, ENGL C1000/C1000H (formerly ENGWR 300/480), or ESLW 340

Transferable: CSU

This course introduces touch typing of alphabetic, numeric, and symbol keys. It covers keyboarding techniques, speed-and-accuracy development, and essential computer-keyboarding information. This course is specifically designed for the beginning typist as well as those who have been typing for a long time using improper technique. This course is not open to students who have previously completed the first module of BUSTEC 300.

BUSTEC 300.2 Keyboarding/Applications: Document Formatting

Units: 1

Hours: 12 hours LEC; 18 hours LAB

Prerequisite: BUSTEC 300.1 with a grade of "C" or better

Advisory: Eligibility for BUS 310, ENGL C1000/C1000H (formerly ENGWR 300/480), or ESLW 340

Transferable: CSU

This course provides beginning to intermediate document formatting and skill development for academic, employment, personal, and businesses purposes. This course builds upon skills learned in BUSTEC 300.1 to provide students with additional computer keyboarding skills in the creation and modification of word processing documents. It covers use of an office-level word processing program to create and format business correspondence, academic reports, business reports, and tables. English grammar, spelling, punctuation, and proofreading are reinforced throughout. Timed writing tests are used to increase keyboarding speed and accuracy. This course is not open to students who have previously completed the second module of BUSTEC 300.

BUSTEC 300.3 Keyboarding/ Applications: Advanced Document Formatting

Units: 1

Hours: 12 hours LEC; 18 hours LAB

Prerequisite: BUSTEC 300.2 with a grade of "C" or better

Advisory: Eligibility for BUS 310, ENGL C1000/C1000H (formerly ENGWR 300/480), or ESLW 340

Transferable: CSU

This course provides advanced skill development of documents for business, academic, employment, or personal use. This course builds on skills learned in BUSTEC 300.2. This course includes enhancing proofreading proficiency, reinforcing communication skills, increasing speed and accuracy, and using features of a current office-level word processing program to create a variety of business documents with advanced formatting. This course is not open to students who have previously completed the third module of BUSTEC 300.

BUSTEC 305 Introduction to Business Information Technology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course prepares business professionals to use office systems, technologies, and sustainable procedures to support today's digital work environments. Topics include the use of business-related hardware and software, business communication, electronic calendars, project management, records management, business document preparation, cloud-based applications, information storage, and team collaboration. Critical thinking, problem-solving, administrative procedures, and information processing technologies are used to complete assignments and activities applicable in a business environment. Skills learned will provide a foundation in information and communications technology used in administration and management positions. This course is not open to students who have previously taken BUSTEC 110.

BUSTEC 310 Introduction to Word/ Information Processing

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: BUSTEC 100.1 or 300.1 with a grade of "C" or better

Transferable: CSU

This course is a review of basic word/information processing and introduces intermediate and advanced formatting for correspondence, tables, reports, newsletters, and other business-related documents. It emphasizes formatting and document production techniques to produce professional business documents used in today's workplace. Intermediate and advanced word processing topics include tables, columns, themes and styles, merge, graphics, macros, collaboration, and templates.

BUSTEC 332 Advanced Business Applications

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: BUSTEC 310, CISA 315, and CISA 320

Transferable: CSU

This course applies office administration skills and procedures using a suite of software. Course content integrates word processing, spreadsheet, database, presentation, and communication software to create, format, revise, share, and maintain business documents and data. Hands-on business projects require use of current office systems and incorporate problem-solving skills and real world business simulations.

BUSTEC 370 Business Information Technology Capstone

Units: 3

Hours: 54 hours LEC

Prerequisite: BUSTEC 305, BUSTEC 310, and CISA 315 with grades of "C" or better

Advisory: ENGL C1000, ENGL C1000H, ESLW 340, and MATH 300

Transferable: CSU

The Business Information Technology Capstone course serves as the culminating experience for students in the field of business information technology. Building upon foundational knowledge acquired throughout their academic journey, this course integrates theoretical concepts with practical applications to prepare students for real-world challenges in the rapidly evolving business landscape.

BUSTEC 498 Work Experience in Business Technology

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can enroll or participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's worksite. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses.

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are workplace assets and how these can be enhanced and/or developed to increase employability in the field of Business Technology. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies. During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. All students are required to attend the first course meeting, a mid-semester meeting, and a final meeting. Additionally, students who have not already successfully completed a Work Experience course will be required to attend weekly orientations while returning participants may meet individually with the instructor as needed. Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

BUSTEC 499 Experimental Offering in Business Technology

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Chemistry

Overview

American River College's chemistry program offers you a high quality education whether you are seeking to transfer to a four-year college, obtain an Associate's Degree, or seeking to obtain career technical education. The highly trained faculty in the Chemistry Department is committed to rigorous academic standards, offering a large selection of classes at a variety of day and night times, a student-friendly atmosphere, and interactive classes. Our diverse faculty is dedicated to teaching and learning. They have backgrounds that cover all aspects of chemistry. The department provides hands-on experiential learning as well as access to a nationally award-winning peer assisted tutorial program (Beacon).

Degrees Offered

A.S. in General Science

Dean: Joel Keebler

Phone: (916) 484-8107

Email: askhb-STEM@arc.losrios.edu

Associate Degree

A.S. in General Science

This program provides a broad study in the fields of biological and physical sciences in preparation for transfer to a four-year program and continuation of studies in upper division science courses.

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18[1]
Physical Science Courses		
ASTR C1001	Introduction to Astronomy (3)	
ASTR 310	The Solar System (3)	
ASTR 320	Stars, Galaxies, and Cosmology (3)	
ASTR 330	Introduction to Astrobiology (3)	
ASTR C1001L	Introduction to Astronomy Lab (1)	
ASTR 481	Honors Astronomy: Stars, Galaxies, and Cosmology (4)	
ASTR 495	Independent Studies in Astronomy (1 - 3)	
ASTR 499	Experimental Offering in Astronomy (0.5 - 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 310	Chemical Calculations (4)	
CHEM 338	Chemistry In Your World (3)	
CHEM 400	General Chemistry I (5)	
CHEM 401	General Chemistry II (5)	
CHEM 420	Organic Chemistry I (5)	
CHEM 421	Organic Chemistry II (5)	
CHEM 423	Organic Chemistry - Short Survey (5)	
CHEM 495	Independent Studies in Chemistry (1 - 3)	
CHEM 499	Experimental Offering in Chemistry (0.5 - 4)	
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)	
GEOG 307	Environmental Hazards and Natural Disasters (3)	
GEOG 308	Introduction to Oceanography (3)	
GEOG 309	Introduction to Oceanography Lab (1)	
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 495	Independent Studies in Geography (1 - 3)	
GEOG 499	Experimental Offering in Geography (0.5 - 4)	
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)	
GEOL 320	Global Climate Change (3)	
GEOL 325	Environmental Hazards and Natural Disasters (3)	
GEOL 330	Introduction to Oceanography (3)	
GEOL 331	Introduction to Oceanography Lab (1)	
GEOL 345	Geology of California (3)	
GEOL 392	Field Studies in Mountain Landscapes (1 - 4)	
GEOL 393	Field Studies in Coastal Landscapes (1 - 4)	
GEOL 394	Field Studies in Volcanic Landscapes (1 - 4)	
GEOL 495	Independent Studies in Geology (1 - 3)	

Course Code	Course Title	Units
GEOL 499	Experimental Offering in Geology (0.5 - 4)	
PHYS 310	Conceptual Physics (3)	
PHYS 311	Basic Physics (3)	
PHYS 312	Conceptual Physics Laboratory (1)	
PHYS 350	General Physics (4)	
PHYS 360	General Physics (4)	
PHYS 410	Mechanics of Solids and Fluids (5)	
PHYS 421	Electricity and Magnetism (4)	
PHYS 431	Heat, Waves, Light and Modern Physics (4)	
PHYS 495	Independent Studies in Physics (1 - 3)	
PHYS 499	Experimental Offering in Physics (0.5 - 4)	
Biological Science Courses		
ANTH 300	Biological Anthropology (3)	
ANTH 301	Biological Anthropology Laboratory (1)	
ANTH 303	Introduction to Forensic Anthropology (3)	
ANTH 370	Primatology (3)	
ANTH 480	Honors Biological Anthropology (3)	
ANTH 495	Independent Studies in Anthropology (1 - 3)	
ANTH 499	Experimental Offering in Anthropology (0.5 - 4)	
BIOL 300	The Foundations of Biology (3)	
BIOL 301	Evolution (3)	
BIOL C1000	Introduction to Biology with Lab (4)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
BIOL 305	Natural History (4)	
BIOL 310	General Biology (4)	
BIOL 322	Ethnobotany (3)	
BIOL 332	Introduction to Ornithology (4)	
BIOL 342	The New Plagues: New and Ancient Infectious Diseases Threatening World Health (3)	
BIOL 352	Conservation Biology (3)	
BIOL 370	Marine Biology (4)	
BIOL 375	Marine Ecology (3)	
BIOL 390	Natural History Field Study (0.5 - 4)	
BIOL 400	Principles of Biology (5)	
BIOL 410	Principles of Botany (5)	
BIOL 415	Introduction to Biology: Biodiversity, Evolution, and Ecology (5)	
BIOL 420	Principles of Zoology (5)	
BIOL 430	Anatomy and Physiology (5)	
BIOL 431	Anatomy and Physiology (5)	
BIOL 440	General Microbiology (4)	
BIOL 442	General Microbiology and Public Health (5)	
BIOL 482	Honors Marine Biology (4)	
BIOL 495	Independent Studies in Biology (1 - 3)	
BIOL 499	Experimental Offering in Biology (0.5 - 4)	
BIOT 301	Biotechnology and Human Health (3)	
BIOT 305	Introduction to Bioinformatics (1)	
BIOT 307	Biotechnology and Society (2)	
BIOT 311	Biotechnology Laboratory Methods - Molecular Techniques (2)	
BIOT 312	Biotechnology Laboratory Methods - Microbial and Cell Culture Techniques (2)	
BIOT 499	Experimental Offering in Biology (0.5 - 4)	
NATR 300	Introduction to Natural Resource Conservation and Policy (4)	
NATR 301	Introduction to Ornithology (4)	

Course Code	Course Title	Units
NATR 302	Introduction to Wildlife Biology (4)	
NATR 303	Energy and Sustainability (3)	
NATR 304	The Forest Environment (3)	
NATR 305	Fisheries Ecology and Management (4)	
NATR 306	Introduction to Rangeland Ecology and Management (4)	
NATR 307	Principles of Sustainability (4)	
NATR 310	Study Design and Field Methods (4)	
NATR 320	Principles of Ecology (4)	
NATR 322	Environmental Restoration (3)	
NATR 324	Field Studies: Birds and Plants of the High Sierra (2)	
NATR 330	Native Trees and Shrubs of California (4)	
NATR 332	Wildflowers of California (4)	
NATR 346	Water Resources and Conservation (3)	
NATR 495	Independent Studies in Natural Resources (1 - 3)	
NATR 499	Experimental Offering in Natural Resources (0.5 - 4)	
PSYC 310	Biological Psychology (3)	
PSYC 311	Biological Psychology Laboratory (1)	
Total Units:		**18**

[1]must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science

The General Science Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate new and accepted ideas about the natural universe using scientific methods.
- analyze a wide variety of natural phenomena using basic definitions and fundamental theories of biological or physical sciences.
- apply appropriate quantitative and qualitative methods to interpret and analyze pertinent data.
- outline the basic concepts and fundamental theories of a natural science.
- articulate orally and/or in writing the importance of continuous examination and modification of accepted ideas as a fundamental element in the progress of science.
- discuss ethical components of scientific decision making and apply personal and social values within the process of decision making in scientific endeavors.

Chemistry (CHEM) Courses

CHEM 82 Strategies for Problem Solving in Introduction to Chemistry

Units: 0.75

Hours: 40.5 hours LAB

Prerequisite: None.

Corequisite: CHEM 305; Concurrent enrollment in CHEM 305.

This course develops analytical reasoning strategies, critical thinking skills, and problem-solving abilities for both quantitative and qualitative problems in chemistry. It is designed to support students enrolled in CHEM 305 at American River College, with content that is specific to CHEM 305. Pass/No Pass only.

CHEM 83 Strategies for Problem Solving in General, Organic and Biological Chemistry

Units: 0.75

Hours: 40.5 hours LAB

Prerequisite: None.

Corequisite: CHEM 309

This course develops analytical reasoning strategies, critical thinking skills, and problem-solving abilities for both quantitative and qualitative problems in chemistry. It is designed to support students enrolled in CHEM 309 at American River College. Pass/No Pass only.

CHEM 84 Strategies for Problem Solving in General Chemistry I

Units: 0.75

Hours: 40.5 hours LAB

Prerequisite: None.

Corequisite: CHEM 400; Concurrent enrollment in CHEM 400

This course develops analytical reasoning strategies, critical thinking skills, and problem-solving abilities for both quantitative and qualitative problems in chemistry. It is designed to support students enrolled in CHEM 400 at American River College, with content specific to CHEM 400. Pass/No Pass only.

CHEM 85 Strategies for Problem Solving in Chemical Calculations

Units: 0.75

Hours: 40.5 hours LAB

Prerequisite: None.

Corequisite: CHEM 310; Concurrent enrollment in CHEM 310.

This course develops analytical reasoning strategies, critical thinking skills, and problem-solving abilities for both quantitative and qualitative problems in chemistry. It is designed to support students enrolled in CHEM 310 at American River College, with content that will be specific to CHEM 310. Pass/No Pass only.

CHEM 86 Strategies for Problem Solving in Organic Chemistry I

Units: 0.75

Hours: 40.5 hours LAB

Prerequisite: None.

Corequisite: Concurrent enrollment in CHEM 420 (Organic Chemistry I).

This course develops analytical reasoning strategies, critical thinking skills, and problem-solving abilities for both quantitative and qualitative problems in chemistry. It is designed to support students enrolled in CHEM 420 at American River College, with content specific to CHEM 420. Pass/No Pass Only.

CHEM 87 Strategies for Problem Solving in Organic Chemistry II

Units: 0.75

Hours: 40.5 hours LAB

Prerequisite: None.

Corequisite: CHEM 421

This course develops analytical reasoning strategies, critical thinking skills, and problem-solving abilities for both quantitative and qualitative problems in chemistry. It is designed to support students enrolled in CHEM 421 at American River College.

CHEM 88 Strategies for Problem Solving in Short Survey Organic Chemistry

Units: 0.75

Hours: 40.5 hours LAB

Prerequisite: None.

Corequisite: CHEM 423

This course develops analytical reasoning strategies, critical thinking skills, and problem-solving abilities for both quantitative and qualitative problems in organic chemistry. It is designed to support students enrolled in CHEM 423 at American River College.

CHEM 130 Chemistry for Funeral Service

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Corequisite: BUS 340, FSE 310, and FSE 320

Enrollment Limitation: Acceptance into the Funeral Service Education program.

This course is a survey of the basic principles of chemistry as they relate to funeral service. Topics include chemical principles involved in sanitation, disinfection, public health, and embalming practices. It also covers the development and use of personal, professional, and community sanitation practices, as well as use of and precautions related to potentially harmful chemicals that are currently used in the field of funeral service.

CHEM 305 Introduction to Chemistry

Units: 5

Hours: 72 hours LEC; 54 hours LAB

Prerequisite: Successful completion of Algebra I/ Integrated Math 1 or Beginning Algebra or through the Los Rios Math Placement Process.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC Credit Limitation: CHEM 305, CHEM 306 and CHEM 400, CHEM 401 combined: maximum credit, 1 series; No credit for CHEM 305 if taken after CHEM 400)

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

C-ID: C-ID CHEM 101; Part of C-ID PHYS 140

This course covers general principles of chemistry, such as unit analysis, atomic structure, nomenclature, mole concept, stoichiometry, and gases. It also introduces organic chemistry and biochemistry. This course is primarily designed for allied health majors.

CHEM 306 Introduction to Organic and Biological Chemistry

Units: 5

Hours: 72 hours LEC; 54 hours LAB

Prerequisite: CHEM 305 with a grade of "C" or better

Transferable: CSU; UC (UC Credit Limitation: CHEM 305, CHEM 306 and CHEM 400, CHEM 401 combined: maximum credit, 1 series)

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

C-ID: C-ID CHEM 102

This course is a continuation of CHEM 305. It covers the organic functional groups and reactions involved in the chemistry of life (biochemistry) as applied to the health sciences.

CHEM 309 Integrated General, Organic, and Biological Chemistry

Units: 5

Hours: 72 hours LEC; 54 hours LAB

Prerequisite: Successful completion of Algebra I/ Integrated Math 1 or Beginning Algebra or through the Los Rios Math Placement Process.

Corequisite: CHEM 83

Advisory: One year of high school chemistry with a grade of "C" or better; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

This course is an intensive survey of general, organic, and biological chemistry specifically designed for students majoring in nursing and other health-related fields. Topics include general chemistry, organic chemistry, and biological chemistry as they apply to the chemistry of the human body. This course satisfies the requirements of those health-career programs which require one semester of chemistry. Students enrolled in this course are strongly encouraged to co-enroll in CHEM 83.

CHEM 310 Chemical Calculations

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: Algebra II/Integrated Math 3 or Intermediate Algebra or through the Los Rios Math Placement Process.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5

This course introduces calculations, terminology, chemical techniques, and laboratory techniques. It provides intensive problem solving skills necessary for CHEM 400.

CHEM 338 Chemistry In Your World

Units: 3

Hours: 40.5 hours LEC; 40.5 hours LAB

Prerequisite: Completion of elementary algebra with a "C" or better.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

C-ID: C-ID CHEM 100

This course forms links between chemistry and various academic disciplines. It explores the connection of chemistry to each and every one of us. This course begins with an introduction to the periodic table, basic atomic structure, and compounds. It covers fundamental concepts by analyzing environmental, health, social, historical, economic, cultural, and current scientific problems in chemical contexts. It applies the scientific method, introduces essential chemical laboratory techniques, and enhances research, written and oral communication skills.

CHEM 400 General Chemistry I

Units: 5

Hours: 54 hours LEC; 108 hours LAB

Prerequisite: Successful completion of Algebra II/ Integrated Math 3 or Intermediate Algebra or through the Los Rios Math Placement Process AND one of the following: 1) CHEM 310 with a grade of "C" or better; or, 2) Previous chemistry course (such as CHEM 305, CHEM 309, or a full year of high school chemistry) with a grade of "C" or better AND a passing score on the Chemistry Assessment Test at American River College.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC Credit Limitation: CHEM 305, CHEM 306 and CHEM 400, CHEM 401 combined: maximum credit, 1 series; No credit for CHEM 305 if taken after CHEM 400)

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

C-ID: C-ID CHEM 110; Part of C-ID CHEM 120S

This course covers the basic principles of chemistry with an emphasis on chemical calculations, chemical reactions including balancing of complicated reduction-oxidation (REDOX) reactions, stoichiometry, gas laws, thermochemistry, atomic structure and bonding theories, ionic equations, solutions, intermolecular forces and phases of matter, and acid/base chemistry including titrations and pH. Laboratory work is devoted to investigations of the theoretical work discussed in lecture.

CHEM 401 General Chemistry II

Units: 5

Hours: 54 hours LEC; 108 hours LAB

Prerequisite: CHEM 400 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC Credit Limitation: CHEM 305, CHEM 306 and CHEM 400, CHEM 401 combined: maximum credit, 1 series;)

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

C-ID: Part of C-ID CHEM 120S

This course is a continuation of the principles of chemistry with emphasis on equilibria, bonding, thermodynamics, kinetics, and electrochemistry. A brief introduction to organic chemistry is included. Laboratory work is devoted to quantitative and qualitative analysis and experiments dealing with the theoretical work discussed in lecture.

CHEM 420 Organic Chemistry I

Units: 5

Hours: 54 hours LEC; 108 hours LAB

Prerequisite: CHEM 401 with a grade of "C" or better

Transferable: CSU; UC (UC Credit Limitation: CHEM 420 and CHEM 423 combined: maximum credit, 1 course)

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

C-ID: C-ID CHEM 150; Part of C-ID CHEM 160S

This course is designed to prepare students who are majoring in chemistry or chemical engineering, for transfer to a four-year institution, or to prepare students for entrance into professional schools in the fields of medicine, pharmacy, or dentistry. Emphasis is on the application of modern principles regarding structure, reactivity, methods of synthesis and physical properties of carbon compounds.

CHEM 421 Organic Chemistry II

Units: 5

Hours: 54 hours LEC; 108 hours LAB

Prerequisite: CHEM 420 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

C-ID: Part of C-ID CHEM 160S

This course covers general physical and chemical properties of aromatic compounds, ethers, carbonyl compounds, amines, carbonyl derivatives, and biological compounds of interest. It also includes mass spectrometry, ultraviolet-visible (UV-VIS) spectroscopy, and carbon-13 nuclear magnetic resonance (NMR). Special attention is given to development of reaction mechanisms, methods of organic synthesis, and instrumental analysis as they apply to organic chemistry.

CHEM 423 Organic Chemistry - Short Survey

Units: 5

Hours: 72 hours LEC; 54 hours LAB

Prerequisite: CHEM 401 with a grade of "C" or better

Transferable: CSU; UC (UC Credit Limitation: CHEM 420 and CHEM 423 combined: maximum credit, 1 course)

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

This course is a survey of carbon containing compounds with emphasis on organic compounds of biological interest. Students learn topics that include organic functional groups, infrared spectroscopy, and mechanisms of reactions. This course is designed primarily for students majoring in the life

sciences, nutrition/dietetics, and related fields. It is not recommended for students majoring in chemistry, chemical engineering, medicine, dentistry, pharmacy, or chiropractics.

CHEM 495 Independent Studies in Chemistry

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

CHEM 499 Experimental Offering in Chemistry

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Communication

Overview

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 is the ability to work effectively as a member of a group or team. Communication courses are vital to developing the communication skills necessary for personal and professional success.

Communication courses offer instruction and practice in a variety of communication settings. The program includes theory and practice in public speaking, group work, and interpersonal relationships. Critical thinking, listening, and communicating across cultures are also part of the program.

Degrees Offered

A.A.-T. in Communication Studies 2.0

Dean: Rocio Owens

Department Chair: Alisa Shubb

Phone: (916) 484-8653

Email: askhb-LAC@arc.losrios.edu

Associate Degree for Transfer

A.A.-T. in Communication Studies 2.0

The Associate in Arts in Communication Studies 2.0 for Transfer (AA-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Communication Studies, Communication, or Communications at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, Â§66746):
â€¢ 60 semester or 90 quarter CSU-transferable units
â€¢ the California General Education Transfer Curriculum (Cal-GETC) pattern
â€¢ a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district
â€¢ obtain a minimum grade point average (GPA) of 2.0

All ADTs also require that students must earn a â€œCâ€ or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
COMM C1000	Introduction to Public Speaking	3
COMM C1004	Interpersonal Communication	3
List A:		
A minimum of 9 units from the following:		9
COMM 302	Persuasive Speech (3)	
COMM 311	Argumentation and Debate (3)	
COMM 325	Intercultural Communication (3)	
COMM 331	Group Discussion (3)	
COMM 361	The Communication Experience (3)	
COMM 362	Mediated Communication (3)	

Course Code	Course Title	Units
JOUR 310	Mass Media and Society (3)	
List B:		
A minimum of 3 units from the following:		3
Any course not already used from List A or		
ANTH 310	Cultural Anthropology (3)	
or ANTH 481	Honors Cultural Anthropology (3)	
ENGL C1001	Critical Thinking and Writing (3)	
or ENGL C1003	Critical Thinking and Writing through Literature (4)	
or ENGL C1001H	Critical Thinking and Writing - Honors (3)	
JOUR 300	Newswriting and Reporting (3)	
PSYC C1000	Introduction to Psychology (3)	
or PSYC C1000H	Introduction to Psychology - Honors (3)	
SOC 300	Introductory Sociology (3)	
or SOC 480	Introductory Sociology - Honors (3)	
Total Units:		**18**

The Associate in Arts in Communication Studies 2.0 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess the factors which contribute to communication competency.
- generate strategies to communicate effectively with others in dyads, groups, and public situations.
- evaluate the role of communication in human interactions.
- analyze evidence, reasoning, and persuasive appeals for credibility, logic, and relevance.
- demonstrate skills and behaviors which contribute to open and respectful communication of diverse ideas and beliefs.

Career Information

A primary skill employers in all fields seek is effective communication. A degree in Communication Studies enriches personal development and enhances opportunities for employment and promotion in such diverse professional fields as education, law, law enforcement, health, science, management, organizational development, psychology, public service, sales, training, entertainment, and social services.

Communication (COMM) Courses

COMM C1000 Introduction to Public Speaking

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L1B; Cal-GETC Area 1C

C-ID: C-ID COMM 110

This course was formerly known as COMM 301 Introduction to Public Speaking.

In this course, students learn and apply foundational rhetorical theories and techniques of public speaking in a multicultural democratic society. Students discover, develop, and critically analyze ideas in public discourse through research, reasoning, organization, composition, delivery to a live audience and evaluation of various types of speeches, including informative and persuasive speeches. By the end of the course, students will be more confident managing public speaking anxiety and effective in oral communication situations with diverse audiences. Use of audio/video recording equipment may be required.

This course is formerly known as COMM 301 and is not open to students who have already completed COMM 301.

COMM 302 Persuasive Speech

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: COMM C1000 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L1B

C-ID: C-ID COMM 190

This course is a detailed study and practice of oral discourse in a democratic society with a focus on effective persuasion. Through an understanding of the theoretical foundations of creating and sharing knowledge, students will learn to effectively use compelling arguments to appeal to diverse audiences. Emphasis is placed on the use of proofs, language, delivery, and ethical practices. Audio- and/or video-recording equipment may be used as an aid for self-analysis and improvement. This course is formerly known as SPEECH 302.

COMM 311 Argumentation and Debate

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: COMM C1000, ENGL C1000, or ENGL C1000H

Transferable: CSU; UC

General Education: Local GE L1B

C-ID: C-ID COMM 120

This course focuses on critical thinking with an emphasis on building and analyzing logical arguments. Rhetorical strategies are discussed and practiced. The course covers organization, supporting materials, delivery of effective arguments, and the use of questioning in critical thinking. This course is formerly known as SPEECH 311

COMM C1004 Interpersonal Communication

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B

C-ID: C-ID COMM 130

This course was formerly known as COMM 321 Interpersonal Communication.

This course covers theory, research, and application of ethical one-to-one communication practices
in various and diverse interpersonal relationships including in personal, professional, and social
situations. Students explore theoretical perspectives of individual, situational, and cultural influences on human interaction with attention given to perception, verbal and nonverbal communication, listening, interpersonal dynamics, power and conflict.
This course was formally known as COMM 321 and is not open to students who have completed COMM 321.

COMM 325 Intercultural Communication

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480), or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID COMM 150

This course is an introduction to the challenges and rewards of intercultural communication in everyday situations. It is designed to increase understanding of variations in communication patterns across cultures and prepares individuals for more effective communication. The course emphasizes both international culture variance and sub-cultural group-based experiential background variance. This course is formerly known as SPEECH 325.

COMM 331 Group Discussion

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L1B

C-ID: C-ID COMM 140

This course covers the dynamics of group communication and prepares individuals to function more effectively in groups. It focuses on oral communication in task groups and social groups. Topics include communication concepts and behaviors in problem solving, decision making, leadership, conflict management, and group roles and norms. This course is formerly known as SPEECH 331.

COMM 361 The Communication Experience

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L1B; Cal-GETC Area 1C

C-ID: C-ID COMM 180

In this course, students learn and apply foundational rhetorical theories and techniques of public speaking in a multicultural democratic society. This course is an introduction to the principles and methods of oral communication with emphasis on improving speaking and listening skills in the multicultural contexts of interpersonal, small group, and public communication. Over the course of the semester, students develop and apply effective research strategies. This course was formerly known as SPEECH 361 and is not open to students who passed SPEECH 361.

COMM 362 Mediated Communication

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L1B

This course covers the concepts and skills necessary to communicate ideas effectively in a democratic society within the context of a computer-mediated environment. It focuses on how to orally express, support, and organize messages effectively in the public speaking mode and to critically evaluate the speech of others. Topics include informative and persuasive speaking, online group dynamics, mediated presentations, interviewing, conference calls, and computer-mediated interpersonal communication. Students are expected to use their own video recording devices. This course is formerly known as SPEECH 362.

COMM 495 Independent Studies in Communication

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed. This course is formerly known as SPEECH 495.

COMM 499 Experimental Offering in Communication

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Community Services Education

Overview

Community Services offerings enable you to improve the quality of your life through lifelong learning. This program of fee-based classes is designed to serve individuals with educational goals that do not require college credit.

Phone: (916) 485-6000

Email: Natomas@arc.losrios.edu

Community Services Education (CSERV) Courses

CSERV 2040 Medical Spanish: Part 1

Units: 0

Prerequisite: None.

This course is designed to help community members and people who are interested in helping the sick by providing the following: Medical Spanish Terminology and phrases for non-native speakers of Spanish wishing to enhance their ability to communicate with their Spanish-speaking patients, as well as for native speakers of Spanish wishing to broaden their use of medical terminology in order to be able to communicate more effectively with their family members in a variety of health settings. Emphasizes oral communication in a variety of medical settings by focusing on basic language exchange between doctor/nurse and patient. No prior knowledge of Spanish required. *Provider Approved by the Board of Registered Nursing for 32 Contact Hours per 8-week course. Provider #CEP15540.

CSERV 2041 Medical Spanish: Part 2

Units: 0

Prerequisite: None.

This course is designed to help community members and people who are interested in helping the sick by providing the following: Medical Spanish Terminology and phrases for non-native speakers of Spanish wishing to enhance their ability to communicate with their Spanish-speaking patients, as well as for native speakers of Spanish wishing to broaden their use of medical terminology in order to be able to communicate more effectively with their family members in a variety of health settings. Emphasizes oral communication in a variety of medical settings by focusing on vocabulary and phrases used by specialists and their patients. Basic prior knowledge of Spanish recommended. *Provider Approved by the Board of Registered Nursing for 32 Contact Hours per 8-week course. Provider #CEP15540.

CSERV 2042 Medical Spanish: Part 3

Units: 0

Prerequisite: None.

This course is designed to help community members and people who are interested in helping the sick by providing the following: Medical Spanish Terminology and phrases for non-native speakers of Spanish wishing to enhance their ability to communicate with their Spanish-speaking patients, as well as for native speakers of Spanish wishing to broaden their use of medical terminology in order to be able to communicate more effectively with their family members in a variety of health settings. Emphasizes oral communication in a variety of medical settings by focusing on vocabulary and phrases used at medical centers and hospitals. Some prior knowledge of Spanish, along with the ability to converse in both the present and the past, recommended. *Provider Approved by the Board of Registered Nursing for 32 Contact Hours per 8-week course. Provider #CEP15540.

CSERV 2043 Medical Spanish: Part 4

Units: 0

Prerequisite: None.

This course is designed to help community members and people who are interested in helping the sick by providing the following: Medical Spanish Terminology and phrases for non-native speakers of Spanish wishing to enhance their ability to communicate with their Spanish-speaking patients, as well as for native speakers of Spanish wishing to broaden their use of medical terminology in order to be able to communicate more effectively with their family members in a variety of health settings. Emphasizes oral communication in a variety of medical settings by focusing on different health problems current to society. Some prior knowledge of Spanish with the ability to converse in the present, past and future recommended. *Provider Approved by the Board of Registered Nursing for 32 Contact Hours per 8-week course. Provider #CEP15540.

CSERV 2080 BAR A-6 Alternative - Electrical and Electronic Systems Training

Units: 0

Prerequisite: None.

This course is an intensive Bureau of Automotive Repair-approved review of automotive electrical/electronic systems. It partially satisfies the ASE certification requirement when applying for a Smog Check technician license.

CSERV 2081 BAR A-8 Alternative - Engine Performance Systems

Units: 0

Prerequisite: None.

This course is an intensive Bureau of Automotive Repair-approved review of automotive engine performance systems. It partially satisfies ASE certification requirement when applying for a Smog Check technician license.

CSERV 2082 BAR Approved L-1 Alternative

Units: 0

Prerequisite: None.

This course is preparation for the Bureau of Automotive Repair (BAR) – approved Advanced Engine Performance Exam. Topics covered include Power Train Diagnosis, Computer Control Diagnostics, Ignition System Diagnostics, Fuel and Air Induction Diagnostics, Emission Control Diagnostics, and I/M Failure Diagnosis. The BAR L-1 Alternative test is administered at the end of the class.

CSERV 2083 Bureau of Automotive Repair Emissions Update

Units: 0

Prerequisite: None.

This course is required for all licensed smog technicians who need to meet California emissions control smog license renewal standards.

CSERV 2087 California Council on Diesel Education and Technology 1 (CCDET 1)

Units: 0

Prerequisite: None.

This course is offered to individuals who have received emissions code violations. It covers the California Council on Diesel Education and Technology, or CCDET requirements for Heavy Duty Vehicle Inspection and Periodic Smoke Detection Programs. Topics include common causes of high diesel smoke levels and smoke diagnostic information.

CSERV 2089 California Council on Diesel Education and Technology 2 (CCDET 2)

Units: 0

Prerequisite: None.

This course is offered to individuals who have received emissions code violations. It covers the California Council on Diesel Education and Technology, or CCDET requirements for After-treatment and Maintenance as it applies to Diesel exhaust. Topics include strategies to reduce diesel particulate matter and Heavy Duty Diesel Engine certification standards.

Computer Information Science

Overview

Certificates and degree programs pull from multiple categories to make up a concentration of courses designed to help you succeed.

Computer Information Science Department courses at American River College are broken down into categories, including:

- CISA - Computer Applications
- CISC - Computer Core Classes
- CISN - Computer Networking
- CISP - Computer Programming
- CISS - Computer Security
- CISW - Web

Degrees and Certificates Offered

A.A. in CIS: Microcomputer Applications

A.S. in CIS: Computer Networking Management

A.S. in CIS: Computer Programming

A.S. in CIS: Database Management

A.S. in CIS: Information Technology Technician

A.S. in Computer Science

A.S. in Cybersecurity and Information Assurance

A.S. in Game Engineering

Information Systems Security Management Certificate

CIS: Computer Networking Management Certificate

CIS: Computer Programming Certificate

CIS: Database Management Certificate

CIS: Microcomputer Applications Certificate

CIS: PC Support Certificate

Computer Information Security Essentials Certificate

Cybersecurity and Information Assurance Certificate

Cybersecurity and Information Security Administration Certificate

Enterprise Mainframe System Administration Certificate

Enterprise Software Engineering and Development Apprenticeship Certificate

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Computer Info Science Certificate

Internet Marketing Certificate

Technical Communications Certificate

Web Developer Certificate

Web Publishing (Front-End) Certificate

Dean: Michelle Brock

Department Chair: Tak Auyeung

Phone: (916) 484-8215

Email: askhb-STEM@arc.losrios.edu

Associate Degrees

A.A. in CIS: Microcomputer Applications

This degree focuses on the use of the microcomputer and current, commonly used software to solve problems in a business environment. Course work includes microcomputer applications in database management, desktop publishing, electronic spreadsheets, presentation graphics, operating systems, word processing, and at least one programming language.

Degree Requirements

Course Code	Course Title	Units
BUSTEC 300.1	Keyboarding/Applications: Beginning	1
CISA 126	Outlook: Basics (1)	1
or BUSTEC 126	Outlook: Basics (1)	
CISA 127	Outlook: Tools (1)	1
or BUSTEC 127	Outlook: Tools (1)	
CISA 305	Beginning Word Processing	2
CISA 306	Intermediate Word Processing	2
CISA 315	Introduction to Electronic Spreadsheets	2
CISA 316	Intermediate Electronic Spreadsheets	2
CISA 320	Introduction to Database Management	1
CISA 322	Design and Development of Desktop Database Applications	3
CISA 330	Desktop Publishing	2

Course Code	Course Title	Units
CISA 340	Presentation Graphics	2
CISC 306	Introduction to Web Page Creation	1
CISC 310	Introduction to Computer Information Science	3
CISC 320	Operating Systems	1
CISC 323	Linux Operating System	1
CISP 370	Beginning Visual Basic	4
A minimum of 5 units from the following:		5
ACCT 341	Computerized Accounting (3)	
CISA 160	Project Management Techniques and Software (3)	
CISC 350	Introduction to Data Communications (1)	
CISC 351	Introduction to Local Area Networks (1)	
CISS 315	Ethical Hacking (3)	
CISW 300	Web Publishing (3)	
A minimum of 3 units from the following:		3
ACCT 343	Computer Spreadsheet Applications for Accounting (2)	
CISA 331	Intermediate Desktop Publishing (2)	
CISC 305	Introduction to the Internet (1)	
CISP 350	Database Programming (3)	
CISP 360	Introduction to Structured Programming (4)	
CISP 480	Honors Introduction to Structured Programming (5)	
CISS 300	Introduction to Information Systems Security (1)	
CISW 370	Designing Accessible Websites (1)	
Total Units:		**37**

The CIS: Microcomputer Applications Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- design and manage database tables, queries and forms.
- produce reports for use in a typical business environment.
- evaluate the basic computing needs of a business by developing associated documentation and presentations.
- create spreadsheet formulas and manipulate business data.
- compose and format typical business communications documents according to industry standards.
- combine data from different software applications into one document.
- compose simple computer programs using basic logic.
- apply file management techniques in organizing computer data.

A.S. in CIS: Computer Networking Management

This degree covers network administration technologies, techniques, and the hardware and software used in todayâ€™s business/enterprise networking environment. Major topics covered include installation, configuration, and troubleshooting of network operating systems. The degree stresses the knowledge and skills required for the day-to-day operation, business aspects, security and management of computer networks. This degree has three distinct concentrations with specific courses for each concentration track:
1. Microsoft Windows networking concentration, focusing on preparing for the Microsoft Certified Systems Engineer (MCSE) and/or the Microsoft Certified Systems Administrator (MCSA) certification.
2. Linux/Unix networking concentration, focusing on preparing for the administration of commercial Linux/Unix servers and network environments.
3. Cisco router and network administration concentration, which covers all the objectives of the Cisco Certified Network Associate (CCNA) certification exam.

Degree Requirements

Course Code	Course Title	Units
BUS 310	Business Communications (3)	3 - 4
or ENGL C1000	Academic Reading and Writing (3)	
or ENGL C1000H	Academic Reading and Writing - Honors (3)	
or ESLW 340	Advanced Composition (4)	
CISA 315	Introduction to Electronic Spreadsheets	2
CISC 320	Operating Systems	1
CISC 323	Linux Operating System	1
CISC 350	Introduction to Data Communications	1
CISC 361	Information Technology Fundamentals	3
CISS 310	Network Security Fundamentals	3
Subtotal Units:		**14 - 15**

CISCO Concentration

Course Code	Course Title	Units
CISC 324	Intermediate Linux Operating System	1
[CISN 110	Networking Technologies - Preparation for N+ Certification (2)	3 - 4
and CISN 111]	Intermediate Networking Technologies (2)	
or CISN 119	TCP/IP Protocols (3)	
CISN 340	Cisco Networking Academy CCNA: Introduction to Networks	3.5

Course Code	Course Title	Units
CISN 341	CISCO Networking Academy (CCNA)tm:Switching, Routing, and Wireless Essentials	3.5
CISN 342	Cisco Networking Academy CCNA: Enterprise Networking, Security, and Automation	3.5
CISS 330	Implementing Internet Security and Firewalls	3
CISCO Concentration Units:		17.5 - 18.5
Total Units:		**31.5 - 33.5**

Linux Concentration

Course Code	Course Title	Units
CISC 324	Intermediate Linux Operating System	1
CISN 110	Networking Technologies - Preparation for N+ Certification	2
CISN 111	Intermediate Networking Technologies	2
CISN 119	TCP/IP Protocols	3
CISN 120	Red Hat Linux System Administration I (RH124)	2
CISN 121	Red Hat Linux System Administration II (RH134)	2
CISN 122	Red Hat Linux System Administration III (RH254): Data Center Services	2
A minimum of 3 units from the following:		3
CISP 400	Object Oriented Programming with C++ (4)	
CISS 342	Implementing Linux Operating System Security (3)	
Linux Concentration Units:		17
Total Units:		**31 - 32**

Windows Concentration

Course Code	Course Title	Units
CISN 110	Networking Technologies - Preparation for N+ Certification	2
CISN 111	Intermediate Networking Technologies	2
CISN 300	Network Systems Administration	3
CISN 302	Intermediate Network Systems Administration	3
CISN 307	Windows Active Directory Services	3
CISN 308	Internetworking with TCP/IP (3)	3
or CISN 119	TCP/IP Protocols (3)	
A minimum of 3 units from the following:		3
CISP 370	Beginning Visual Basic (4)	
CISS 341	Implementing Windows Operating System Security (3)	
Windows Concentration Units:		19
Total Units:		**33 - 34**

The CIS: Computer Networking Management Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- WINDOWS CONCENTRATION:
- install, configure, monitor, manage, backup, and customize a Microsoft server.
- design, construct and apply group policies and NTFS file system permissions to secure files and network resources.
- design, construct and troubleshoot a Microsoft Active Directory network using Microsoft workstation and server operating systems.
- CISCO CONCENTRATION:
- design, evaluate, construct and implement a routed IP network using industry standard routing protocols and routing equipment, in a wired or wireless configuration.
- design, evaluate, construct and implement a multilayer switching network using switching protocols, such as Ethernet, in a wired or wireless configuration.
- design, install and test Wide Area Network (WAN) connectivity solutions.
- design and evaluate basic security and access solutions in a switched or routed LAN or WAN.
- design, evaluate, specify, and install various types of network media.
- LINUX/UNIX CONCENTRATION:
- install, configure, monitor, manage, backup, and customize a Linux server.
- design, evaluate and implement and troubleshoot typical Linux server services in the areas of user accounts and security, printing, web server, telnet server, firewall, email server, domain name service, dynamic host configuration protocol, network file system, and Microsoft Windows compatibility.

Career Information

This degree is designed for career/technical students who plan to enter the work force as well as working IT professionals that wish to upgrade their skills. Typical careers a student could expect to pursue include network technical support staff, network administrators, network designers, network systems engineer, network troubleshooters, and information systems security specialists.

A.S. in CIS: Computer Programming

This degree includes general topics in the field of computer programming, including but not limited to, programming language, the use of an operating system, and the translation of a problem statement into a generic program solution. Programming language-specific topics include syntax, program structuring, language constructs and proper programming methods.

Degree Requirements

Course Code	Course Title	Units
CISC 310	Introduction to Computer Information Science	3
CISP 350	Database Programming	3
Subtotal Units:		**6**

C++ concentration

Course Code	Course Title	Units
[CISP 300	Algorithm Design/Problem Solving (3)	5 - 7
and CISP 360]	Introduction to Structured Programming (4)	
or CISP 480	Honors Introduction to Structured Programming (5)	
CISP 400	Object Oriented Programming with C++	4
CISP 430	Data Structures	4
C++ concentration Units:		13 - 15
Total Units:		**19 - 21**

Java concentration

Course Code	Course Title	Units
[CISP 300	Algorithm Design/Problem Solving (3)	5 - 7
and CISP 360]	Introduction to Structured Programming (4)	
or CISP 480	Honors Introduction to Structured Programming (5)	
CISP 401	Object Oriented Programming with Java	4
A minimum of 3 units from the following:		3
CISC 320	Operating Systems (1)	
CISC 323	Linux Operating System (1)	
CISC 324	Intermediate Linux Operating System (1)	
CISP 310	Computer Architecture and Organization (4)	
Java concentration Units:		12 - 14
Total Units:		**18 - 20**

The CIS: Computer Programming Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe how programming relates to the development of an information system.
- develop programs using the top-down method.
- apply structured programming techniques.
- translate a detailed design document into a computer programming language solution.
- verify the syntactic correctness of a program.
- verify the logical correctness of a program.
- analyze the behavior of a program and locate defects.

Career Information

Upon completion of the computer programming degree, a student meets the minimum qualifications as an entry-level programmer/developer.

A.S. in CIS: Database Management

The CIS: Database Management degree focuses on relational database technology used in the business environment. The emphasis is on selecting the appropriate system platform for database deployment. Course work includes database system design and programming for desktop, enterprise and Internet platforms, structure query language (SQL) programming, introductory principles of modular programming, system design and problem solving, desktop operating systems, electronic spreadsheets and a variety of introductory business courses.

Degree Requirements

Course Code	Course Title	Units
ACCT 101	Fundamentals of College Accounting (3)	3 - 4
or ACCT 301	Financial Accounting (4)	
BUS 110	Business Economics (3)	3
or ECON C2002	Principles of Macroeconomics (3)	
BUS 300	Introduction to Business	3
BUS 310	Business Communications (3)	3
or ENGL C1000	Academic Reading and Writing (3)	
CISA 315	Introduction to Electronic Spreadsheets	2
CISA 320	Introduction to Database Management	1
CISA 322	Design and Development of Desktop Database Applications	3
CISC 310	Introduction to Computer Information Science	3
CISC 320	Operating Systems	1
CISP 300	Algorithm Design/Problem Solving	3
CISP 350	Database Programming	3
CISP 370	Beginning Visual Basic	4
CISW 300	Web Publishing	3
CISW 410	Database-Driven Web Applications	4
Total Units:		**39 - 40**

The CIS: Database Management Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe relational database technologies for desktop, enterprise and Internet platforms.
- explain and discuss database theory and principles.
- employ relational database technologies for either desktop, enterprise and Internet platforms to solve common business problems using standard database principles and practices.
- assess and document information system requirements.
- employ modular programming concepts in program development.
- design and code elementary programs encountered in business and government.
- identify interactive web publishing situations requiring database solutions.
- create interactive web database.
- analyze practical business problems and utilize critical thinking in the determination of alternative solutions.
- apply communication theory, effective writing techniques, and interpersonal communication skills to business situations.
- analyze and explain the nature and purpose of accounting and its function in business.

A.S. in CIS: Information Technology Technician

The CIS: Information Technology Technician degree covers the use and maintenance of computer hardware, software, and network connections in today's business environment. Course work includes learning basic computer skills in configuration, use, and troubleshooting major hardware components, different operating systems, and applications in a standalone and network environment. Additionally, the degree introduces basic business and project management skills. This program covers all the objectives of the Computing Technology Industry Association (CompTIA) A+ certification exam.

Degree Requirements

Course Code	Course Title	Units
BUS 224	Customer Service	1
CISC 310	Introduction to Computer Information Science	3
CISC 320	Operating Systems	1[1]
CISC 361	Information Technology Fundamentals	3
CISN 340	Cisco Networking Academy CCNA: Introduction to Networks	3.5
CISS 315	Ethical Hacking	3
CISS 350	Disaster Recovery	3
CISA 160	Project Management Techniques and Software (3)	3
or MGMT 142	Project Management Techniques and Software (3)	
A minimum of 6 units from the following:		6
CISA 126	Outlook: Basics (1)	
or BUSTEC 126	Outlook: Basics (1)	
CISA 127	Outlook: Tools (1)	
or BUSTEC 127	Outlook: Tools (1)	
CISA 305	Beginning Word Processing (2)	
CISA 315	Introduction to Electronic Spreadsheets (2)	
CISA 320	Introduction to Database Management (1)	

Course Code	Course Title	Units
CISA 340	Presentation Graphics (2)	
CISC 306	Introduction to Web Page Creation (1)	
CISC 323	Linux Operating System (1)	
Total Units:		**26.5**

[1]Taken on the Windows operating system.

The CIS: Information Technology Technician Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify the names, purpose, and characteristics of system components.
- evaluate and demonstrate basic procedures for adding and removing field replaceable components for desktop computers.
- analyze and demonstrate the installation and troubleshooting of current operating systems, applications and basic networking technology used in industry.
- formulate back-up, recovery, and system protection plans for the operating system in a network environment.
- develop proficiency in customer service skills to effectively diagnose and communicate microcomputer software and hardware-related problems and solutions at the user level.
- demonstrate the techniques to manage a project, control costs, and schedule resources employing management software.
- recognize within the information technology (IT) field the diverse business environment associated with support issues.
- configure and implement data security methods for protecting computers and networks from unauthorized access.

A.S. in Computer Science

This degree provides a comprehensive exposure to programming languages, algorithms and problem solving in preparation for upper division computer science courses. The Computer Science degree includes substantial course work in mathematics required by most university computer science programs.

Degree Requirements

Course Code	Course Title	Units
[CISP 300	Algorithm Design/Problem Solving (3)	5 - 7
and CISP 360]	Introduction to Structured Programming (4)	
or CISP 480	Honors Introduction to Structured Programming (5)	
CISP 310	Computer Architecture and Organization	4
CISP 400	Object Oriented Programming with C++	4
CISP 430	Data Structures	4
CISP 440	Discrete Structures for Computer Science	3
MATH 400	Calculus I	5
MATH 401	Calculus II	5
Total Units:		**30 - 32**

The Computer Science Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate various programming language solutions to a proposed problem.
- recommend tools and techniques for each step in the development of a computer program.
- integrate the basic mathematical knowledge that is fundamental to computer science into the solutions of proposed problems.
- evaluate the theories and core techniques of computer science using scientific methods.

A.S. in Cybersecurity and Information Assurance

This program prepares IT professionals to apply knowledge and experience in network security, risk management, intrusion detection, remediation, and digital forensics to safeguard infrastructure and secure data and business operations. Courses deliver proven methods for information security using software analysis techniques, web engineering, cloud management, and networking strategies to prevent, detect, and mitigate cyberattacks. This program also provides preparation for several nationally recognized, high demand certifications in the field of Cybersecurity.

Degree Requirements

Course Code	Course Title	Units
CISN 340	Cisco Networking Academy CCNA: Introduction to Networks	3.5
CISN 341	CISCO Networking Academy (CCNA)tm:Switching, Routing, and Wireless Essentials	3.5
CISN 300	Network Systems Administration (3)	3
CISS 310	Network Security Fundamentals	3
CISS 315	Ethical Hacking	3
CISS 316	Cisco Networking Academy(R): CyberOps Associate	3
CISS 321	Scripting for Cyber Security	3
CISS 330	Implementing Internet Security and Firewalls	3
CISS 350	Disaster Recovery	3
CISS 360	Computer Forensics and Investigation	3
Total Units:		**31**

The Cybersecurity and Information Assurance Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- define best practices for configuring cyber defense and countermeasures.
- design organizational plans for securing data and while maintaining the confidentiality, integrity, and availability (CIA) of the information transmitted over communication networks.
- explain how security principles and cyber defense concepts impact organizational policies and practices.
- analyze security risks mitigation processes to identify, evaluate, prioritize, and prevent potential security threats.
- critique plans to secure and manage physical and virtual infrastructures for legal and secure cloud operations.
- outline legal issues that should be included within the security awareness training and education program of an organization.
- analyze applicable laws and policies to legally protect the organization against security incident.
- determine how to address vulnerabilities and threats in cellular and mobile network technologies.
- prioritize and establish a disaster recovery plan for the enterprise.
- develop security incident response plans that align to an organization's security goals and objectives and maintain business continuity.

Career Information

Cybersecurity Engineer Cyber Operations Planner IT Security Specialist Information Security Analyst IT Privacy Analyst IT Risk Analyst Security Operations Center (SOC) Technician Information Security Auditor

A.S. in Game Engineering

This degree provides a transferable foundation in game engineering. Technical topics range from core programming, the â€œglueâ€ holding the game together, to the visible, user-facing aspects of games. Programming language challenges, including syntax, program structuring, language constructs, and proper programming methods, are explored alongside asset development and optimization for collaborative prototyping. The program is application-centric and extends beyond traditional entertainment, emphasizing how game technologies and tools can be applied to solve real-world problems. This includes the gamification of challenges in science, education, and mathematics; areas where game-based abstraction can address issues even AI cannot solve. Topics such as physics simulation and other non-entertainment uses of game-related technologies are covered. Tools and platforms include game engines, programming languages, 3D modeling and 2D/3D animation, virtual reality headsets, mixed reality devices, and controllers. This degree is preparation for lower-division course work at four-year universities.

Degree Requirements

Course Code	Course Title	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
CISP 440	Discrete Structures for Computer Science	3
A minimum of 9 units from the following:		9
ARTNM 420	Introduction to 3D Modeling (3)	
ARTNM 421	3D Modeling and Texturing II - Character (3)	
ARTNM 423	3D Modeling and Texturing III - Environment (3)	
ARTNM 429	3D Rigging and Rig Building (3)	
CISP 310	Computer Architecture and Organization (4)	
CISW 300	Web Publishing (3)	

Course Code	Course Title	Units
MATH 400	Calculus I (5)	
MATH 401	Calculus II (5)	
MATH 410	Introduction to Linear Algebra (3)	
Total Units:		**27**

The Game Engineering Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply core programming principles to develop interactive game components, including logic, control structures, algorithms, and syntax across multiple programming languages.
- prototype functional game systems that integrate user input, game logic, and real-time feedback using industry-standard game engines and tools.
- develop and optimize technical assets (e.g., 3D models, animations, rigs) to support collaborative prototyping in team-based development environments.
- use abstraction and game-based thinking to apply gamification strategies in solving real-world problems in fields such as education, science, and mathematics.
- demonstrate the ability to debug and structure code effectively, using proper programming methods and language constructs for scalable, maintainable software.
- integrate and manipulate hardware technologies such as virtual reality headsets, mixed reality devices, and custom controllers into interactive prototypes.
- simulate real-world systems and physics within a game environment to support applications beyond entertainment, including training, visualization, and experimentation.
- demonstrate readiness for upper-division coursework in computer science.

Career Information

This degree is designed to facilitate studentsâ€™ successful transfer to four-year programs. From there, students are prepared for a variety of careers such as Computer Programmer, Gameplay Programmer, Engine Programmer, Tools Programmer, Technical Game Designer, Game Systems Developer, Simulation Developer, VR/AR Developer, Serious Games Developer, Software Engineer, Mobile App Developer, Gamification Specialist, or Technical Artist.

Certificates of Achievement

Information Systems Security Management Certificate

This certificate provides a structured training program to develop the skills needed for journey-workers in the information security field to become information security managers. It provides academic preparation for advanced information security industry certifications.

Certificate Requirements

Course Code	Course Title	Units
CISS 310	Network Security Fundamentals	3
CISS 341	Implementing Windows Operating System Security (3)	3
or CISS 342	Implementing Linux Operating System Security (3)	
CISS 352	Information Systems Governance and Auditing	3
CISS 354	Information Systems Risk Analysis and Security Controls Development	3
CISS 358	Information Systems Incident Response	3
CISS 362	Information Systems Privacy	3
Total Units:		**18**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- manage and assess the effectiveness of a security program.
- plan and conduct audits to determine compliance with policies, laws, regulations, and other standards.
- assign and validate appropriate levels of risk and control ownership.
- promote a risk-aware culture by contributing to the development and implementation of security awareness training.
- establish and maintain the IT risk register and incorporate it into the enterprise-wide risk profile.
- develop and build an incident response process.
- author security policies and procedures.
- collaborate with cybersecurity personnel on the security risk assessment process to address privacy compliance and risk mitigation.

- report on the status and outcomes of privacy and security programs and practices to relevant stakeholders.
- evaluate the enterprise architecture and information architecture to ensure that it supports privacy and security by design principles and considerations.

Career Information

Information Security Officer Disaster Recovery Program Manager Incident Response Program Manager Privacy Officer / Program Manager

CIS: Computer Networking Management Certificate

The CIS: Computer Networking Management certificate provides instruction for entry-level and IT professionals aiming for skill enhancement on the specific knowledge and skills required to master one of three industry standard network technologies:
·Microsoft Windows networking concentration, focusing on preparing for the Microsoft Certified Systems Engineer (MCSE) and/or the Microsoft Certified Systems Administrator (MCSA) certification.
·Linux/Unix networking concentration, focusing on preparing for the administration of commercial Linux/Unix servers and network environments.
·Cisco router and network administration concentration, which covers all the objectives of the Cisco Certified Network Associate (CCNA) certification exam.

Certificate Requirements

Course Code	Course Title	Units
CISC 323	Linux Operating System	1
CISC 350	Introduction to Data Communications	1
CISC 361	Information Technology Fundamentals	3
CISS 310	Network Security Fundamentals	3
Subtotal Units:		**8**

CISCO Concentration

Course Code	Course Title	Units
CISC 324	Intermediate Linux Operating System	1
CISN 340	Cisco Networking Academy CCNA: Introduction to Networks	3.5
CISN 341	CISCO Networking Academy (CCNA)tm:Switching, Routing, and Wireless Essentials	3.5
CISN 342	Cisco Networking Academy CCNA: Enterprise Networking, Security, and Automation	3.5
CISCO Concentration Units:		11.5
Total Units:		**19.5**

Linux Concentration

Course Code	Course Title	Units
CISC 324	Intermediate Linux Operating System	1
CISN 110	Networking Technologies - Preparation for N+ Certification	2
CISN 111	Intermediate Networking Technologies	2
CISN 119	TCP/IP Protocols	3
CISN 120	Red Hat Linux System Administration I (RH124)	2
CISN 121	Red Hat Linux System Administration II (RH134)	2
CISN 122	Red Hat Linux System Administration III (RH254): Data Center Services	2
Linux Concentration Units:		14
Total Units:		**22**

Windows Concentration

Course Code	Course Title	Units
CISN 110	Networking Technologies - Preparation for N+ Certification	2
CISN 111	Intermediate Networking Technologies	2
CISN 300	Network Systems Administration	3
CISN 302	Intermediate Network Systems Administration	3
CISN 307	Windows Active Directory Services	3
CISN 308	Internetworking with TCP/IP (3)	3
or CISN 119	TCP/IP Protocols (3)	
Windows Concentration Units:		16
Total Units:		**24**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate competency in basic Microsoft Windows and Linux operating system terminology, command line interface commands, account management, and file management and storage.
- define networking terminology, protocols, industry standard models, and best practices for configuring network operating system services.

- configure and implement basic data security methods for protecting servers, workstations and networks from unauthorized access.
- evaluate and demonstrate basic procedures for troubleshooting and replacing field replaceable components in microcomputers.
- implement, evaluate and troubleshoot a transmission control protocol/internet protocol (TCP/IP) addressing scheme.
- define, implement, evaluate and troubleshoot the most common utilities and protocols of the TCP/IP suite.
- CISCO CONCENTRATION:
- design, evaluate, construct and implement a routed network using TCP/IP and industry standard routing protocols and state of the technology routing equipment, in a wired or wireless configuration.
- design, evaluate, construct and implement a multilayer switching network using switching protocols, such as Ethernet, in a wired or wireless configuration.
- design, install and test Wide Area Network (WAN) connectivity solutions.
- design and evaluate basic security and access solutions in a switched or routed LAN or WAN.
- evaluate, specify, and install various types of network media.
- LINUX/UNIX CONCENTRATION:
- install, configure, monitor, manage, backup, and customize a Linux server.
- design, evaluate and implement and troubleshoot typical Linux server services in the areas of user accounts and security, printing, web server, telnet server, firewall, email server, domain name service, dynamic host configuration protocol, network file system, and Microsoft Windows compatibility.
- WINDOWS CONCENTRATION:
- install, configure, monitor, manage, backup, and customize a Microsoft Windows server.
- design, construct and apply group policies and NTFS file system permissions to secure files and network resources.
- design, construct and troubleshoot a Microsoft Active Directory network using Microsoft workstation and server operating systems.

CIS: Computer Programming Certificate

This certificate includes general topics in the field of computer programming, including but not&#xfffd;limited to, programming language, the use of an operating system, and the translation of a problem statement into a generic program solution.

Programming language-specific topics include syntax, program structuring, language constructs and proper programming methods.

Certificate Requirements

Course Code	Course Title	Units
CISC 310	Introduction to Computer Information Science	3
CISC 320	Operating Systems	1
Subtotal Units:		**4**

C++ concentration

Course Code	Course Title	Units
[CISP 300	Algorithm Design/Problem Solving (3)	5 - 7
and CISP 360]	Introduction to Structured Programming (4)	
or CISP 480	Honors Introduction to Structured Programming (5)	
CISP 400	Object Oriented Programming with C++	4
CISP 430	Data Structures	4
A minimum of 1 unit from the following:		1
CISC 323	Linux Operating System (1)	
CISC 324	Intermediate Linux Operating System (1)	
C++ concentration Units:		14 - 16
Total Units:		**18 - 20**

Java concentration

Course Code	Course Title	Units
[CISP 300	Algorithm Design/Problem Solving (3)	5 - 7
and CISP 360]	Introduction to Structured Programming (4)	
or CISP 480	Honors Introduction to Structured Programming (5)	
CISP 350	Database Programming	3
CISP 401	Object Oriented Programming with Java	4
A minimum of 2 units from the following:		2
CISC 323	Linux Operating System (1)	
CISC 324	Intermediate Linux Operating System (1)	
CISP 310	Computer Architecture and Organization (4)	
Java concentration Units:		14 - 16
Total Units:		**18 - 20**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply techniques of structured programming.
- design programs using object-oriented methodology.
- analyze problems related to computer programming.
- design algorithms to solve problems related to programming.
- develop specifications of an information system based on requirements.
- compare alternative implementations of programmed solutions using a variety of criteria.
- describe how programming fits in the context of the development of an information system.

Career Information

This programming certificate enables people who are already in the information technology or computer fields to develop or supplement their skills with the experience of an additional programming language.

CIS: Database Management Certificate

The CIS: Database Management certificate involves the study of relational database technology used in the business environment. The emphasis is on selecting the appropriate system platform for database deployment. Course work includes database system design and programming for desktop, enterprise and Internet platforms, structure query language (SQL) programming, introductory principles of modular programming, system design and problem solving, desktop operating systems, and electronic spreadsheets.

Certificate Requirements

Course Code	Course Title	Units
CISA 315	Introduction to Electronic Spreadsheets	2
CISA 320	Introduction to Database Management	1
CISA 322	Design and Development of Desktop Database Applications	3
CISC 320	Operating Systems	1
CISP 300	Algorithm Design/Problem Solving	3
CISP 350	Database Programming	3
CISP 370	Beginning Visual Basic	4
CISW 300	Web Publishing	3
CISW 410	Database-Driven Web Applications	4
Total Units:		**24**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe relational database technologies for desktop, enterprise and Internet platforms.
- explain and discuss database theory and principles.
- employ relational database technologies for either desktop, enterprise and Internet platforms to solve common business problems using standard database principles and practices.
- assess and document information system requirements.
- employ modular programming concepts in program development.
- design and code elementary programs encountered in business and government.
- identify interactive web publishing situations requiring database solutions.
- create interactive web database applications.

CIS: Microcomputer Applications Certificate

This certificate involves the use of the microcomputer and current, commonly used software to solve problems in a business environment. Course work includes microcomputer applications in database management, desktop publishing, electronic spreadsheets, presentation graphics, operating systems, and word processing.

Certificate Requirements

Course Code	Course Title	Units
CISA 305	Beginning Word Processing	2
CISA 315	Introduction to Electronic Spreadsheets	2
CISA 320	Introduction to Database Management	1
CISA 330	Desktop Publishing	2
CISA 340	Presentation Graphics	2
CISC 305	Introduction to the Internet	1
CISC 310	Introduction to Computer Information Science	3
CISC 320	Operating Systems	1
CISC 350	Introduction to Data Communications	1
A minimum of 6 units from the following:		6
CISA 306	Intermediate Word Processing (2)	
CISA 316	Intermediate Electronic Spreadsheets (2)	
CISA 322	Design and Development of Desktop Database Applications (3)	
CISC 306	Introduction to Web Page Creation (1)	
CISC 323	Linux Operating System (1)	

Course Code	Course Title	Units
Total Units:		**21**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- design and manage database tables, queries and forms.
- produce reports for use in a typical business environment.
- evaluate the basic computing needs of a business by developing associated documentation and presentations.
- create spreadsheet formulas and manipulate business data.
- compose and format typical business communications documents according to industry standards.
- combine data from different software applications into one document.
- apply file management techniques in organizing computer data.

CIS: PC Support Certificate

The CIS: PC Support certificate covers the use and maintenance of a microcomputer's hardware, software and network connections in today's business environment. Course work includes basic computer skills in configuration, use, and troubleshooting major hardware components, different operating systems, and applications in a standalone and network environment. This program covers all the objectives of the Computer Technology Industry Associates (CompTIA) A+ certification exam.

Certificate Requirements

Course Code	Course Title	Units
BUS 100	English for the Professional (3)	3
or ENGL C1000	Academic Reading and Writing (3)	
BUS 310	Business Communications	3
CISC 310	Introduction to Computer Information Science	3
CISC 320	Operating Systems	1[1]
CISC 350	Introduction to Data Communications	1
CISC 351	Introduction to Local Area Networks	1
CISC 361	Information Technology Fundamentals	3
CISC 362	Microcomputer and Applications Support	2
CISC 363	Microcomputer Support Technical - Preparation for A+ Certification	3
CISS 310	Network Security Fundamentals	3
CISS 315	Ethical Hacking	3
A minimum of 6 units from the following:		6
CISA 126	Outlook: Basics (1)	
or BUSTEC 126	Outlook: Basics (1)	
CISA 127	Outlook: Tools (1)	
or BUSTEC 127	Outlook: Tools (1)	
CISA 305	Beginning Word Processing (2)	
CISA 315	Introduction to Electronic Spreadsheets (2)	
CISA 320	Introduction to Database Management (1)	
CISA 340	Presentation Graphics (2)	
CISC 306	Introduction to Web Page Creation (1)	
CISC 323	Linux Operating System (1)	
Total Units:		**32**

[1]Taken on the Windows operating system.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- Identify and recognize the names, purpose, and characteristics of system components by sight or definition.
- Evaluate and demonstrate basic procedures for adding and removing field replaceable components for desktop computers.
- Analyze and demonstrate understanding for installation and troubleshooting current operating systems, applications and basic networking technology used in industry.
- Formulate back-up, recovery, and system protection plans for the operating system in a network environment.
- Develop proficiency in customer service skills to effectively diagnose and communicate microcomputer software and hardware-related problems and solutions at the user level.
- Configure and implement data security methods for protecting computers and networks from unauthorized access.

Computer Information Security Essentials Certificate

This program provides basic cyber operations knowledge of internal and external threats to information assets, compliance requirements, risk management, disaster recovery, and computer forensics. It also provides preparation for the

Computing Technology Industry Association (CompTIA) Security+ exam. It is a stackable certificate pathway to the CISS certificate and degree.

Certificate Requirements

Course Code	Course Title	Units
CISS 310	Network Security Fundamentals	3
CISS 315	Ethical Hacking	3
CISS 350	Disaster Recovery	3
CISS 360	Computer Forensics and Investigation	3
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe the fundamental concepts of the cyber security discipline and use to provide system security.
- identify the Federal, State and Local Cyber Defense partners/structures.
- compare and contrast different types of standards including: laws, regulations, policies, voluntary, and framework-based standards.
- assess the impact of legal/regulatory standards on a given system.
- discuss the rules, laws, policies, and procedures that affect digital forensics.
- describe the steps in performing digital forensics from the initial recognition of an incident through the steps of evidence gathering, preservation and analysis, through the completion of legal proceedings.
- plan, organize, and perform penetration testing on a simple network.
- describe the role of cybersecurity in supporting and encouraging ethics, as well as where cybersecurity practices can cause ethical conflicts.
- evaluate the effectiveness of applications of cybersecurity in preventing crime and abuse.
- assess the effectiveness of a security program.
- develop contingency plans for various size organizations to include: business continuity, disaster recovery and incident response.
- evaluate responsibilities related to the handling of data as it pertains to legal, ethical and/or agency auditing issues.
- evaluate and categorize risk 1) with respect to technology; 2) with respect to individuals, and 3) in the enterprise, and recommend appropriate responses.

Career Information

Cybersecurity Engineer Cyber Operations Planner IT Security Specialist Information Security Analyst IT Privacy Analyst IT Risk Analyst Information Security Auditor

Cybersecurity and Information Assurance Certificate

This certificate prepares IT professionals to apply knowledge and experience in network security, risk management, intrusion detection, remediation, and digital forensics to safeguard infrastructure and secure data and business operations. Courses deliver proven methods for information security using software analysis techniques, web engineering, cloud management, and networking strategies to prevent, detect, and mitigate cyberattacks. This program also provides preparation for several nationally recognized, high demand certifications in the field of Cybersecurity.

Certificate Requirements

Course Code	Course Title	Units
CISN 340	Cisco Networking Academy CCNA: Introduction to Networks	3.5
CISN 341	CISCO Networking Academy (CCNA)tm:Switching, Routing, and Wireless Essentials	3.5
CISN 300	Network Systems Administration	3
CISS 310	Network Security Fundamentals	3
CISS 315	Ethical Hacking	3
CISS 316	Cisco Networking Academy(R): CyberOps Associate	3
CISS 321	Scripting for Cyber Security	3
CISS 330	Implementing Internet Security and Firewalls	3
CISS 350	Disaster Recovery	3
CISS 360	Computer Forensics and Investigation	3
Total Units:		**31**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- define best practices for configuring cyber defense and countermeasures.
- design organizational plans for securing data and while maintaining the confidentiality, integrity, and availability (CIA) of the information transmitted over communication networks.
- explain how security principles and cyber defense concepts impact organizational policies and practices.

- analyze security risks mitigation processes to identify, evaluate, prioritize, and prevent potential security threats.
- critique plans to secure and manage physical and virtual infrastructures for legal and secure cloud operations.
- outline legal issues that should be included within the security awareness training and education program of an organization.
- analyze applicable laws and policies to legally protect the organization against security incident.
- determine how to address vulnerabilities and threats in cellular and mobile network technologies.
- prioritize and establish a disaster recovery plan for the enterprise.
- develop security incident response plans that align to an organization's security goals and objectives and maintain business continuity.

Career Information

Cybersecurity Engineer Cyber Operations Planner IT Security Specialist Information Security Analyst IT Privacy Analyst IT Risk Analyst Security Operations Center (SOC) Technician Information Security Auditor

Cybersecurity and Information Security Administration Certificate

The Cybersecurity and Information Security Administration certificate provides the RSI of a structured training program to develop individuals into journey-workers in the information security industry.

Certificate Requirements

Course Code	Course Title	Units
APPRT 498	Work Experience in Apprenticeable (Occupation)	0.5 -6
CISN 300	Network Systems Administration	3
CISN 340	Cisco Networking Academy CCNA: Introduction to Networks	3.5
CISS 310	Network Security Fundamentals	3
CISS 315	Ethical Hacking	3
CISS 316	Cisco Networking Academy(R): CyberOps Associate	3
CISS 321	Scripting for Cyber Security	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)	
CISS 350	Disaster Recovery	3
CISS 360	Computer Forensics and Investigation	3
Total Units:		**31 - 36.5**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Selection by the JAC.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- define best practices for configuring cyber defense and countermeasures.
- design organizational plans for securing data while maintaining the Confidentiality, Integrity, and Availability (CIA) of the information transmitted over communication networks.
- explain how security principles and cyber defense concepts impact organizational policies and practices.
- analyze security risks mitigation processes to identify, evaluate, prioritize, and prevent potential security threats.
- critique plans to secure and manage physical and virtual infrastructures for legal and secure cloud operations.
- outline legal issues that should be included within the security awareness training and education program of an organization.
- analyze applicable laws and policies to legally protect the organization against security incidents.
- determine how to address vulnerabilities and threats in cellular and mobile network technologies.
- prioritize and establish a disaster recovery plan for the enterprise.
- develop security incident response plans that align to an organization's security goals and objectives and maintain business continuity.

Career Information

The certificate prepares individuals for opportunities as journey-workers in the information security industry.

Enterprise Mainframe System Administration Certificate

The enterprise mainframe system administration certificate provides the Related Supplemental Instruction (RSI) of a structured training program to develop individuals into journey-workers in the mainframe industry.

Certificate Requirements

Course Code	Course Title	Units
CISP 300	Algorithm Design/Problem Solving	3
CISP 332	Introduction to REXX (REstructured Extended Executor) Programming (2)	2
CISC 330	z System Familiarization	4.5
CISC 331	z/OS Facilities	2
CISC 332	z/OS System Services Structure	2
CISC 333	SMP/E (System Modification Program Extended) for z/OS	2
A minimum of 16 units from the following:		16
APPRT 498	Work Experience in Apprenticeable (Occupation) (0.5 - 6)	
Total Units:		**31.5**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Student must be a registered Enterprise Mainframe System Administration apprentice.
- At least 18 years of age.
- Meets the requirements under the selection procedures of participating California state agencies.
- Engaged in learning a designated occupation and who has entered into a written apprentice agreement to participate in an apprenticeship program for a designated occupation under Department of Apprenticeship Standards' File No. 100451. Apprentice agreement must be approved by the apprenticeship committee.

Enrollment Process

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

- Apprentice selection process - Facilitated by the Joint Apprenticeship Committee (JAC): Application, aptitude assessment, interview with JAC and participating department, selection and confirmation, apprentice and department notification, signing ceremony.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- perform hardware-software upgrades.
- plan capacity.
- monitor systems.
- install an operating system.
- maintain system software or products running on a mainframe.
- perform day to day operations of the environment including change and problem management.

Career Information

Mainframe system administrator.

Enterprise Software Engineering and Development Apprenticeship Certificate

State of California Enterprise Software Engineering and Development Apprenticeship for the occupations of Enterprise Software Engineers and Enterprise Software Developers. In this program, apprentices shall satisfactorily complete the prescribed related and supplemental instruction (RSI) identified in the Apprenticeship Standards (File No. 100451) developed by the JAC while receiving on-the-job training in the designated occupation.

Certificate Requirements

Course Code	Course Title	Units
CISP 300	Algorithm Design/Problem Solving (3)	3 - 5
or CISP 370	Beginning Visual Basic (4)	
or CISP 480	Honors Introduction to Structured Programming (5)	
CISP 455	Intermediate Enterprise Software Development and Engineering	4.5
A minimum of 16 units from the following:		16
APPRT 498	Work Experience in Apprenticeable (Occupation) (0.5 - 4)	
Total Units:		**23.5 - 25.5**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- At least 18 years of age.

- Meets the requirements under the selection procedures of participating California state agencies.
- Engaged in learning a designated occupation and who has entered into a written apprentice agreement to participate in an apprenticeship program for a designated occupation under Department of Apprenticeship Standards' File No. 100451. Apprentice agreement must be approved by the apprenticeship committee.

Enrollment Process

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

- Apprentice selection process - Facilitated by the Joint Apprenticeship Committee (JAC): Application, aptitude assessment, interview with JAC and participating department, selection and confirmation, apprentice and department notification, signing ceremony.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- utilize techniques that are unique to enterprise level software engineering and development.
- utilize techniques and principles such as Agile and DevOps.
- synthesize enterprise level software solutions.
- analyze enterprise data to identify problems or room for improvement.

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Computer Info Science Certificate

This Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Computer Information Science offers advanced reading and writing skills at a post secondary level for English learners combined with introductory computer information skills. The combination of these skills can be used along their pathways to degrees, certificates, or transfer, and for use in multilingual office environments.

Certificate Requirements

Course Code	Course Title	Units
ESL 315	Intermediate-High Integrated Reading and Writing	6
ESL 325	Advanced-Low Integrated Reading and Writing	6
ESLL 320	Advanced-Low Listening and Speaking	3
A minimum of 6 units from the following:		6
CISA 305	Beginning Word Processing (2)	
CISA 315	Introduction to Electronic Spreadsheets (2)	
CISA 320	Introduction to Database Management (1)	
CISA 330	Desktop Publishing (2)	
CISC 310	Introduction to Computer Information Science (3)	
CISC 350	Introduction to Data Communications (1)	
CISN 340	Cisco Networking Academy CCNA: Introduction to Networks (3.5)	
CISN 341	CISCO Networking Academy (CCNA)tm:Switching, Routing, and Wireless Essentials (3.5)	
CISP 300	Algorithm Design/Problem Solving (3)	
CISP 360	Introduction to Structured Programming (4)	
CISS 300	Introduction to Information Systems Security (1)	
CISS 310	Network Security Fundamentals (3)	
CISW 300	Web Publishing (3)	
Total Units:		**21**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- write formal academic essays as well as apply techniques of written communication, sentence structure, word usage, punctuation, and spelling.
- employ reading strategies, such as summarizing, paraphrasing, and quoting and integrating outside sources into writing.
- analyze written communication and compose and organize paragraphs into effective documents.
- convey intended meaning, including accuracy in sound production, syllabification, and intonation.
- formulate and use a variety of interactive strategies effectively such as clarification, polite interruption, and agreement/disagreement strategies.
- participate in in-depth discussions effectively, take clear notes, and give oral presentations in a business environment.
- explain how a computer system works and differentiate between hardware and software components.

- explain the basic operations of networks.
- demonstrate the secure utilization of internet resources.
- demonstrate an understanding of the development and use of information systems in business.
- manipulate databases using database management software.
- build software solutions to business problems using internet technology.

Career Information

This certificate supports course work in a variety of computer science professions, including in multilingual work environments.

Internet Marketing Certificate

This certificate offers a program of study for students seeking jobs that require skills in technical marketing applications. It provides opportunities to combine traditional marketing theory with the technical skills needed in today's business environment. Courses address current technology-based business communications, marketing, Internet strategies, applications, and trends.

Certificate Requirements

Course Code	Course Title	Units
CISA 330	Desktop Publishing	2
CISA 340	Presentation Graphics	2
CISA 345	Technical Marketing Applications	2
CISA 346	Social Media Applications	1
CISW 350	Imaging for the Web	1
BUS 100	English for the Professional	3
MKT 330	Internet Marketing	3
Total Units:		**14**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and create effective Internet marketing strategies that enhance business relationships with present and future customers.
- apply communication theory, effective writing techniques, and presentation skills to business situations.
- utilize software applications designed to present and promote business in print and visual media.
- devise a marketing plan using social media applications and content platforms for marketing both small and large businesses.
- analyze various software applications for Search Engine Optimization (SEO), analytic tools, web-building and blog applications, email marketing, and other technical marketing tools.

Career Information

Career opportunities include titles such as social media administrator, digital marketing director, campaign specialist, marketing/events coordinator, media marketing, social media squad, Internet marketing communications, and communications and social media coordinator.

Technical Communications Certificate

This certificate offers an interdisciplinary program of courses in Technical Communications, Art/New Media, and Computer Information Systems to prepare students for a variety of technical writing and professional communication careers. The certificate includes the theory, writing skills, design background, and computer applications knowledge needed for jobs in technical communication.

Certificate Requirements

Course Code	Course Title	Units
ARTNM 352	Design for Publication (3)	2 - 3
or CISA 330	Desktop Publishing (2)	
CISA 305	Beginning Word Processing (2)	2 - 3
or BUSTEC 310	Introduction to Word/Information Processing (3)	
CISW 300	Web Publishing	3
A minimum of 3 units from the following:		3
BUS 100	English for the Professional (3)	
BUS 310	Business Communications (3)	
CISW 321	Web Site Development (3)	
Total Units:		**10 - 12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze audience information needs.
- compose concise, clearly written professional documents organized with the audiences' needs in mind.
- design print and online resources that communicate organizations' values, enhance readability, and are easy to use.

- demonstrate basic skills in the use of word processing, page design, and web design applications.
- evaluate organizations' communication goals and needs based on technical writing principles.

Career Information

Technical communicators find employment in medical, scientific, high tech, business, university, and government settings. They may write white papers, tutorials, reference and procedure manuals, help systems, user assistance video scripts, grants and proposals, and more.

Web Developer Certificate

This certificate offers a program of study for students seeking jobs in the fields of web-based programming and web application development. It provides opportunities to develop the necessary skills and aptitudes for creating and maintaining interactive, database-driven web applications.

Certificate Requirements

Course Code	Course Title	Units
CISC 320	Operating Systems	1
CISC 323	Linux Operating System	1
CISC 324	Intermediate Linux Operating System	1
CISP 300	Algorithm Design/Problem Solving (3)	3 - 5
or CISP 360	Introduction to Structured Programming (4)	
or CISP 370	Beginning Visual Basic (4)	
or CISP 401	Object Oriented Programming with Java (4)	
or CISP 480	Honors Introduction to Structured Programming (5)	
CISP 350	Database Programming	3
CISW 300	Web Publishing	3
CISW 310	Advanced Web Publishing (4)	4
or CISW 400	Client-side Web Scripting (4)	
CISW 370	Designing Accessible Websites	1
CISW 410	Database-Driven Web Applications	4
A minimum of 4 units from the following:		4
CISW 304	Cascading Style Sheets (2)	
CISW 350	Imaging for the Web (1)	
CISW 355	Web Imaging Projects (2)	
CISW 410	Database-Driven Web Applications (4)	
Total Units:		**25 - 27**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze how an interactive web application is developed using static web pages, forms, client-side scripts, server-side scripts, subroutine or class libraries, and relational databases.
- evaluate informational or business needs that could benefit from a web application and design an appropriate web application that address those needs.
- create and debug scripts in at least one client-side and at least one server-side scripting language.
- construct embedded Structured Query Language (SQL) commands to access, display, modify, add, and delete information via a web application.
- integrate graphic principles and programming functionality with a web application.
- demonstrate basic use of both Linux and Windows Operating System command-line interface.
- devise or choose efficient algorithms for the solution of problems using the control structures of structured programming.
- design software using object-oriented methods to develop event driven programs for both applets and applications.

Web Publishing (Front-End) Certificate

This certificate offers a program of study for students seeking jobs in the field of front-end web publishing. It provides opportunities to develop the necessary skills for creating, maintaining, and managing client sites. Program will include building websites with HyperText Markup Language (HTML), software applications using WYSIWYG (what you see is what you get) interfaces, and template sites using Content Management Systems (CMS). Program will also include Internet marketing skills using social media, creating video and graphics for web media, and search engine optimization (SEO) techniques.

Certificate Requirements

Course Code	Course Title	Units
CISW 300	Web Publishing	3
CISW 321	Web Site Development	3
CISW 350	Imaging for the Web	1
CISC 306	Introduction to Web Page Creation	1
CISA 345	Technical Marketing Applications	2
CISA 346	Social Media Applications	1
CISW 370	Designing Accessible Websites	1
A minimum of 5 units from the following:		5

Course Code	Course Title	Units
CISA 330	Desktop Publishing (2)	
CISW 304	Cascading Style Sheets (2)	
CISW 355	Web Imaging Projects (2)	
MKT 330	Internet Marketing (3)	
ARTNM 324	Digital Design (3)	
ARTNM 332	Digital Video (3)	
ARTPH 315	Trends in Software and Social Media for Photographers (3)	
Total Units:		**17**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- plan and build websites using HyperText Markup Language (HTML) and Cascading Style Sheets (CSS).
- create and edit websites using software application programs that provide a WYSIWYG (what you see is what you get) interface.
- build and manage websites using content management systems (CMS).
- design and manipulate graphics using software for photo editing, compressing, and retouching for numerous image and video file formats.
- develop marketing strategies using SEO (search engine optimization) techniques to achieve high results in organic Internet searches. This will include creative, technical, and analytical work.
- utilize social media applications to build audience with cloud based marketing tools such as blogs, social networking services, photo and video sharing apps, podcasts, eBooks, webinars, and more.
- analyze website stats, social media, apps and integration, link building, and monetization.
- identify web accessibility issues when designing web sites and social media posts.

Career Information

Web Designer Front End Web Developer Web And Media Design Specialist Content Editor Solutions Engineer-Media Media Manager Media Campaign Strategist/Specialist Internet Media Administrator Digital Marketing Director Marketing/Events Coordinator Social Media Squad Internet Marketing Communications Communications and Social Media Coordinator

Computer Information Science - Applications (CISA) Courses

CISA 126 Outlook: Basics

Same As: BUSTEC 126

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: BUSTEC 300.1

This course introduces Microsoft Outlook, the industry-leading personal information management software. Topics include understanding and navigating the Outlook environment, creating and sending email, using email special features, managing Outlook contacts, using an electronic calendar, and creating tasks and to-do items. Completion of BUSTEC 126/CISA 126 and BUSTEC 127/CISA 127 prepares students to pass the Microsoft Office Specialist (MOS) certification for the Microsoft Outlook application. This course is not open to students who have completed BUSTEC 126.

CISA 127 Outlook: Tools

Same As: BUSTEC 127

Units: 1

Hours: 18 hours LEC

Prerequisite: BUSTEC 126 or CISA 126 with a grade of "C" or better

Advisory: BUSTEC 300.1 with a grade of "C" or better

This course presents the advanced personal information management tools in Outlook. Topics include working with multiple email accounts, using rules and folders, incorporating advanced calendar and contact features, collaborating using sharing and delegate features, and customizing the Outlook user interface. In addition, the course covers the integration of Outlook with other applications in the Microsoft Office suite. Completion of BUSTEC 126/CISA 126 and BUSTEC 127/CISA 127 prepares students to pass the Microsoft Office Specialist (MOS) certification for the Microsoft Outlook application. This course is not open to students who have completed BUSTEC 127.

CISA 160 Project Management Techniques and Software

Same As: MGMT 142

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: ENGWR 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; CISC 300

This introductory course covers the responsibilities of a project manager. It includes the knowledge needed to manage a project, control costs, and schedule resources. It also introduces the use of project management software to track project resources, tasks, and milestones. This course is not open to students who have taken MGMT 142.

CISA 299 Experimental Offering in Computer Information Science - Applications

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

CISA 305 Beginning Word Processing

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: CISC 300

Transferable: CSU

This course introduces professional word processing skills and techniques that are essential to the entire document production process and global information sharing. Topics include basic skills such as creating, editing, and formatting word documents; as well as higher-level features such as creating tables, working with themes and graphics, and merging multiple documents.

CISA 306 Intermediate Word Processing

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: CISA 305 with a grade of "C" or better

Transferable: CSU

This course builds upon previous instruction in the use of a word processing application with an emphasis on advanced information documents and reports. It includes creating a business letter and flyer, editing an academic document according to MLA style, writing a business report, enhancing page layout and design in a newsletter.

CISA 315 Introduction to Electronic Spreadsheets

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: CISC 100 or 300

Transferable: CSU

This course introduces professional electronic spreadsheet skills that cover the entire spreadsheet production process. Topics include basic skills such as creating a worksheet, entering data, adding formulas and functions, formatting the worksheet, and checking for errors. This course also introduces similar skills essential to creating professional charts from a worksheet. These skills include planning and creating a chart, formatting a chart, summarizing data with sparklines, and identifying data trends.

CISA 316 Intermediate Electronic Spreadsheets

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: CISA 315 with a grade of "C" or better

Transferable: CSU

This course is a continuation of CISA 315 (Introduction to Electronic Spreadsheets) with an emphasis on worksheet automation and summarization, pivot tables, data management, analysis tools, and higher-level formulas and functions.

CISA 320 Introduction to Database Management

Units: 1

Hours: 9 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: BUSTEC 300.1 and CISC 300

Transferable: CSU

This course introduces the use of database management programs on the microcomputer. It includes designing a database; storing, searching, and updating files; and designing and producing printed reports.

CISA 322 Design and Development of Desktop Database Applications

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: CISA 320 with a grade of "C" or better

Transferable: CSU

This course covers strategies for the design and development of desktop database applications. Topics include database objects, data types, data integrity, relational tables, joins, relationships, domain constraints, complex queries, forms, reports, sharing data with other applications, and data maintenance.

CISA 330 Desktop Publishing

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: BUSTEC 100.1 and CISC 300

Transferable: CSU

This course provides an overview of desktop publishing (DTP) and a major desktop publishing application program. Students develop the page layout skills needed to produce newsletters, brochures, flyers, reports, and other marketing material. Additionally, it covers importing and placing graphics and text, using layers, master pages, frames, creating graphics using the pen tool, and working with color both digitally and in print.

CISA 331 Intermediate Desktop Publishing

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: CISA 330 with a grade of "C" or better

Advisory: BUS 100

Transferable: CSU

This course builds upon previous desktop publishing software concepts and study. Topics include working with effects and advanced techniques, 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.

CISA 340 Presentation Graphics

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: CISC 300

Transferable: CSU

This course introduces the basic concepts and applications of a presentation program that is used to present information in the form of a slide show. Topics include elements of good presentation design, slide organization, transition and animation effects, the integration of various software applications and media, plus the production of slide show presentations. In addition, the course introduces techniques for creating informational slides that can be printed, displayed on a monitor, shared in real time on the web, or saved as a video for others to watch.

CISA 345 Technical Marketing Applications

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: CISC 305 and 305

Transferable: CSU

This course provides an overview of online marketing applications. It includes creating websites using cloud-based software, building media-rich content for blogs, and developing marketing strategies using Search Engine Optimization (SEO) tools such as Google Analytics. It also covers email marketing software to create and manage mailing lists, newsletters, and automated campaigns. Additionally, it covers audience building with other cloud-based marketing tools such as podcasts, ebooks, webinars, and more. All software used in this course is free, cloud-based, and mobile.

CISA 346 Social Media Applications

Units: 1

Hours: 9 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: CISC 305 and 305

Transferable: CSU

This course introduces a variety of social media applications and content platforms for marketing both small and large businesses. It includes popular applications for online social networking services (such as Facebook Pages for business), microblogging (such as X formally Twitter), visual bookmark boards (such as Pinterest), video-sharing websites (such as YouTube channels), Internet short content and photo/video sharing apps (such as Instagram), and image editing mobile apps specifically for marketing (such as Canva). It also includes tracking social media, apps and integration, link building, and monetization.

CISA 348 Exploring Presentation Graphics

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Transferable: CSU

This course provides students with sufficient knowledge and skills to prepare presentations in a variety of courses. Topics include planning, designing, and preparing presentations; enhancing presentations with media; creating posters, tables, and statistical charts; interactivity, advanced animation, and hyperlinks; customizing a slide show; and collaborating, securing, and sharing a presentation.

CISA 499 Experimental Offering in Computer Information Science - Applications

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Computer Information Science - Core (CISC) Courses

CISC 100 Computer Fundamentals with Hands-on Lab

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

This introductory course develops basic computer skills needed for college-level courses, workplace productivity, and personal enrichment. It provides individuals who are new to computing or who have very little computing experience with slower paced, general, non-technical information as well as in-class hands-on instruction reinforcement. This course introduces common computer terminology and concepts, file management, electronic mail, online course management, productivity application software, and the Internet.

CISC 294 Topics in Computer Information Science - Core

Units: 0.5 - 5

Hours: 9 - 72 hours LEC

Prerequisite: None.

Current topics in computer science and information systems not covered by regular catalog offerings are examined. Topics and locations vary, including advanced subjects related to computer science, networking, programming, database, applications, PC support, security, communications, and web development and publishing. Field trips may be required.

CISC 295 Independent Studies in Computer Information Science - Core

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

CISC 299 Experimental Offering in Computer Information Science - Core

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

CISC 300 Computer Familiarization

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: ENGRD 116 and the ability to touch type.

Transferable: CSU

This course introduces fundamental and basic computer skills necessary for college-level courses, workplace productivity, and personal enrichment. Fundamental skills include computer terminology and concepts, online learning, and the Internet. Basic skills include word processing, electronic spreadsheets, database management, and presentation software.

CISC 305 Introduction to the Internet

Units: 1

Hours: 9 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: CISC 300 and 320

Transferable: CSU

This course provides an introduction to the Internet and how to effectively use essential online tools and services. Students explore browser fundamentals, search engines and advanced search strategies, email communication, Internet security, online research resources, and the creation of basic web pages using Hypertext Markup Language (HTML). The course also introduces foundational concepts in Artificial Intelligence (AI), examining how AI systems operate, where they are applied in everyday life and industry, and how they can be used ethically and responsibly in academic and professional settings.

CISC 306 Introduction to Web Page Creation

Units: 1

Hours: 9 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: CISC 305 and 305

Transferable: CSU

This course covers the production of web pages, including design, layout, construction, and presentation. A web authoring tool is used to format a web page and Extensible Hypertext Markup Language (XHTML) is introduced.

CISC 310 Introduction to Computer Information Science

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

C-ID: C-ID BUS 140; C-ID ITIS 120

This course examines computer science and careers in technology. Topics include computer history and basics, hardware and software, operating systems, the Internet and Web, privacy, cybersecurity, information systems, artificial intelligence, and societal issues. Also included is an introduction to programming and web coding basics.

CISC 320 Operating Systems

Units: 1

Hours: 18 hours LEC; 18 hours LAB

Prerequisite: None.

Transferable: CSU

This course introduces the basic features of the Windows operating system for the PC. Topics include managing files, folders, and libraries, operating system services, program management, maintenance of disks and storage media, Windows desktop, browser basics, and the Windows help system. A brief introduction to security and the command prompt is also covered.

CISC 323 Linux Operating System

Units: 1

Hours: 18 hours LEC; 18 hours LAB

Prerequisite: None.

Transferable: CSU

This course introduces the Linux operating system for microcomputers. Concepts include the kernel, file structures, daemons, graphical user interfaces (GUI), open source, file security and permissions. It also covers procedures for installing software, basic system administration and utilities, the Bourne again shell (BASH), command line interface utilities, and introduction to scripting topics.

CISC 324 Intermediate Linux Operating System

Units: 1

Hours: 18 hours LEC; 18 hours LAB

Prerequisite: CISC 323 with a grade of "C" or better

Transferable: CSU

This course is a continuation of CISC 323. Topics include boot loaders, Linux devices, and command line interface (CLI) system management utilities. It also covers advanced Bourne Again Shell (BASH) shell scripting, including looping and decision making logic structures. Alternatives to the BASH shell and regular expressions and text stream editors are introduced.

CISC 330 z System Familiarization

Units: 4.5

Hours: 81 hours LEC

Prerequisite: None.

Transferable: CSU

This course introduces the IBM z System's software and hardware. It covers the following IBM skills: Introduction to the z/OS (z Operating System) environment, fundamental system skills in z/OS, and z/OS Job Control Language (JCL) and utilities.

CISC 331 z/OS Facilities

Units: 2

Hours: 36 hours LEC

Prerequisite: CISC 330 with a grade of "C" or better

Transferable: CSU

This course introduces the base elements, optional features, and servers that are provided in z/OS. It focuses on the system service facilities that are provided by the z/OS Base Control Program (BCP). Topics include the functions of major software base elements in the management of jobs, tasks, storage, data, and problems. This course also addresses how these functions can be affected by the system programmer.

It also covers the services provided by the servers which execute in the z/OS environments, such as the Communications Server and the Security Server. Installation packaging options and steps to install the z/OS environments also are introduced.

CISC 332 z/OS System Services Structure

Units: 2

Hours: 36 hours LEC

Prerequisite: CISC 331 with a grade of "C" or better

Transferable: CSU

This course presents the structure and control blocks of the z/OS BCP (base control program) and system services. It prepares the new z/OS system programmer to identify potential bottlenecks and performance problems, perform initial error symptom gathering, and identify opportunities and requirements for tailoring a z/OS system. This course also provides prerequisite information needed for further training in specialized areas such as system measurement and tuning and system problem determination.

CISC 333 SMP/E (System Modification Program Extended) for z/OS

Units: 2

Hours: 36 hours LEC

Prerequisite: CISC 330 with a grade of "C" or better

Transferable: CSU

This course covers the SMP/E skills needed in the installation and maintenance of optional features and maintenance in the z/OS operating environment. Topics include the SMP/E database and invoke SMP/E to add, modify, or replace system elements.

This course also covers the SMP/E tasks involved in installing a z/OS product. It emphasizes interpreting results of SMP/E processing. Additional SMP/E concepts include modification control statements, the consolidated software inventory, zone structure, and error analysis. SMP/E commands such as RECEIVE, APPLY, ACCEPT, RESTORE, REPORT, and LIST are discussed.

More advanced topics include automated SMP/E delivery of z/OS and product maintenance over the Internet with an automated SMP/E process that downloads and installs IBM preventive and corrective service over the Internet.

CISC 350 Introduction to Data Communications

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: CISC 100

Transferable: CSU

This course introduces business data communication concepts, systems, technology, protocols, theory, and basic terminology. Specific topics include analog and digital data encoding and transmission; media; interfaces; packet, circuit, and broadcast networks; and data multiplexing.

CISC 351 Introduction to Local Area Networks

Units: 1

Hours: 18 hours LEC; 18 hours LAB

Prerequisite: None.

Advisory: CISC 320 and 350

Transferable: CSU

This course introduces local area networks (LAN) and provides hands-on training in LAN applications and network administration. Topics include planning, installing, and maintaining a LAN, responsibilities of the system administrator, and basic network security principles.

CISC 361 Information Technology Fundamentals

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: CISC 310, 320, and 350

Transferable: CSU

This course aligns with the Computer Technology Industry Association (CompTIA) A+ core 1 certification objectives. This course covers information technology topics related to mobile devices, networking, computer hardware, virtualization, and cloud computing.

CISC 362 Microcomputer and Applications Support

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Advisory: CISC 361 and 363

Transferable: CSU

This course is an in-depth investigation of the technical, business, soft, and self-management skills technicians need to provide effective customer service and support in an information technology (IT) environment. It introduces customer service and
problem solving skills needed for success in a small- or large-business environment.

CISC 363 Microcomputer Support Technical - Preparation for A+ Certification

Units: 3

Hours: 42 hours LEC; 36 hours LAB

Prerequisite: CISC 361 with a grade of "C" or better

Transferable: CSU

This course is the second of two courses providing a foundation in personal computer (PC) support. Hands-on skills include advanced component installation and configuration, troubleshooting component hardware, and configuring and troubleshooting major operating systems and networking hardware. This course along with CISC 361 prepares students for the Computing Technology Industry Association (CompTIA) A+ Certification exam.

CISC 495 Independent Studies in Computer Information Science - Core

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

CISC 498 Work Experience in Computer Information Science - Core

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Computer Information Science Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of computer information science. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

CISC 499 Experimental Offering in Computer Information Science - Core

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Computer Information Science - Data Science (CISD) Courses

CISD 299 Experimental Offering in Computer Information Science - Data Science

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

CISD 499 Experimental Offering in Computer Information Science - Data Science

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Computer Information Science - Networking (CISN) Courses

CISN 110 Networking Technologies - Preparation for N+ Certification

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Advisory: CISC 361 and 363

This is an introductory course in networking software and hardware. Topics include communication protocols; local, wide area, and virtual networks; intra- and inter-networks; network architectures; topologies; cloud computing; security; and the Open Systems Interconnect (OSI) model. This course, along with CISN 111, provides preparation for the Computer Technology Industry Association N+ certification test.

CISN 111 Intermediate Networking Technologies

Units: 2

Hours: 36 hours LEC

Prerequisite: CISN 110 with a grade of "C" or better

This is an intermediate course in networking software and hardware. Topics include network operating systems setup, analyzing network performance, diagnosing and repairing of network problems, and network security techniques. This course, along with CISN 110, provides preparation for the Computer Technology Industry Association N+ certification test.

CISN 117 Wireshark TCP/IPv4 and 6 Network Analysis

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: CISC 350

This course introduces the Wireshark protocol analyzer for use in diagnosing and troubleshooting poor performance or security-related problems in IPv4 and IPv6 networks. It focuses on Wireshark functionality and analysis of captured IPv4 and IPv6 traffic streams such as Dynamic Host Configuration Protocol (DHCP), Domain Name Systems (DNS), and Hypertext Transfer Protocol (HTTP). This course begins preparation for the Wireshark Certified Network AnalystTM certification exam.

CISN 119 TCP/IP Protocols

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: CISC 350

This course covers the TCP/IP protocol suite for the Internet. Information to support and manage TCP/IP is provided. Additional topics include routing; tunneling; IP addressing and subnetting; IP version 4 and IP version 6;
virtual private networks; network address translation; ports and sockets; and many other individual protocols.

CISN 120 Red Hat Linux System Administration I (RH124)

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: CISC 323 and 324

This is the first of two courses covering the core system administration tasks needed to manage Red Hat Enterprise Linux servers and introducing key command-line concepts and enterprise-level tools. Topics covered also include essential Linux administration tasks, including installation, establishing network connectivity, managing physical storage, and basic security administration.
This course is based on Red Hat® Enterprise Linux 8. This is the first course in preparation for the Red Hat Certified System Administrator (RHCSA) and Engineer (RHCE) certification examinations. ARC is a Red Hat Academy academic partner.

CISN 121 Red Hat Linux System Administration II (RH134)

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: CISN 120 with a grade of "C" or better

The is the second of two courses covering system administration tasks introducing more advanced administrative topics, such as storage management using LVM, SELinux management, and automated installation. This course goes deeper into enterprise Linux administration, including file systems and partitioning, logical volumes, SELinux, firewall configuration, and troubleshooting. This course is based on Red Hat® Enterprise Linux 8. This is the second course in preparation for the Red Hat Certified System Administrator (RHCSA) Engineer (RHCE) certification examinations. ARC is a Red Hat Academy academic partner.

CISN 122 Red Hat Linux System Administration III (RH254): Data Center Services

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: CISN 120 with a grade of "C" or better

The course is focused on deploying and managing network servers running caching domain name service (DNS), MariaDB, Apache HyperText Transport Protocol Daemon (HTTPD), Postfix SMTP nullclients, network file sharing with network file system (NFS) and server message block (SMB), iSCSI initiators and targets, advanced networking and firewall configurations, and the use of bash shell scripting to help automate, configure, and troubleshoot the system. This course is based on Red Hat® Enterprise Linux 7. This is the third course in preparation for the Red Hat Certified Engineer (RHCE) certification examination. ARC is a Red Hat Academy academic partner.

CISN 123 Red Hat Linux System Administration III (RH294): Automation with Ansible

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: CISN 121 with a grade of "C" or better

This course covers the use of Ansible® to automate system administration tasks such as provisioning, configuration, application deployment, and orchestration. Topics focus on how to install and configure Ansible® on a management workstation; prepare managed hosts for automation; write Ansible® Playbooks to automate tasks; and run playbooks to ensure servers are correctly deployed and configured. This course is based on Red Hat® Enterprise Linux 8 and Red Hat® Ansible® Engine 2.8. This is the third course in preparation for the Red Hat Certified Engineer (RHCE) certification examination. ARC is a Red Hat Academy academic partner.

CISN 299 Experimental Offering in Computer Information Science - Networking

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

CISN 300 Network Systems Administration

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: CISC 320, 350, and 351

Transferable: CSU

This course covers the installation and configuration of a Windows server in a client/server network. Topics include: introduction to Active Directory, local storage, file and print services, Group Policy, and basic security. Additional topics include: implementing IPv4 and IPv6, Dynamic Host Configuration Protocol (DHCP), and Domain Name System

(DNS) in Windows. It also introduces server virtualization using Hyper-V. This is one of three courses preparing students for the Microsoft Certified Solutions Associate MCSA: Windows Server certification exams.

CISN 302 Intermediate Network Systems Administration

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: CISN 300 with a grade of "C" or better

Transferable: CSU

This course covers intermediate system administration in a Windows client/server network. Topics include core services such as user and group management, network access, and data security. Additional topics include patch management, file services, system monitoring and auditing, Active Directory and Domain Name System, and Network Policy and Group Policy. This is one of three courses preparing students for the Microsoft Certified Solutions Associate MCSA: Windows Server 2019 certification exams.

CISN 306 Advanced Network Systems Administration

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: CISN 302 with a grade of "C" or better

Transferable: CSU

This course covers advanced server services and system administration in a Windows client/server network. Topics include advanced configuration tasks necessary to deploy, manage, and maintain a Windows Server infrastructure. It also covers advanced network and file services, Dynamic Access Control (DAC), fault tolerance, network load balancing, failover clustering, disaster recovery, Active Directory Certificate Services (AD CS), and Federation Services (AD FS). This is one of three courses preparing students for the Microsoft Certified Solutions Associate (MCSA): Windows Server 2012 certification exams.

CISN 307 Windows Active Directory Services

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: CISN 302 with a grade of "C" or better

Transferable: CSU

This course covers how to install, configure, and administer Microsoft Windows Active Directory services. It also focuses on implementing Group Policy and understanding the Group Policy tasks required to manage users and computers. Group Policies are used to configure and manage the user desktop environment, configure and manage software, and implement and manage security settings. Installation and configuration of Domain Naming System (DNS) and Windows Internet Naming System (WINS) are covered, as well as publishing, replication and the backup of the directory services database.

CISN 308 Internetworking with TCP/IP

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: CISN 302 with a grade of "C" or better

Transferable: CSU

This course covers how to install, configure, manage, and support a network infrastructure using the Microsoft Windows Server products. It focuses on TCP/IP and related services, including Dynamic Host Configuration Protocol (DHCP), Domain Naming System (DNS), Windows Internet Naming Service (WINS), Internet Information Server (IIS), Public Key Infrastructure (PKI) and certificate service, Internet protocol security (IPSec), Network Address Translation (NAT), and remote access. It also covers configuring Windows as a network router, Virtual Private Network (VPN) connectivity and managing a Windows deployment using Remote Installation Services (RIS).

CISN 320 Designing Windows Directory Services

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: CISN 302 with a grade of "C" or better

Transferable: CSU

This course covers how to design and administer Microsoft Windows Active Directory services, including Group Policy. Group Policies are used to configure and manage the user desktop environment, configure and manage software, and implement and manage security settings. Additional topics include virtual machine management, Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), Web Proxy, Virtual Private Network (VPN), and Branch Office infrastructure. This is one of two courses preparing students for the Microsoft Certified Solutions Expert (MCSE): Windows Server 2012 certification exams.

CISN 325 Windows Server Infrastructure: High Availability and Virtualization

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: CISN 302 with a grade of "C" or better

Transferable: CSU

This course covers the design, implementation, and maintenance of a Windows Server infrastructure in an enterprise scaled, highly virtualized environment. Topics include monitoring, failover, high availability, virtualization using Hyper-V, and certificate infrastructure. This is one of two courses preparing students for the Microsoft Certified Solutions Expert (MCSE): Windows Server 2019 certification exams.

CISN 340 Cisco Networking Academy CCNA: Introduction to Networks

Units: 3.5

Hours: 54 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: CISC 350, CISC 361, or CISN 110

Transferable: CSU

This course introduces data communication and networking fundamentals. It covers networking addressing, which includes calculations and conversions between binary, decimal, and hexadecimal numbering systems. It also surveys data communication hardware and software components and basic networking concepts. Topics include data communication, the Open Systems Interconnection (OSI) and Transmission Control Protocol and the Internet Protocol (TCP/IP) models, IP addressing and subnetting, routing concepts, LAN media, network configuration, troubleshooting, management, and analyses. This is the first course in preparation for the Cisco Certified Network Associate (CCNA) certification examination. American River College (ARC) is a certified Cisco Networking Academy and all courses are taught by Cisco Certified Academy Instructors (CCAI).

CISN 341 Cisco Networking Academy CCNA: Switching, Routing, and Wireless Essentials

Units: 3.5

Hours: 54 hours LEC; 27 hours LAB

Prerequisite: CISN 340 with a grade of "C" or better

Transferable: CSU

This is the second course in preparation for the Cisco Certified Network Associate (CCNA) certification examination. This course covers networking theory and routing technologies, including OSI Model, beginning router configurations, and routed and routing protocols. It continues and expands the study of binary, decimal, and hexadecimal numbering systems to change variable length subnet addressing. Students will perform basic network configuration and troubleshooting, identify and mitigate LAN security threats, and configure and secure a basic WLAN. American River College (ARC) is a certified Cisco Networking Academy, and all courses are taught by Cisco Certified Academy Instructors (CCAI).

CISN 342 Cisco Networking Academy CCNA: Enterprise Networking, Security, and Automation

Units: 3.5

Hours: 54 hours LEC; 27 hours LAB

Prerequisite: CISN 341 with a grade of "C" or better

Transferable: CSU

This is the third course in preparation for the Cisco Certified Network Associate (CCNA) certification examination. It provides advanced routing and switching technologies. Topics include advanced router configurations, network management, network design, WANs concepts, and network security. American River College (ARC) is a certified Cisco Networking Academy, and all courses are taught by Cisco Certified Academy Instructors (CCAI).

CISN 499 Experimental Offering in Computer Information Science - Networking

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Computer Information Science - Programming (CISP) Courses

CISP 299 Experimental Offering in Computer Information Science - Programming

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

CISP 300 Algorithm Design/Problem Solving

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: CISC 310

Transferable: CSU; UC

General Education: Local GE L2

This course introduces methods for solving typical computer problems through algorithm design. Topics include assessing and analyzing computer problems in a top-down, divide-and-conquer approach that leads to a programming solution. It also covers programming plans and detailed design documents from which source code versions of programs are created.

CISP 310 Computer Architecture and Organization

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: CISP 360 or 480 with a grade of "C" or better

Transferable: CSU; UC

C-ID: C-ID COMP 142

This course covers the organization and behavior of real computer systems at the assembly-language level. Topics include the mapping of statements and constructs in a high-level language onto sequences of machine instructions, as well as the internal representation of simple data types and structures. Numerical computation is examined, noting the various data representation errors and potential procedural errors.

CISP 332 Introduction to REXX (REstructured Extended Executor) Programming

Units: 2

Hours: 36 hours LEC

Prerequisite: CISC 330 with a grade of "C" or better

Transferable: CSU

This course is designed to teach the basic skills required to write programs using the REstructured eXtended eXecutor (REXX) language in z/OS. The course covers the Time Share Option (TSO) extensions to REXX and interaction with other environments such as the Multiple Virtual Storage (MVS) console, running REXX in batch jobs, and compiling REXX.

CISP 350 Database Programming

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: CISA 320 and CISC 310

Transferable: CSU; UC

General Education: Local GE L2

This is an introductory course in Structured Query Language (SQL) database programming. Topics include database normalization, subqueries, joins, import/export, privileges, and Procedural Language (PL)/SQL programming.

CISP 360 Introduction to Structured Programming

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: CISP 300 or 370 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L2

C-ID: C-ID COMP 112

This course is an introduction to structured programming and objects. Topics include program design, documentation, testing, and debugging, as well as data representation, data types, variables, constants, and operators. It also includes control structures, functions, interactive and file input/output, standard libraries, arrays, pointers, structures, classes, and objects.

CISP 370 Beginning Visual Basic

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: CISC 310 and CISP 300

Transferable: CSU; UC

This introductory programming course covers the development of Windows-based desktop applications using Visual Basic (VB). Topics include best practices for Graphical User Interface (GUI) design, use of the VB application development software, organizing code into procedures and functions, variable scope, structures, arrays, input data validation, calculation, file input and output, and multiple-

window applications. This course is designed for those who want a strong foundation in basic programming and building GUI applications.

CISP 400 Object Oriented Programming with C++

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: CISP 360 or 480 with a grade of "C" or better

Advisory: CISC 323

Transferable: CSU; UC

General Education: Local GE L2

C-ID: C-ID COMP 122

This course is an introduction to the C++ programming language and object-oriented programming in the Linux/UNIX environment. Topics include a programming languages overview, program analysis and design, encapsulation, overloading, classes, inheritance, virtual functions, polymorphism, templates, exception handling, and the standard template library. In addition, it covers basic Linux/UNIX commands and make files are covered.

CISP 401 Object Oriented Programming with Java

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: CISP 360 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L2

This course introduces object-oriented programming using the Java programming language. Topics include objects, inheritance, polymorphism, interfaces, abstract classes, inner classes, error handling, graphical user interfaces (GUI), applets, threads, files, databases, and packages.

CISP 430 Data Structures

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: CISP 400 or 401 with a grade of "C" or better

Transferable: CSU; UC

C-ID: C-ID COMP 132

This course applies object-oriented techniques for systematic problem analysis and the managing of program complexity using abstraction. Specification, design, coding, testing, and documentation of large multi-file programs are covered. It uses advanced language features such as classes, strings, non-text files, pointers, and recursion. Abstract data types such as stacks, queues, lists, binary trees, heaps/priority queues, hash tables, and graphs are examined. Various sorting and searching algorithms are presented and analyzed using Big-O notation.

CISP 440 Discrete Structures for Computer Science

Units: 3

Hours: 54 hours LEC

Prerequisite: CISP 360 and MATH 372 with grades of "C" or better

Corequisite: CISP 430

Transferable: CSU; UC

General Education: Local GE L2

C-ID: C-ID COMP 152

This course is an introduction to the discrete structures used in computer science with an emphasis on their applications. Topics include functions, relations, and sets; basic logic; proof techniques; basics of counting; graphs and trees; and discrete probability.

CISP 455 Intermediate Enterprise Software Development and Engineering

Units: 4.5

Hours: 81 hours LEC

Prerequisite: None.

Transferable: CSU

This is the second in a series of two courses that focus on the development and engineering of software products in an enterprise environment. This course introduces DevOps practices, introductory level programming, web development, and design patterns.

CISP 480 Honors Introduction to Structured Programming

Units: 5

Hours: 72 hours LEC; 54 hours LAB

Prerequisite: Placement into ENGL C1000H (formerly ENGWR 480) through the Los Rios placement process OR guided self-placement

Advisory: CISC 310

Transferable: CSU; UC

General Education: Local GE L2

C-ID: C-ID COMP 112

This honors course combines the content of both CISP 300 and CISP 360 and presents it in an accelerated fashion emphasizing projects and collaborative work. It introduces methods for solving typical computer problems by assessing and analyzing computing problems, performing algorithm design using a top-down, divide and conquer approach, and continues with implementation, documentation, testing, and debugging. Topics include structured programming, data representation, data types, variables, constants, operators, and expression evaluation. It also includes control structures, functions, interactive and file input/output, standard libraries, arrays, pointers, structures, classes, and objects. Pseudocode and an object-oriented programming language are used to create program solutions. This course is not open to students who have completed CISP 300 or CISP 360.

CISP 499 Experimental Offering in Computer Information Science - Programming

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Computer Information Science - Security (CISS) Courses

CISS 300 Introduction to Information Systems Security

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: CISC 320, 350, and 351

Transferable: CSU

This course provides an introduction to network-based and internet-based security applications and standards. Topics include encryption, security protocols, network security applications, digital signatures, protecting computers and the network from viruses, Trojans, spyware, unsolicited email, and public and private key exchange.

CISS 310 Network Security Fundamentals

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: CISN 300 or 340

Transferable: CSU

This course is an introduction to the fundamental principles and skills of Information Technology security and risk management at the organizational level. Topics include network security, compliance and operational security, threats and vulnerabilities, application and data security, host security, access control and identity management, and cryptography. It also covers the required content of the Computing Technology Industry Association (CompTIA) Security+.

CISS 315 Ethical Hacking

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: None.

Corequisite: CISS 310; Students with a current CompTIA Security+ certification do not need to take CISS 310 prior or concurrently to enrolling in this course.

Advisory: CISC 300

Transferable: CSU

This course introduces the network security specialist to the various methodologies for attacking a network. Topics include the concepts, principles, and techniques necessary to attack and disable a network within the context of properly securing a network. It emphasizes network attack techniques and methodologies and appropriate defenses and countermeasures. Supplementary hardware and software may be required.

CISS 316 Cisco Networking Academy(R): CyberOps Associate

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: CISS 310 with a grade of "C" or better

Transferable: CSU

This course covers knowledge and skills needed to successfully handle the tasks, duties, and responsibilities of an associate-level Security Analyst working in a Security Operations Center (SOC). It also covers topics to prepare for the Cisco Certified CyberOps Associate industry certification.

CISS 321 Scripting for Cyber Security

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: CISN 340, CISS 310, or CISS 315 with a grade of "C" or better

Transferable: CSU

This course is designed to cover tools that are commonly used by Information Security Professionals. Modern Operating Systems and scripting languages will be discussed as well as utilities and technologies that enable them. Topics including securing, hardening systems, incident response, automating tasks, auditing, and vulnerability assessment will be covered.

CISS 330 Implementing Internet Security and Firewalls

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: CISS 310 with a grade of "C" or better; Students with a current CompTIA Security+ certification do not need to take CISS 310 prior or concurrently to enrolling in this course.

Transferable: CSU

This course covers network and Internet security and deployment of industry standard countermeasures, including configuring Virtual Private Network (VPN) connections. Topics include the evaluation, implementation, and management of secure remote-access technologies. Students learn to configure network firewalls to allow access to key services while maintaining security.

CISS 341 Implementing Windows Operating System Security

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: CISS 310 with a grade of "C" or better; Students with a current CompTIA Security+ certification do not need to take CISS 310 prior or concurrently to enrolling in this course.

Advisory: CISC 320 and 351

Transferable: CSU

This course provides in-depth information on the Microsoft Windows desktop operating system security features, as well as step-by-step configuration for effective operating system security. The techniques needed in order to maintain the integrity, authenticity, availability, and privacy of the system and user data are covered.

CISS 342 Implementing Linux Operating System Security

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: CISS 310 with a grade of "C" or better; Students with a current CompTIA Security+ certification do not need to take CISS 310 prior or concurrently to enrolling in this course.

Advisory: CISC 323 and CISS 310

Transferable: CSU

This course provides in-depth information on Linux/UNIX operating system security features, as well as step-by-step configuration for effective operating system security. The techniques needed in order to maintain the integrity, authenticity, availability, and privacy of the system and user data are covered.

CISS 350 Disaster Recovery

Units: 3

Hours: 54 hours LEC

Prerequisite: CISS 310 with a grade of "C" or better; Students with a current CompTIA Security+ certification do not need to take CISS 310 prior or concurrently to enrolling in this course.

Transferable: CSU

This course provides methods for identifying vulnerabilities and implementing countermeasures to prevent and mitigate failure risks in the information technology infrastructure for the business enterprise. Topics include disaster recovery, development of a disaster recovery plan, risk assessment, and development and implementation of disaster recovery policies and procedures.

CISS 352 Information Systems Governance and Auditing

Units: 3

Hours: 54 hours LEC

Prerequisite: CISS 310 with a grade of "C" or better; Students with a current CompTIA Security+ certification do not need to take CISS 310 prior or concurrently to enrolling in this course.

Transferable: CSU

This course is an introduction to the fundamental principles and skills of providing and governing audit services in accordance with Information Systems (IS) audit standards to

assist the organization in protecting and controlling information systems. The required content of the ISACA Certified Information Systems Auditor (CISA) is covered.

CISS 354 Information Systems Risk Analysis and Security Controls Development

Units: 3

Hours: 54 hours LEC

Prerequisite: CISS 310 with a grade of "C" or better; Students with a current CompTIA Security+ certification do not need to take CISS 310 prior or concurrently to enrolling in this course.

Transferable: CSU

This course is an introduction to the fundamental principles and skills of assessing risk to assist the organization in protecting and controlling information systems. The required content of the ISACA Certified in Risk and Information Systems Control (CRISC) is covered. The Certified Information Systems Security Professional (CISSP) Security And Risk Management domain is also addressed.

CISS 358 Information Systems Incident Response

Units: 3

Hours: 54 hours LEC

Prerequisite: CISS 310 with a grade of "C" or better; Students with a current CompTIA Security+ certification do not need to take CISS 310 prior or concurrently to enrolling in this course.

Transferable: CSU

This course is an introduction to the fundamental principles and practical skills of incident response, including incident detection, analysis, containment, eradication, recovery, and post-incident review. Students learn to apply industry frameworks, develop communication and documentation strategies, and coordinate technical and managerial responses to security events. The course addresses the Certified Information Systems Security Professional (CISSP) Security Operations domain.

CISS 360 Computer Forensics and Investigation

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: None.

Corequisite: CISS 310; Students with a current CompTIA Security+ certification do not need to take CISS 310 prior or concurrently to enrolling in this course.

Advisory: CISC 324 and CISS 350

Transferable: CSU

This course introduces the methods used to conduct a computer forensics investigation. Topics include an overview of computer forensics as a profession, the computer investigation process, operating systems' boot processes and disk structures, data acquisition and analysis, ethics, and a review of standard computer forensic tools. The course topics map to the objectives of the International Association of Computer Investigative Specialists (IACIS) certification.

CISS 362 Information Systems Privacy

Units: 3

Hours: 54 hours LEC

Prerequisite: CISS 310 with a grade of "C" or better; Students with a current CompTIA Security+ certification do not need to take CISS 310 prior or concurrently to enrolling in this course.

Transferable: CSU

This course is an introduction to building and implementing privacy solutions aligned with organizational needs and goals. The required content of the ISACA Certified Data Privacy Solutions Engineer (CDPSE) is covered. The Certified Information Systems Security Professional (CISSP) Security and Risk Management domain is also addressed.

Computer Information Science - Web (CISW) Courses

CISW 299 Experimental Offering in Computer Information Science - Web

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

CISW 300 Web Publishing

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: CISC 300, 305, and 305

Transferable: CSU; UC

This course is an introduction to publishing on the web. Topics include creating web pages with Hyper Text Markup Language (HTML) and Cascading Style Sheets (CSS), organizing a series of pages into a website, and uploading web pages to a server. This course makes extensive use of the computer tools necessary to insert HTML tags, create images, and view web documents. It takes beginning web designers through the process of designing, building, and publishing a working website.

CISW 304 Cascading Style Sheets

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: CISW 300 with a grade of "C" or better

Transferable: 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 Hypertext Markup Language (HTML).

CISW 310 Advanced Web Publishing

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: CISW 300 with a grade of "C" or better

Transferable: CSU

This course builds upon previous web publishing concepts and study. It focuses on learning the JavaScript language and the development of interactive web pages. Topics include jQuery libraries, cascading style sheets, HTML, forms, and client-side scripting with JavaScript.

CISW 321 Web Site Development

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: CISC 305, CISC 305, and CISW 300

Transferable: CSU

This course covers the use of current web software applications, HTML/CSS, and Content Management Systems (CMS) to make websites. Topics include creating responsive web pages that contain text, images, links, tables, forms, and multimedia. Additional topics include developing effective website design and layout, how to use templates, Search Engine Optimization (SEO) techniques, and metatags.

CISW 350 Imaging for the Web

Units: 1

Hours: 9 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: CISC 306 or CISW 300

Transferable: CSU

This course covers, in depth, graphics for the Web. It uses industry-standard graphic software to technically develop original graphics as well as to manipulate found imagery. Topics include web file formats, image optimization and compression for online use, photo correction, and image enhancement. Students will extract, combine, and refine visual elements using layers, masks, and channels, while also learning to apply AI-driven tools such as generative fill, neural filters, and intelligent selections.

CISW 355 Web Imaging Projects

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: CISW 350 with a grade of "C" or better

Transferable: CSU

Create polished, professional digital images for websites and social media while mastering advanced, efficiency-driven imaging tools. Through practical, simulated client projects, students build a strong portfolio of real-world work. Topics include advanced image creation and editing techniques, large-scale batch processing and actions, embedding copyright and metadata into original images, and AI-powered features such as Generative Fill, Neural Filters, and intelligent selections.

CISW 370 Designing Accessible Websites

Units: 1

Hours: 18 hours LEC

Prerequisite: CISW 300 with a grade of "C" or better

Transferable: CSU

This course provides an overview of the methods that are used to design websites for people with disabilities. Current legal requirements for accessible websites, especially the Americans with Disabilities Act (ADA), are emphasized.

CISW 400 Client-side Web Scripting

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: CISW 300 with a grade of "C" or better

Advisory: CISP 300 and CISW 310

Transferable: CSU

This course emphasizes the creation of dynamic and interactive web sites using a client-side scripting language such as JavaScript/Ajax. Topics include the Document Object Model of web pages, core features of the client-side scripting language, event handling, control of windows and frames, functions, and form validation.

CISW 410 Database-Driven Web Applications

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: CISW 300 completed with a grade of 'C' or better, and one of the following completed with a grade of 'C' or better CISP 300 CISP 370 CISP 480

Transferable: CSU

This course emphasizes the creation of interactive web sites using a server side scripting environment. Topics include core features of a 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 499 Experimental Offering in Computer Information Science - Web

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Dance

Overview

ARC's Dance program offers a diverse line-up of course offerings, including belly dancing, Polynesian dance, ballet, modern dance, ballroom dance, hip hop, and more. We offer an associate degree in dance. In addition, ARC Dance students have opportunities to perform at live concerts every spring and fall.

Degrees Offered

A.A. in Dance

Interim Dean: Heather Moody

Phone: (916) 484-8201

Email: askhb-healthed@arc.losrios.edu

Associate Degree

A.A. in Dance

This degree provides an educational and practical foundation for students pursuing a professional career in dance. It is designed to create avenues toward further study and employment in educational dance, choreography, cultural dance, and dance performance. Topics include cultural dance forms, intermediate dance technique, performance studies, and nutrition. Students interested in transferring to a four-year college should meet with a counselor to determine the appropriate coursework.

Degree Requirements

Course Code	Course Title	Units
Cultural:		
A minimum of 2 units from the following:		2
DANCE 300	Diverse Cultures in Dance (1)	
DANCE 301	Belly Dancing (1)	
DANCE 302	African Dance (1)	
DANCE 304	Polynesian Dance I (1)	
DANCE 305	Hawaiian Dance I (1)	
DANCE 306	Polynesian Dance II (1)	
DANCE 307	Hawaiian Dance II (1)	
DANCE 326	Ballet: Variations and Combinations (2)	
DANCE 352	Hip Hop II (1)	
DANCE 353	Hip Hop III (1)	
DANCE 360	Tap Dance I (1)	
Technique:		
A minimum of 8 units from the following:		8
DANCE 312	Jazz Dance II (1)	
DANCE 313	Jazz Dance III (1)	
DANCE 314	Jazz Dance IV (1)	

Course Code	Course Title	Units
DANCE 315	Jazz Dance V (1)	
DANCE 321	Ballet II (1)	
DANCE 322	Ballet III (1)	
DANCE 323	Ballet IV (1)	
DANCE 324	Ballet V (1)	
DANCE 332	Modern Dance II (1)	
DANCE 333	Modern Dance III (1)	
DANCE 334	Modern Dance IV (1)	
DANCE 335	Modern Dance V (1)	
DANCE 341	Ballroom Dance II (1)	
DANCE 342	Ballroom Dance III: Club Dancing (1)	
DANCE 343	Ballroom Dance IV: Latin (1)	
DANCE 344	Ballroom Dance V: Swing (1)	
DANCE 345	Ballroom Dance VI: Tango (1)	
DANCE 361	Tap Dance II (1)	
DANCE 362	Tap Dance III (1)	
DANCE 363	Tap Dance IV (1)	
DANCE 377	Musical Theatre Dance I (2)	
DANCE 390	Contemporary Dance I (1)	
DANCE 401	Pre-Pointe and Conditioning (1)	
Choreography:		
A minimum of 2 units from the following:		2
DANCE 403	Choreographic Studies (2)	
Production:		
A minimum of 3 units from the following:		3
DANCE 415	Dance Production: Rehearsal and Backstage Organization (3)	
DANCE 416	Dance Production: Choreography and Costumes (3)	
DANCE 417	Dance Production: Studio and Stage (3)	
Performance:		
A minimum of 3 units from the following:		3
DANCE 430	Jazz Dance Performance Group (3)	
DANCE 431	Performance Group: SunDance Project (3)	
DANCE 432	Dance Performance: Contemporary Dance Alliance (3)	
Total Units:		**18**

The Dance Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe the basic structure of the human body and its potential for movement
- recount the historical and personal significance of cultural dance
- list the educational requirements for employment as a dance educator
- compare the standards of class etiquette required for participation in ballroom, urban Hip Hop, modern, and ballet dance courses
- discuss the level of training and commitment required for a concentration in dance performance
- evaluate current trends, philosophies, and companies in professional dance
- examine twelve areas for improvement in performance level
- justify the importance of visualization, creativity, and critical feedback in dance education
- demonstrate the necessary technique and performance skill for audition into a four-year institution or application to entry level employment in a professional dance setting
- notate choreography and transpose from video into movement

Career Information

This degree is designed for those pursuing a career in professional dance. It prepares dancers for entry-level positions and for transfer to four-year colleges and universities.

Dance (DANCE) Courses

DANCE 300 Diverse Cultures in Dance

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course compares and contrasts three forms of indigenous, ethnic, and culturally derived dance. Students learn the traditional significance, origins, movement patterns, and basic steps of the dance form. Field trips may be required.

DANCE 301 Belly Dancing

Units: 1

Hours: 54 hours LAB

Course Family: Cultural Dance

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course covers the basic movements, cultural values, and history of belly dance. It includes warmups, movement across the floor, center floor work, combinations, dances, and performance technique. Musical instruments, rhythms, costumes, and choreography are also covered. Field trips may be required.

DANCE 302 African Dance

Units: 1

Hours: 54 hours LAB

Course Family: Cultural Dance

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course covers basic movement from African and West African styles of dance. Afro-Haitian and Afro-Caribbean styles may also be included, as well as an investigation of the Dunham technique and process of African dance. It includes beginning level warmup, across the floor movement, and center combinations to varied drum rhythms. No previous dance experience is necessary. Field trips may be required.

DANCE 304 Polynesian Dance I

Units: 1

Hours: 54 hours LAB

Course Family: Cultural Dance

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course covers basic dances from Polynesia, including dances from Tahiti, Hawaii, and New Zealand. Topics include: warm ups, center dances, and cultural vocabulary. The origin, history, and cultural importance of Polynesian dance is presented. No dance experience is necessary for this course. Field trips may be required.

DANCE 305 Hawaiian Dance I

Units: 1

Hours: 54 hours LAB

Course Family: Cultural Dance

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course covers the basic components of Hawaiian dance within its traditional context. It provides an opportunity to study the history, origin, and cultural importance of hula. Topics include: basic Hawaiian vocabulary for dance and the creation of floral adornments. This course is for students with little or no experience in Hawaiian dance. Field trips may be required.

DANCE 306 Polynesian Dance II

Units: 1

Hours: 54 hours LAB

Course Family: Cultural Dance

Prerequisite: None.

Enrollment Limitation: DANCE 304 with a grade of "C" or better or by audition.

Transferable: CSU; UC

General Education: Local GE L7A

This course offers further study of Polynesian dance within its traditional context. It continues the basic technique of Polynesian dance begun in DANCE 304 with a more rigorous training approach by adding faster tempos and more complex components. This course includes more intricate rhythms, timing, and footwork, with the original meanings and historical content intact. The origin, history, and vocabulary of Polynesian dances are explored with an emphasis on the current cultural importance of Polynesian dance within a changing society. This course is for students with previous training in Polynesian dance. Field trips may be required.

DANCE 307 Hawaiian Dance II

Units: 1

Hours: 54 hours LAB

Course Family: Cultural Dance

Prerequisite: None.

Enrollment Limitation: DANCE 305 with a grade of "C" or better or by audition.

Transferable: CSU; UC

General Education: Local GE L7A

This course offers further study of Hawaiian dance within its traditional context. It continues the basic hula technique begun in DANCE 305 with a more rigorous training approach by adding faster tempos and more complex components. This course includes more intricate footwork, timing, and communication of the steps with the original meanings and historical content intact. The origin, history, and vocabulary of Hawaiian dances are explored with an emphasis on the current cultural importance of hula in a changing Hawaiian population. This course is for students with previous training in Hawaiian dance. Field trips may be required.

DANCE 310 Jazz Dance I

Units: 1

Hours: 54 hours LAB

Course Family: Jazz Dance Technique

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course covers the concepts of beginning alignment, simple balance, single turns, and basic technique for jazz dance. It provides a foundation in the basic steps, vocabulary, history, and traditions of various jazz dance styles. The focus is on small group dances that use space in a full-out and presentational style. This course is for students without previous dance training. Field trips may be required.

DANCE 312 Jazz Dance II

Units: 1

Hours: 54 hours LAB

Course Family: Jazz Dance Technique

Prerequisite: DANCE 310 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course continues to refine the basic skills begun in DANCE 310 and further instills proper alignment and technique for jazz dance. It offers an opportunity to explore new learning styles through the continued study of jazz dance with more complex rhythms, new vocabulary, varied methods of counting, and new spatial problems to be solved. This course is for students with some previous jazz dance training. Field trips may be required.

DANCE 313 Jazz Dance III

Units: 1

Hours: 54 hours LAB

Course Family: Jazz Dance Technique

Prerequisite: DANCE 312 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course continues the foundation of basic steps and turns begun in DANCE 312 and further instills proper alignment and technique. It introduces more complex combinations in center, a greater vocabulary of movement across the floor, and a better understanding of technique for multiple jazz turns. This course is for students with previous jazz dance training. Field trips may be required.

DANCE 314 Jazz Dance IV

Units: 1

Hours: 54 hours LAB

Course Family: Jazz Dance Technique

Prerequisite: DANCE 313 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course continues the study of jazz dance focusing on allegro movement studies with quicker, more complex combinations in center, a more difficult vocabulary of movement across the floor, and progressive technique for multiple jazz turns. It emphasizes changes of directions, dynamics, and levels. This course is for students with previous jazz dance training. Field trips may be required.

DANCE 315 Jazz Dance V

Units: 1

Hours: 54 hours LAB

Course Family: Jazz Dance Technique

Prerequisite: DANCE 314 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course continues the study of jazz dance with rigorous emphasis on allegro movement, jumps, leaps, and technique for multiple turns. Topics include the propensity of jazz dance to absorb the movements of many cultures and to utilize the

current social climate in reflecting the era in dance. This course is for students with previous jazz dance training. Field trips may be required.

DANCE 320 Ballet I

Units: 1

Hours: 54 hours LAB

Course Family: Ballet Technique

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course covers the basic alignment, steps, and technique suitable for beginners in ballet. It provides a foundation in the etiquette, vocabulary, and traditions of classical ballet and allows for certain physical modifications to the turnout that is required in more advanced coursework. Included is a progression of barre exercises designed to develop alignment, strength, range of motion, and balance. This course is for students with little or no ballet training. Field trips may be required.

DANCE 321 Ballet II

Units: 1

Hours: 54 hours LAB

Course Family: Ballet Technique

Prerequisite: None.

Enrollment Limitation: DANCE 320 with a grade of "C" or better or by audition.

Transferable: CSU; UC

General Education: Local GE L7A

This course reinforces the foundation begun in DANCE 320 and offers an opportunity to perfect basic steps while introducing new combinations at the barre. The origins and purpose of ballet are introduced, along with new vocabulary words, more complex barre combinations and more intricate steps across the floor. The emphasis is on balance, using pli&#xFFFD;, and extending range of motion. This course is for students with some basic ballet training. Field trips may be required.

DANCE 322 Ballet III

Units: 1

Hours: 54 hours LAB

Course Family: Ballet Technique

Prerequisite: None.

Enrollment Limitation: DANCE 321 with a grade of "C" or better or by audition.

Transferable: CSU; UC

General Education: Local GE L7A

This course refines the technique begun in DANCE 321 and introduces more complex steps, new vocabulary, and longer, more difficult combinations. The emphasis is on technique for vertical jumps, multiple turns, and higher extensions with focus also on the continued development of strength. This course is for students with previous ballet training. Field trips may be required.

DANCE 323 Ballet IV

Units: 1

Hours: 54 hours LAB

Course Family: Ballet Technique

Prerequisite: None.

Enrollment Limitation: DANCE 322 with a grade of "C" or better or by audition.

Transferable: CSU; UC

General Education: Local GE L7A

This course continues the study of ballet begun in DANCE 322, focusing on concepts for improved technique, better balance, and stronger placement for the upper body. Allegro and adagio combinations are introduced and warm ups are designed to prepare for more difficult center work. This course is for students with previous ballet training. Field trips may be required.

DANCE 324 Ballet V

Units: 1

Hours: 54 hours LAB

Course Family: Ballet Technique

Prerequisite: None.

Enrollment Limitation: DANCE 323 with a grade of "C" or better or by audition.

Transferable: CSU; UC

General Education: Local GE L7A

This course continues the study of ballet technique begun in DANCE 323 and promotes greater learning by offering a wider variety of steps, new vocabulary, more difficult barre, turns, leaps, historical information, and the introduction of basic partner dances. This course is designed for students with previous ballet technique and experience. Field trips may be required.

DANCE 326 Ballet: Variations and Combinations

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Course Family: Ballet Technique

Prerequisite: None.

Enrollment Limitation: DANCE 324 or DANCE 325 or by audition.

Transferable: CSU; UC

General Education: Local GE L7A

This course utilizes technique and history covered in all previous ballet courses and initiates the process of studying and interpreting ballet variations and combinations. Combinations are newly created and appropriate for each dancer, while performance of variations, traditionally given as a reward for hard work, will be assigned by individual merit and group ability. New vocabulary, variation details, shocking dance history, famous performances, and the ballets that they sprang from are covered. This course may only be taken en pointe by permission and is designed for more experienced dancers. Field trips may be required.

DANCE 330 Modern Dance I

Units: 1

Hours: 54 hours LAB

Course Family: Modern Dance Technique

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course provides a solid foundation in technique, alignment, and vocabulary for modern dance. It offers study in the history and traditions of modern dance and an appreciation for its importance in American dance. Individual expression and creativity are encouraged with an emphasis on problem solving and techniques for dealing with basic design, time, shape, and energy concepts for modern dance movement. This course is for students with little or no modern dance training. Field trips may be required.

DANCE 332 Modern Dance II

Units: 1

Hours: 54 hours LAB

Course Family: Contemporary Dance Technique

Prerequisite: DANCE 330 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course furthers the study of modern dance begun in DANCE 330 and continues the emphasis on organic movement that fills space with dynamic movements and an energetic flow of the body. Momentum and extension from the core of the body are introduced as well as explorations in space and energy. This course is designed for students with some experience in modern dance technique. Field trips may be required.

DANCE 333 Modern Dance III

Units: 1

Hours: 54 hours LAB

Course Family: Modern Dance Technique

Prerequisite: DANCE 332 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course furthers the technical study of modern dance that was begun in DANCE 332 and extends the technique to include studies of time and distance. It encourages technique that results in full out movement, better alignment for strength and balance, and concepts for hopping, jumping, and leaving the ground. The study of modern dance innovators is included. This course is for students with some experience in modern dance technique. Field trips may be required.

DANCE 334 Modern Dance IV

Units: 1

Hours: 54 hours LAB

Course Family: Modern Dance Technique

Prerequisite: DANCE 333 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course furthers the technique of modern dance studied in DANCE 333 and places the emphasis on explorations of percussive, sustained, and suspended movement qualities with time and effort changes. Utilizing exact repetition, gradual changes, and the human breath, exercises to maintain technique are developed for strength training and imagery as well as inspiration for choreography. This course requires prior modern dance training. Field trips may be required.

DANCE 335 Modern Dance V

Units: 1

Hours: 54 hours LAB

Course Family: Modern Dance Technique

Prerequisite: DANCE 334 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course furthers the concepts and technique used in DANCE 334 and places the emphasis on explorations of percussive, sustained, and suspended movement qualities with time and effort changes. Utilizing exact repetition, gradual changes, and the human breath, exercises to maintain technique are developed for strength training and imagery as well as inspiration for choreography. This course requires prior modern dance training. Field trips may be required.

DANCE 340 Ballroom Dance

Units: 1

Hours: 54 hours LAB

Course Family: Ballroom Dance Technique

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course provides a foundation for ballroom dance that includes the etiquette, vocabulary, history, and traditions of ballroom dance. The emphasis is on thoughtful partner work, basic ballroom technique, and basic dances. This course is for students with little or no experience in ballroom dance.

DANCE 341 Ballroom Dance II

Units: 1

Hours: 54 hours LAB

Course Family: Ballroom Dance Technique

Prerequisite: None.

Enrollment Limitation: DANCE 340 with a grade of "C" or better or by audition.

Transferable: CSU; UC

General Education: Local GE L7A

This course furthers the study of ballroom dance technique begun in DANCE 340 and emphasizes swift execution and new partnering concepts. It includes more complex movement and introduces the potential for improvisation. It also refines the basic skills and builds on them to allow for a greater understanding of ballroom dance forms. This course is designed for students with some experience in ballroom dance.

DANCE 342 Ballroom Dance III: Club Dancing

Units: 1

Hours: 54 hours LAB

Course Family: Ballroom Dance Technique

Prerequisite: None.

Enrollment Limitation: DANCE 341 with a grade of "C" or better or by audition.

Transferable: CSU; UC

General Education: Local GE L7A

This course continues the foundation in alignment, etiquette, and ballroom dance styles begun in DANCE 341. It allows for more advanced study and builds confidence and ability in competitive forms of ballroom. The focus is on the execution of those dances known as Club Dances in the competitive ballroom field. These dances introduce showmanship and require more skill, better timing, and specific use of non-verbal communication. This course is designed for students with ballroom dance experience.

DANCE 343 Ballroom Dance IV: Latin

Units: 1

Hours: 54 hours LAB

Course Family: Ballroom Dance Technique

Prerequisite: None.

Enrollment Limitation: DANCE 341 with a grade of "C" or better or by audition.

Transferable: CSU; UC

General Education: Local GE L7A

This course continues the foundation in alignment, etiquette, and technique that was begun in DANCE 341. It allows for more advanced study specifically in Latin styles of dance. These dances introduce professional showmanship and fluent use of non-verbal communication with a focus on more complicated rhythms. This course is designed for those students with experience in ballroom dance technique.

DANCE 344 Ballroom Dance V: Swing

Units: 1

Hours: 54 hours LAB

Course Family: Ballroom Dance Technique

Prerequisite: None.

Enrollment Limitation: DANCE 342 with a grade of "C" or better or by audition.

Transferable: CSU; UC

General Education: Local GE L7A

This course maintains the foundation of alignment, etiquette, and basic steps begun in DANCE 342 and furthers the technique and execution with a new vocabulary of steps, and intricate partnering technique. It includes more strenuous movement and introduces the potential for tricks, turns, and more advanced dance sections that connect the basic steps. This course is designed for students with previous ballroom dance experience.

DANCE 345 Ballroom Dance VI: Tango

Units: 1

Hours: 54 hours LAB

Course Family: Ballroom Dance Technique

Prerequisite: None.

Enrollment Limitation: DANCE 343 with a grade of "C" or better or by audition.

Transferable: CSU; UC

General Education: Local GE L7A

This course builds on the foundation of DANCE 343. It challenges the student to master difficult forms of tango and requires a comprehensive effort to perfect quick-study, execution, balance, and technical ability. The emphasis is on complex steps that require keen timing, focus, showmanship and partnering skills. This course is designed for students with previous ballroom dance training.

DANCE 348 Ballroom Challenge: Competition and Performance

Units: 1

Hours: 54 hours LAB

Course Family: Ballroom Dance Technique

Prerequisite: None.

Enrollment Limitation: Audition

Transferable: CSU; UC

General Education: Local GE L7A

This course includes ballroom dance training for competition and performance. It focuses on refining performance levels of intermediate-to-advanced technique in at least three classic styles, such as Waltz, Foxtrot, and East Coast Swing, as well as three Latin styles. Topics include audition skills and learning new styles, new routines, and a competition within class for ranking. There are opportunities to compete against other groups and perform outside of class. Field trips may be required.

DANCE 351 Hip Hop I

Units: 1

Hours: 54 hours LAB

Course Family: Hip Hop Technique and Competition

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course includes basic Hip Hop moves with rapid level changes and strong floor work. Choreography is provided on a bare bones theme and developed according to individual style, ability, and personal interpretation. The history of this genre and the traditional competitive elements of Hip Hop dance are examined, as well as the role of dance in Hip Hop culture. An opportunity for exploration of Freestyle, Old Style, Poppin' and Lockin' is provided. This course is for students with little or no experience in Hip Hop dance technique. Field trips may be required.

DANCE 352 Hip Hop II

Units: 1

Hours: 54 hours LAB

Course Family: Hip Hop Technique and Competition

Prerequisite: DANCE 351 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course continues the technique and alignment begun in DANCE 351 on a more comprehensive level. It presents rigorous exercises for the development of strength and kinesthetic awareness. It also uses a vocabulary of intricate steps. The focus is on locomotor movements across the floor to improve smooth execution and center combinations to develop hard-hitting percussive styles. This course is for students with some previous Hip Hop dance training. Field trips may be required.

DANCE 353 Hip Hop III

Units: 1

Hours: 54 hours LAB

Course Family: Hip Hop Technique and Competition

Prerequisite: DANCE 352 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course builds on the styles and technique studied in DANCE 352. The emphasis is on exercises to encourage strength and agility, developing a dance persona, and combinations that introduce new styles and increase the degree of difficulty with floor work. This course is for dancers with previous Hip Hop dance training. Field trips may be required.

DANCE 354 Hip Hop IV

Units: 1

Hours: 54 hours LAB

Course Family: Hip Hop Technique and Competition

Prerequisite: DANCE 353 with a grade of "C" or better; or with instructor approval.

Enrollment Limitation: DANCE 353 with a grade of "C" or better or by audition.

Transferable: CSU; UC

General Education: Local GE L7A

This course builds on the foundation provided in DANCE 353. The focus is on improvisation, Freestyle, Cyphering, and battling. Musicality and storytelling are explored along with floor work, rapid tempos, and building upper body strength. This course is for students with previous Hip Hop dance experience. Field trips may be required.

DANCE 360 Tap Dance I

Units: 1

Hours: 54 hours LAB

Course Family: Tap Dance Technique

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course introduces the basic rhythms, walks, technique, alignment, and footwork of tap dance. It provides a foundation in the history, etiquette, and traditions of tap dance and uses tap dance vocabulary words to focus on step and riff names, their origins and meaning. This course is for students with little or no tap dance training. Field trips may be required.

DANCE 361 Tap Dance II

Units: 1

Hours: 54 hours LAB

Course Family: Tap Dance Technique

Prerequisite: DANCE 360 with a grade of "C" or better; or by instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course offers an opportunity to continue the study of tap dance with more complex rhythms, new vocabulary, and varied methods of counting. It furthers the basic technique begun in DANCE 360 and instills tap rhythms, walks, alignment for balance, counts, and footwork. This course is for students with some previous tap dance training. Field trips may be required.

DANCE 362 Tap Dance III

Units: 1

Hours: 54 hours LAB

Course Family: Tap Dance Technique

Prerequisite: DANCE 361 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course builds on technique studied in DANCE 361 and includes new vocabulary and steps that refine the ability for quick heel or toe balances as well as new exercises for progress in speed and intricacy of taps. Clarity of sounds and timing will be emphasized. This course requires previous experience in tap dance technique. Field trips may be required.

DANCE 363 Tap Dance IV

Units: 1

Hours: 54 hours LAB

Course Family: Tap Dance Technique

Prerequisite: DANCE 362 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course continues the study of tap dance technique provided in DANCE 362. It furthers instruction with more sounds to each step and introduces the concepts of origin for tap dance. The emphasis is on Irish-based tap and the relaxation of the upper body during performance. This course is designed for students with a background in tap dance technique. Field trips may be required.

DANCE 364 Tap Dance V

Units: 1

Hours: 54 hours LAB

Course Family: Tap Dance Technique

Prerequisite: DANCE 363 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course combines the elements of tap dance begun in DANCE 363 with the foundation of Shuffle Stride or rhythm tap dance styles of the Harlem Renaissance. The taps sounds are completed very close or into the ground. Along with theatrical jumps, turns, and isolations, steps from an African American Vaudeville dance heritage are included. This course requires previous tap dance training. Field trips may be required.

DANCE 377 Musical Theatre Dance I

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Course Family: Musical Theatre Dance

Prerequisite: DANCE 310, 320, 330, 340, or 360 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course provides an opportunity to explore dance for musical theatre and builds on the basic technique covered in DANCE 310, 320, 330, 340, or 360. This course begins with a mock audition and relies upon many basic dance styles in order to provide preparation for dancing in theatrical productions. Choreographed routines and production numbers are utilized, along with monologues, audition technique, vocabulary, and guides for singing while dancing. The emphasis is on authentic era dance styles, basic partnering, and using dance to shape and define a character. This course is designed for students with some previous dance experience. Field trips may be required.

DANCE 390 Contemporary Dance I

Units: 1

Hours: 54 hours LAB

Course Family: Contemporary Dance Technique

Prerequisite: DANCE 310, 320, or 330 with a grade of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course builds upon the technique covered in DANCE 310, 320, and 330. Abilities drawn from jazz, ballet, and modern dance are required to pursue this new integrated style. Dancers select and merge three dance techniques and incorporate the vocabulary of gestural movement and non-verbal communication. Development of smooth transitions and learning to use dance steps and elements to communicate an emotional state or story line. This course is intended for students with a knowledge of ballet, modern, and jazz dance technique. Field trips may be required.

DANCE 401 Pre-Pointe and Conditioning

Units: 1

Hours: 54 hours LAB

Course Family: Foundations of Dance

Prerequisite: DANCE 321, 322, 323, and 324 with grades of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course covers the technique and conditioning for dancing on pointe and combined with DANCE 322, 323, 324, or 325 builds the strength needed for pointe work. The emphasis is on ensuring that the strength and structure of the body is appropriate for pointe work. The course can be taken on flat to increase balance, strength, and alignment for ballet. It is designed for serious students of ballet with previous and on-going ballet training.

DANCE 403 Choreographic Studies

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Course Family: Foundations of Dance

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course allows for the study of choreography from an artistic, historical, and personal perspective and encourages students of choreography to mature by providing deeper source materials and less predictable solutions. The emphasis is on imagination and exploration that may uncover inner layers of untapped movement and gesture. It includes the study of selected influential choreographers and their work. This course is for students with previous dance training. Field trips may be required.

DANCE 406 Introduction to Improvisation

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Course Family: Foundations of Dance

Prerequisite: DANCE 312, 320, and 330 with grades of "C" or better; or with instructor approval.

Transferable: CSU; UC

General Education: Local GE L7A

This course builds on the technique covered in DANCE 312, 320, and 330. It introduces strategies for achieving improvisation without self-auditing and utilizes concepts for initiating the impulse to move in any dance style. Dancers work through menus and pre-planned improvisational springboards towards the complete freedom of dancing in a way that is not preconceived. Confidence is developed through repetition, encouragement, facing the emotional risk, and finding a sense of joy by dancing in the moment. This course is designed for students with a background in dance. Field trips may be required.

DANCE 415 Dance Production: Rehearsal and Backstage Organization

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Dance Composition and Production

Prerequisite: None.

Enrollment Limitation: Audition

Transferable: CSU; UC

General Education: Local GE L7A

This course provides an opportunity to perform with a focus on the rehearsal period and the importance of backstage organization. It includes lecture, choreography, rehearsal and performance, with an emphasis on production technique and nomenclature for dance. Production technique is presented through a study of the theatre areas and the choreographic necessity they present. Production problems are studied for multiple solutions and organizational requirements for safe rehearsals and performances are explored. Field trips may be required.

DANCE 416 Dance Production: Choreography and Costumes

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Dance Composition and Production

Prerequisite: None.

Enrollment Limitation: Audition.

Transferable: CSU; UC

General Education: Local GE L7A

This course provides an opportunity to perform with an emphasis on production technique for dance. Choreography for production and costuming for the choreography are covered as well as how to communicate choreographic ideas and costuming goals. Technique is presented through historical study and choreographic necessity. Production problems in choreography are analyzed for multiple solutions, and safe rehearsals, and performances. Field trips may be required.

DANCE 417 Dance Production: Studio and Stage

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Dance Composition and Production

Prerequisite: None.

Enrollment Limitation: Audition

Transferable: CSU; UC

General Education: Local GE L7A

This course is a lecture-demo and production group and is designed for dancers with performance proficiency in several styles of dance. There is an emphasis on public contact with several different performance space configurations and settings. It provides for an opportunity to choreograph, perform, and convert a dance production into three or more different kinds of space configurations. Field trips may be required.

DANCE 430 Jazz Dance Performance Group

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Dance Performance Group

Prerequisite: None.

Enrollment Limitation: Audition

Transferable: CSU; UC

General Education: Local GE L7A

This course is a lecture-demo and performance group and is designed for dancers with performance proficiency in several styles of dance. There is an emphasis on public contact, community outreach, dance demonstrations, and a concert performance. The history of jazz dance is covered and ethnic styles are compared. An opportunity to choreograph is offered as well. Field trips may be required.

DANCE 431 Performance Group: SunDance Project

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Dance Performance Group

Prerequisite: None.

Enrollment Limitation: By audition. Student must be able to do a double pirouette right and left, kick at least 90 degrees, exhibit floor-work proficiency, glissade assembl landing in a proper position, and demonstrate proficiency in at least two styles of dance.

Transferable: CSU; UC

General Education: Local GE L7A

This course provides an opportunity for performing in a variety of dance styles in a theatre setting. It presents performance experience as a situational learning experience in a non-competitive venue. This course facilitates an understanding of how to perform by using both improvised and choreographed material. The focus is on commitment to performance training for presentational dance and includes dance anatomy, basic injury prevention, planning for success, and how to handle errors made on stage as they happen. Topics include strict focus, professional attitudes, and theatre etiquette. This course is designed for students with considerable backgrounds in more than one genre of dance including classical and cultural dance technique.

DANCE 432 Dance Performance: Contemporary Dance Alliance

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Dance Performance Group

Prerequisite: None.

Enrollment Limitation: Audition

Transferable: CSU; UC

General Education: Local GE L7A

This course provides technique and performance opportunities in contemporary dance. It emphasizes public performance using the strategies, rules, and language of contemporary dance. Small group works are developed using subtext, gestural movements, abstract story lines, and movement for movement's sake. Creating complex contemporary dance steps and building short dance pieces to be performed in several public venues develops better performance abilities . Individual portfolios are included and field trips may be required.

DANCE 433 Performance Group: ARCH Dance Company

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Course Family: Dance Performance Group

Prerequisite: None.

Enrollment Limitation: Audition

Transferable: CSU; UC

General Education: Local GE L7A

This course provides performance opportunities based on "classic" short stories, fables, and myths. The emphasis is on communicating the ideas and sentiments of well-known stories through dance. How characters might move to convey who they are and what they want is covered, as well as making transition choices to build the story line through dance. Individual portfolios are stressed and field trips may be required.

DANCE 495 Independent Studies in Dance

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

General Education: Local GE L7A

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

DANCE 498 Work Experience in Dance

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Dance Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7A; Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of dance. 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 Title 5 required forms which document the student's progress and hours spent at an approved worksite, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

DANCE 499 Experimental Offering in Dance

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

General Education: Local GE L7A

This is the experimental courses description.

Deaf Culture and American Sign Language Studies

Overview

Academic coursework based on a Deaf-centered framework that encourages students to embrace an empowered collaboration with Deaf people.

Main core studies: Present Deaf Studies subjects based on Deafhood framework such as American Sign Language, Sign Linguistics, Deaf Education, Literature, Deaf psychology, Mental Health and Wellness, and Interpreting and maintain current trends in Deaf Culture & ASL Studies; expand further much needed subjects and fields in Deaf Studies, such as culture, sociology, anthropology, history, arts, business, politics, and media doing so through a Deaf-centered lens.

Degrees and Certificates Offered

A.A. in Deaf Culture and American Sign Language Studies

A.A. in Language Studies

Deaf Culture and American Sign Language Studies Certificate

Dean: Rocio Owens

Phone: (916) 484-8653

Email: askhb-LAC@arc.losrios.edu

Associate Degrees

A.A. in Deaf Culture and American Sign Language Studies

This degree provides academic coursework based on a Deaf-centered framework that encourages students to embrace an empowered collaboration with Deaf people. It provides an introductory overview of the Deaf community and American Sign Language in a cultural context, with the psychosocial dynamics of people working in the Deaf community. It also emphasizes the development of skills related to paraprofessional services, in an individual or group setting, in an educational or social services agency which serves Deaf clients.

Degree Requirements

Course Code	Course Title	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 320	Fingerspelling, Classifiers and Numbers	0.5 -1
DEAF 351	Introduction to American Deaf Culture	3
DEAF 352	Introduction to American Deaf Education	3
DEAF 355	Audism and Inequality of the Deaf	3
DEAF 370	Linguistics of American Sign Language	3
A minimum of 3 units from the following:		3
DEAF 318	American Sign Language V (4)	
DEAF 380	American Sign Language Literature (3)	
Total Units:		**31.5 - 32**

The Deaf Culture and American Sign Language Studies Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- compare and contrast characteristics that impact a Deaf person's life in the following areas: the world of work, education, family, language, and social development.
- demonstrate ability to carry on American Sign Language conversation consistent with the ability of a 4th semester second language learner with a Deaf individual or groups of Deaf people.
- apply entry-level positions working with the Deaf community.
- demonstrate characteristics related to personal growth and adjustment in various populations within and outside of the Deaf community.
- apply skills in working with various Deaf participants within and outside of the Deaf community.
- demonstrate skills in working with school-age Deaf children in an educational setting.
- compare and differentiate the Deaf individual to individuals of diverse populations when comparing human development.
- demonstrate appropriate cultural interaction within the Deaf community.
- demonstrate ability to communicate respectfully in a Deaf-culture setting.

Career Information

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 clients.

A.A. in Language Studies

This degree provides an area of emphasis in communication skills in both English and foreign languages. It is intended for students wishing to develop communication skills for the workplace. Students who work closely with their counselors can use this area of emphasis to prepare for majoring at a four-year college in world languages as well as any other majors which require proficiency in one or more world languages.

Degree Requirements

Course Code	Course Title	Units
A minimum of 6 units from the following:		6
COMM C1000	Introduction to Public Speaking (3)	
COMM 331	Group Discussion (3)	
COMM 361	The Communication Experience (3)	
COMM 362	Mediated Communication (3)	
ENGL C1000	Academic Reading and Writing (3)	
or ENGL C1000H	Academic Reading and Writing - Honors (3)	
ENGL C1001	Critical Thinking and Writing (3)	
or ENGL C1001H	Critical Thinking and Writing - Honors (3)	
ENGL C1003	Critical Thinking and Writing through Literature (4)	
ENGL 301	College Composition and Literature (3)	
or ENGL 481	Honors College Composition and Literature (3)	
A minimum of 12 units from the following:		12
All 12 units from this list must be completed in a single language.		
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 318	American Sign Language V (4)	
GERM 401	Elementary German I (4)	
GERM 402	Elementary German II (4)	
GERM 411	Intermediate German (4)	
GERM 412	Intermediate German (4)	

Course Code	Course Title	Units
ITAL 401	Elementary Italian (4)	
ITAL 402	Elementary Italian (4)	
ITAL 411	Intermediate Italian (4)	
ITAL 412	Intermediate Italian (4)	
RUSS 401	Elementary Russian (4)	
RUSS 402	Elementary Russian (4)	
RUSS 411	Intermediate Russian (4)	
RUSS 412	Intermediate Russian (4)	
RUSS 413	Russian for Heritage Speakers I (4)	
RUSS 415	Russian for Heritage Speakers II (4)	
SPAN 401	Elementary Spanish I (4)	
SPAN 402	Elementary Spanish II (4)	
SPAN 411	Intermediate Spanish (4)	
SPAN 412	Intermediate Spanish (4)	
SPAN 413	Spanish for Native Speakers I (4)	
SPAN 415	Spanish for Native Speakers II (4)	
Total Units:		**18**

The Language Studies Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- write expository and argumentative papers.
- synthesize ideas and develop conclusions.
- examine the connection between culture and communication.
- engage in conversation and written correspondence in a language other than English.

Career Information

This degree prepares students for immediate employment in language-focused fields by developing practical communication skills and cultural competence. Career paths include healthcare interpreting, emergency and public services, social services, bilingual education support, government agencies, international business, tourism, translation and interpreting, and other community-based professions. Some positions may require additional training or certification.

Certificate of Achievement

Deaf Culture and American Sign Language Studies Certificate

This certificate provides academic coursework based on a Deaf-centered framework that encourages students to embrace an empowered collaboration with Deaf people. It provides an introductory overview of the Deaf community and American Sign Language in a cultural context, with the psychosocial dynamics of people working in the Deaf community. It also emphasizes the development of skills related to paraprofessional services, in an individual or group setting, in an educational or social services agency which serves Deaf clients.

Certificate Requirements

Course Code	Course Title	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 320	Fingerspelling, Classifiers and Numbers	0.5 -1
DEAF 351	Introduction to American Deaf Culture	3
DEAF 352	Introduction to American Deaf Education	3
DEAF 355	Audism and Inequality of the Deaf	3
DEAF 370	Linguistics of American Sign Language	3
A minimum of 3 units from the following:		3
DEAF 318	American Sign Language V (4)	
DEAF 380	American Sign Language Literature (3)	
Total Units:		**31.5 - 32**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- compare and contrast characteristics that impact a Deaf person's life in the following areas: the world of work, education, family, language, and social development.
- demonstrate ability to carry on American Sign Language conversation consistent with the ability of a 4th semester second language learner with a Deaf individual or groups of Deaf people.
- apply to entry-level positions working with the Deaf community.
- demonstrate characteristics related to personal growth and adjustment in various populations within and outside of the Deaf community.
- apply skills in working with various Deaf participants within and outside of the Deaf community.

- demonstrate skills in working with school-age Deaf children in an educational setting.
- compare and differentiate the Deaf individual to individuals of diverse populations when comparing human development.
- demonstrate appropriate cultural interaction within the Deaf community.
- demonstrate ability to communicate respectfully in a Deaf-culture setting.

Career Information

This certificate 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 clients.

Deaf Culture and American Sign Language Studies (DEAF) Courses

DEAF 310 American Sign Language I

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Advisory: Eligible for ENGRD 310 or ENGRD 312; OR ESLW 340.

Transferable: CSU; UC

General Education: Local GE L3

This is the first course in a series of five 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. It focuses 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 is equivalent to two years of high school ASL. This course is formerly known as SILA 305.

DEAF 312 American Sign Language II

Units: 4

Hours: 72 hours LEC

Prerequisite: DEAF 310 (formerly SILA 305) with a grade of "C" or better or two years of high school ASL.

Advisory: ENGL C1000 or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

This is the second in a series of five courses in American Sign Language (ASL). The emphasis is on further exposure to the Deaf community, cultural behaviors, and nonverbal communication. Topics include developing awareness and cultural sensitivity to Deaf values and norms such as using eye contact, interrupting or getting someone's attention, grammatical features such as adjective descriptors, differentiation between cardinal/ordinal numbers, contrastive structure, temporal aspect markers and temporal sequencing, narrative skills, applying principles of naming that are culturally appropriate, and discussions with peers to apply Deaf culture communication skills in a variety of realistic situations. It also covers the analysis of works of philosophical, historical, literary, and cultural importance. This course is formerly known as SILA 306.

DEAF 314 American Sign Language III

Units: 4

Hours: 72 hours LEC

Prerequisite: DEAF 312 (formerly SILA 306) with a grade of "C" or better.

Advisory: Eligible for ENGRD 310 or ENGRD 312; OR ESLW 340.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course is the third in a series of five 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. In addition, it provides an understanding of deaf cultural processes by identifying behaviors and norms through assigned activities. It also includes dialogues that involve asking, empathizing, negotiating and agreeing or disagreeing. It emphasizes non-speech communication. This course is formerly known as SILA 315.

DEAF 316 American Sign Language IV

Units: 4

Hours: 72 hours LEC

Prerequisite: DEAF 314 (formerly SILA 315) with a grade of "C" or better.

Advisory: Eligible for ENGRD 310 or ENGRD 312; or ESLW 340.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course is the fourth in a series of five 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 course is conducted entirely in non-speech communication. This course is formerly known as SILA 316.

DEAF 318 American Sign Language V

Units: 4

Hours: 72 hours LEC

Prerequisite: DEAF 316 with a grade of "C" or better

Advisory: Eligible for ENGRD 310 or ENGRD 312; OR ESLW 340.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This is the last course in a series of five courses in American Sign Language (ASL). It emphasizes effective communication with Deaf people, including expressive communication skills that include narrating unforgettable moments, telling about accidents, and storytelling. This course incorporates information and activities previously learned about Deaf culture into these narratives. It focuses on non-speech communication. This course is formerly known as SILA 318.

DEAF 320 Fingerspelling, Classifiers and Numbers

Units: 0.5 - 1

Hours: 27 - 54 hours LAB

Prerequisite: DEAF 310 with a grade of "C" or better

Transferable: CSU

This course provides hands-on experiences with fingerspelling, classifiers, and American Sign Language (ASL) numbers. Topics include expressive and receptive fingerspelling, classifiers, and ASL numbers techniques. This laboratory course enables ASL learners to develop, expand, and reinforce hands-on experiences with fingerspelling, classifiers, and ASL numbers skills while working independently, in small groups, and with media and recorded video clips in ASL that incorporate fingerspelling, classifiers and numbers. Coursework includes study topics integrated with expressive and receptive fingerspelling, classifiers, and ASL numbers techniques.

DEAF 351 Introduction to American Deaf Culture

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC 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. Topics include awareness of and sensitivity to the unique challenges of deafhood and how they influence personal-social and communication competencies of the Deaf person. This course is formerly known as SILA 330.

DEAF 352 Introduction to American Deaf Education

Units: 3

Hours: 54 hours LEC

Prerequisite: DEAF 351 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4

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. This course is formerly known as SILA 332.

DEAF 355 Audism and Inequality of the Deaf

Units: 3

Hours: 54 hours LEC

Prerequisite: DEAF 351 with a grade of "C" or better

Advisory: SOC 321; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course focuses on topics in the field of race and ethnicity in Deaf community. It provides theoretical background and contexts of audism and oppression. It also covers the contribution of minorities including Deaf people to the United States as well as the sociological reasons for the inequality of Deaf people in the United States.

DEAF 370 Linguistics of American Sign Language

Units: 3

Hours: 54 hours LEC

Prerequisite: DEAF 316 with a grade of "C" or better, or placement through the assessment process.

Transferable: CSU; UC

This course provides a foundation in American Sign Language (ASL) linguistics. Topics include theoretical knowledge and practical application of phonology, morphology, syntax, and sociolinguistics aspects of ASL usage. This course is formerly known as SILA 317.

DEAF 380 American Sign Language Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: DEAF 314 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

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 495 Independent Study

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

DEAF 499 Experimental Offering in Deaf Culture & ASL Studies

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Design & Engineering Technology

Overview

Note to Transfer Students

This program is intended to provide skills and experiences that will help students transition directly into the workforce after obtaining a certificate or a degree. Students who may later wish to transfer to a four-year college often find that the portfolio developed in this program, and experiences gained in the workplace, can be used to aid in the transfer process. However, the courses specific to this degree are generally not designed to meet a specific college transfer pathway. Should a student wish to pursue a plan to transfer, it is critical that they meet with an ARC counselor to select and plan the additional courses required for transfer to the specific four-year college or university in order to pursue a bachelor's degree. Colleges vary widely in terms of the required coursework. The courses that ARC requires for an associate's degree in this major are often different from the requirements needed for a bachelor's degree at a specific college. It is recommended that students keep a portfolio of all design/engineering technology coursework completed at ARC to present for evaluation by four-year college program advisors.

Degrees and Certificates Offered

A.A. in Design Technology

A.S. in Engineering Technology

A.S. in Mechatronics

Design Technology Certificate

Engineering Technology Certificate

Mechatronics Certificate

Basic Mechatronics Certificate

CADD Operator - Entry Level Certificate

Dean: Jon Wedding

Department Chair: Randy Schuster

Phone: (916) 484-8588

Email: MCT@arc.losrios.edu

Associate Degrees

A.A. in Design Technology

This degree emphasizes the knowledge and skills required for entry level success in the architectural, civil, and mechanical engineering professions. These include graphic standards and practices, technical analysis and communication, material sciences, and the design and critique processes. In addition, projects include environmental (sustainable) design, product economics, and legal considerations. Current computer technologies and various design software for three dimensional modeling and two dimensional drafting are used throughout the program. Graphic documentation and a portfolio of work are created for each course.

Degree Requirements

Course Code	Course Title	Units
DESGN 300	Introduction to Design Resources	3
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD)	3
DESGN 302	Technical Documentation with CADD	3
DESGN 310	Graphic Analysis and Documentation	3
DESGN 320	Three Dimensional Graphics and Design	3
DESGN 325	Architectural Modeling and Design	3
DESGN 328	Engineering Modeling and Design	3
DESGN 331	Machine Design	2
DESGN 340	Architecture and Construction	4
DESGN 351	Surveying For Architectural Design	2
DESGN 352	Land Planning For Architectural Design	2
DESGN 360	Commercial Engineering Design and Drafting	4
DESGN 361	Commercial MEP Design	2
Total Units:		**37**

The Design Technology Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- solve architectural and engineering technical problems by applying design and engineering process methodologies.
- apply the appropriate use of representational media, including study and presentation models (electronic and physical), freehand and conceptual drawing, technical documentation, and diagramming, to convey envisioned ideas at each stage of the design process.
- organize a set of documents for land planning and site development, commercial and residential buildings, and product assemblies that include material selections, cross-referencing, code review, checklists, and coordination.
- create design solutions that demonstrate knowledge and understanding of historical, cultural, human, aesthetic, environmental (sustainable) and social issues.
- communicate architectural and engineering design solutions effectively through individual and cooperative group efforts including speaking, writing, presentation, and the use of various design graphics and technical software.
- critique and analyze the success or failure of architectural and engineering design solutions developed through a formal design process.

Career Information

A student who has earned a degree in design technology is well prepared to enter the architecture or engineering field as a design technician. Design technicians are involved in all phases of the design process and duties may include the preparation of technical and presentation drawings, specifications, reports and cost estimates. Design technicians primarily work with architects, mechanical engineers, structural engineers and civil engineers.

A.S. in Engineering Technology

This degree emphasizes the knowledge and skills required for entry level success in the engineering professions. These include a basic preparation within the scientific fields including physics, mathematics, chemistry, and material sciences. These sciences are applied to technical analysis and graphic communication standards and practices. In addition, projects include environmental and sustainable design issues, product economics, and legal considerations. Current computer technologies and various analytical design and documentation software are emphasized throughout the program.

Degree Requirements

Course Code	Course Title	Units
CHEM 305	Introduction to Chemistry (5)	4 - 5
or CHEM 310	Chemical Calculations (4)	
DESGN 300	Introduction to Design Resources	3
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD)	3
DESGN 302	Technical Documentation with CADD	3
DESGN 310	Graphic Analysis and Documentation (3)	3
DESGN 328	Engineering Modeling and Design	3
DESGN 331	Machine Design	2
DESGN 340	Architecture and Construction (4)	4
or DESGN 360	Commercial Engineering Design and Drafting (4)	
DESGN 351	Surveying For Architectural Design (2)	2
DESGN 361	Commercial MEP Design	2
PHYS 310	Conceptual Physics (3)	3 - 4
or PHYS 350	General Physics (4)	
Total Units:		**32 - 34**

The Engineering Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- solve architectural and engineering technical problems by applying design and engineering process methodologies.
- apply the appropriate use of representational media, including study and presentation models (electronic and physical), freehand and conceptual drawing, technical documentation, and diagramming.
- organize a set of engineering product development documents and technical reports per industry standards.
- research and design for engineering products that demonstrate knowledge and understanding of historical, cultural, human, aesthetic, environmental (sustainable) and social issues.
- communicate engineering design solutions effectively through individual and cooperative group efforts including speaking, writing, presentation, and the use of various design graphics and technical software.
- critique and analyze the success or failure of architectural and engineering design solutions developed through a formal design process

Career Information

Upon completion of this degree program the engineering technician will be prepared to go directly into the employment market as a technical assistant to engineers, or other technical employment. For every engineer, several support technicians are required. Engineering technicians are needed in the fields of manufacturing, architecture, construction, materials testing, public utilities, and many other fields.

A.S. in Mechatronics

This degree provides training in a multi-disciplinary field focusing on industrial automation. Topics include electricity, electronics, industrial motor controls, programmable logic controllers, robotics, AC/DC drives, mechanical design, and manufacturing technologies.

Degree Requirements

Course Code	Course Title	Units
First Semester:		
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD)	3
ET 302	Principles of Electricity and Electronics	4
WELD 300	Introduction to Welding	3
Other Semesters:		
DESGN 302	Technical Documentation with CADD (3)	3
or ENGR 312	Engineering Graphics (3)	
ET 193	Introduction to Robotics and Sensors	4
ET 197	Introduction to Mechatronics	4
ET 253	Industrial Communication Systems Support	4
Total Units:		**25**

The Mechatronics Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- integrate the principles of mechanical, electronic, and electrical technologies into the design of mechatronic systems.
- evaluate mechanical and electrical solutions to technological problems.
- apply industry-appropriate design techniques to develop technical design documents from a conceptual design.
- design robotic and machine automation systems using mechatronic principles.
- evaluate welding projects in accordance with welding procedures and specifications.
- contrast DC, AC, brushless, servo, and stepper motor operation.
- create technical documentation/presentations of models from the mechanical engineering discipline in both technically correct and visually pleasing solid, orthographic, and section view formats.
- design programmable logic controller (PLC) programs demonstrating input/output capabilities.
- design programs for an operator interface terminal (OIT) demonstrating input/output capabilities.

Career Information

This degree prepares students for the following technical and supervisory career opportunities: industrial mechanical/electrical systems technician, food processing machine service technician, facilities systems technician, waste water systems technician, manufacturing coordinator, field service technician, and mechanical electrical machine systems installer.

Certificates of Achievement

Design Technology Certificate

This certificate emphasizes the knowledge and skills required for entry level success in the architectural, civil, and mechanical engineering professions. These include graphic standards and practices, technical analysis and communication, material sciences, and the design and critique processes. In addition, projects include environmental (sustainable) design, product economics, and legal considerations. Current computer technologies and various design software for three dimensional modeling and two dimensional drafting are used throughout the program. Graphic documentation and a portfolio of work are created for each course.

Certificate Requirements

Course Code	Course Title	Units
DESGN 300	Introduction to Design Resources	3
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD)	3
DESGN 302	Technical Documentation with CADD	3
DESGN 310	Graphic Analysis and Documentation	3
DESGN 320	Three Dimensional Graphics and Design	3
DESGN 325	Architectural Modeling and Design	3
DESGN 328	Engineering Modeling and Design	3
DESGN 331	Machine Design	2
DESGN 340	Architecture and Construction	4
DESGN 351	Surveying For Architectural Design	2
DESGN 352	Land Planning For Architectural Design	2
DESGN 360	Commercial Engineering Design and Drafting	4
DESGN 361	Commercial MEP Design	2
Total Units:		**37**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- solve architectural and engineering technical problems by applying design and engineering process methodologies.
- apply the appropriate use of representational media, including study and presentation models (electronic and physical), freehand and conceptual drawing, technical documentation, and diagramming, to convey envisioned ideas at each stage of the design process.
- organize a set of documents for land planning and site development, commercial and residential buildings, and product assemblies that include material selections, cross-referencing, code review, checklists, and coordination.
- create design solutions that demonstrate knowledge and understanding of historical, cultural, human, aesthetic, environmental (sustainable) and social issues.
- communicate architectural and engineering design solutions effectively through individual and cooperative group efforts including speaking, writing, presentation, and the use of various design graphics and technical software.
- critique and analyze the success or failure of architectural and engineering design solutions developed through a formal design process.

Career Information

A student who has earned a certificate in design technology is well prepared to enter the architecture or engineering field as a design technician. Design technicians are involved in all phases of the design process and duties may include the preparation of technical and presentation drawings, specifications, reports and cost estimates. Design technicians primarily work with architects, mechanical engineers, structural engineers and civil engineers.

Engineering Technology Certificate

This certificate emphasizes the knowledge and skills required for entry level success in the engineering professions. These include a basic preparation within the scientific fields including physics, mathematics, chemistry, and material sciences. These sciences are applied to technical analysis and graphic communication standards and practices. In addition, projects include environmental and sustainable design issues, product economics, and legal considerations. Current computer technologies and various analytical design and documentation software are emphasized throughout the program.

Certificate Requirements

Course Code	Course Title	Units
CHEM 305	Introduction to Chemistry (5)	4 - 5
or CHEM 310	Chemical Calculations (4)	
DESGN 300	Introduction to Design Resources	3
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD)	3
DESGN 302	Technical Documentation with CADD	3
DESGN 310	Graphic Analysis and Documentation (3)	3
DESGN 328	Engineering Modeling and Design	3
DESGN 331	Machine Design	2
DESGN 340	Architecture and Construction (4)	4
or DESGN 360	Commercial Engineering Design and Drafting (4)	
DESGN 351	Surveying For Architectural Design (2)	2
DESGN 361	Commercial MEP Design	2
PHYS 310	Conceptual Physics (3)	3 - 4
or PHYS 350	General Physics (4)	
Total Units:		**32 - 34**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- solve architectural and engineering technical problems by applying design and engineering process methodologies.
- apply the appropriate use of representational media, including study and presentation models (electronic and physical), freehand and conceptual drawing, technical documentation, and diagramming.
- organize a set of engineering product development documents and technical reports per industry standards.
- research and design for engineering products that demonstrate knowledge and understanding of historical, cultural, human, aesthetic, environmental (sustainable) and social issues.
- communicate engineering design solutions effectively through individual and cooperative group efforts including speaking, writing, presentation, and the use of various design graphics and technical software.
- critique and analyze the success or failure of architectural and engineering design solutions developed through a formal design process

Career Information

Upon completion of this certificate program the engineering technician will be prepared to go directly into the employment market as a technical assistant to engineers, or other technical employment. For every engineer, several support technicians are required. Engineering technicians are needed in the fields of manufacturing, architecture, construction, materials testing, public utilities, and many other fields.

Mechatronics Certificate

This certificate provides training in a multi-disciplinary field focusing on industrial automation. Topics include electricity, electronics, industrial motor controls, programmable logic controllers, robotics, AC/DC drives, mechanical design, and manufacturing technologies.

Certificate Requirements

Course Code	Course Title	Units
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD)	3
ET 302	Principles of Electricity and Electronics	4
WELD 300	Introduction to Welding	3
ET 197	Introduction to Mechatronics	4
DESGN 302	Technical Documentation with CADD (3)	3
or ENGR 312	Engineering Graphics (3)	
ET 193	Introduction to Robotics and Sensors	4
ET 253	Industrial Communication Systems Support	4

Course Code	Course Title	Units
Total Units:		**25**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- integrate the principles of mechanical, electronic, and electrical technologies into the design of mechatronic systems.
- evaluate mechanical and electrical solutions to technological problems.
- apply industry-appropriate design techniques to develop technical design documents from a conceptual design.
- design robotic and machine automation systems using mechatronic principles.
- evaluate welding projects in accordance with welding procedures and specifications.
- contrast DC, AC, brushless, servo, and stepper motor operation.
- create technical documentation/presentations of models from the mechanical engineering discipline in both technically correct and visually pleasing solid, orthographic, and section view formats.
- design programmable logic controller (PLC) programs demonstrating input/output capabilities.
- design programs for an operator interface terminal (OIT) demonstrating input/output capabilities.

Career Information

This certificate prepares students for the following career opportunities: industrial mechanical/electrical systems technician, food processing machine service technician, facilities systems technician, waste water systems technician, manufacturing coordinator, field service technician, and mechanical electrical machine systems installer.

Certificates

Basic Mechatronics Certificate

This certificate provides introductory training in the multidisciplinary field of mechatronics, which combines mechanical and electronic technologies. Topics include introductory courses in electronics, programmable logic controllers, basic CAD design, and welding.

Certificate Requirements

Course Code	Course Title	Units
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD)	3
ET 197	Introduction to Mechatronics	4
ET 302	Principles of Electricity and Electronics	4
WELD 300	Introduction to Welding	3
Total Units:		**14**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- integrate the basic principles of mechanical, electronic, and electrical technologies into the design of mechatronic systems.
- evaluate mechanical and electrical solutions to technological problems.
- apply basic design techniques to develop technical design documents.
- design basic robotic and machine automation systems using mechatronic principles.
- create and evaluate welding projects in accordance with welding procedures and specifications.

Career Information

This certificate prepares students for internships and entry-level employment with local industries using mechatronic and design principles.

CADD Operator - Entry Level Certificate

This certificate emphasizes the software knowledge and technical skills required for entry level success as a Computer Aided Drafting and Design (CADD) Drafter Intern in the architectural, civil, and mechanical engineering professions. Further courses in the Design and Engineering Technology program are often required from students without prior industry experience in order to be fully qualified for most full time computer aided drafting and design positions.

Certificate Requirements

Course Code	Course Title	Units
DESGN 300	Introduction to Design Resources	3
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD) (3)	3 - 4

Course Code	Course Title	Units
or [DESGN 303	Introduction to Computer Aided Drafting And Design - Drafting Tools (2)	
and DESGN 304]	Introduction To Applied Computer Aided Drafting and Design - Drafting Standards (2)	
DESGN 302	Technical Documentation with CADD	3
DESGN 320	Three Dimensional Graphics and Design	3
Total Units:		**12 - 13**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- modify and revise redlined drawings in support of a senior drafter or an engineer.
- perform common file management and document preparation activities in support of timely project submittals.
- create drawings for new projects based on representative samples or templates.
- assist in the preparation of specifications, cost estimates, and sheet sets.

Career Information

A student who has earned a CADD Operator - Entry Level certificate is well prepared to enter the architecture or engineering fields as a CADD Drafter Intern. CADD Drafter interns are involved in all phases of the design process and duties may include the preparation of technical and visualization drawings, specifications, reports and cost estimates. CADD Drafter Interns generally work in support of Senior Drafters, Designers, Architects, and Engineers.

Design Technology (DESGN) Courses

DESGN 270 Intro to Applied Drone Technology

Units: 0.5

Hours: 8 hours LEC; 4 hours LAB

Prerequisite: None.

Drones are widely used as data collection tools (image, thermal, laser imaging, detection, and ranging) in many industries and disciplines. This course provides an introduction to the different applications of drones in design disciplines as well as an introduction to the rules governing the use of the drones. The class includes both lecture and hands-on activities.

DESGN 271 Survey of Applied Drone Tech in Design

Units: 0.5

Hours: 6 hours LEC; 10 hours LAB

Prerequisite: DESGN 270 with a grade of "C" or better

Drones and their sensors can capture many different types of data including image, thermal, laser imaging, detection, and ranging. This course provides an opportunity to learn about the applications for different types of drones and the specific sensors that are currently applied in the architectural, civil, and mechanical design disciplines.

DESGN 295 Independent Studies in Design Technology

Units: 1 - 3

Prerequisite: None.

DESGN 298 Work Experience in Design Technology

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Design Technology Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the architectural and engineering field. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

DESGN 299 Experimental Offering in Design Technology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

DESGN 300 Introduction to Design Resources

Units: 3

Hours: 48 hours LEC; 18 hours LAB

Prerequisite: None.

Transferable: CSU

This course is a survey of the resources used in the architectural and engineering professions. It introduces construction materials and their properties and characteristics affecting construction processes. Environmental and sustainable materials, sustainable building certification, and rating systems are also covered.

DESGN 301 Introduction to Computer Aided Drafting and Design (CADD)

Units: 3

Hours: 34 hours LEC; 63 hours LAB

Prerequisite: None.

Transferable: CSU; UC (UC credit limitations: DESGN 301, DESGN 303 and DESGN 304 combined: maximum credit, 1 course; DESGN 301, DESGN 303, DESGN 304, DESGN 320 and DESGN 328 combined: maximum credit, 8 semester units)

This course covers the fundamentals of AutoCAD, a design and drafting software used to create a wide variety of technical drawings. It includes engineering layout, site and landscape drawings, as well as drawings used in architecture and interior design such as floor and space plans, elevations, and details. This course is not open to students who have completed DESGN 100.

DESGN 302 Technical Documentation with CADD

Units: 3

Hours: 36 hours LEC; 72 hours LAB

Prerequisite: DESGN 301 with a grade of "C" or better

Advisory: ENGWR 101 and ENGRD 116 with a grade of "C" or better; OR ESL 325 with a grade of "C" or better.

Transferable: CSU

This course emphasizes using various electronic graphical media software to create standardized technical documentation for architectural, civil, and mechanical applications. A wide range of methods are used to create, print and save 2D, 3D, orthographic, and isometric presentations in a wide variety of output formats using AutoCAD as the primary tool. Section views for mechanical and architectural applications are covered, as well as a variety of drawing and file management topics. This course was formerly DESGN 102.

DESGN 303 Introduction to Computer Aided Drafting And Design - Drafting Tools

Units: 2

Hours: 22 hours LEC; 44 hours LAB

Prerequisite: None.

Transferable: CSU; UC (UC credit limitations: DESGN 301, DESGN 303 and DESGN 304 combined: maximum credit, 1 course; DESGN 301, DESGN 303, DESGN 304, DESGN 320 and DESGN 328 combined: maximum credit, 8 semester units)

This course covers the fundamentals of AutoCAD, a design and drafting software used to create a wide variety of technical drawings. It includes work with drawing, editing, and presentation tools that are used to create shapes and geometry as part of the design and drafting process. This course plus DESGN 304 is equivalent to DESGN 301. This course is not open to students who have completed DESGN 100 or DESGN 301.

DESGN 304 Introduction To Applied Computer Aided Drafting and Design - Drafting Standards

Units: 2

Hours: 22 hours LEC; 44 hours LAB

Prerequisite: DESGN 303 with a grade of "C" or better

Transferable: CSU; UC (UC credit limitations: DESGN 301, DESGN 303 and DESGN 304 combined: maximum credit, 1 course; DESGN 301, DESGN 303, DESGN 304, DESGN 320 and DESGN 328 combined: maximum credit, 8 semester units)

This course covers the use of fundamentals tools of computer aided drafting and design as they are applied to creating industry standard drawings for the architectural, civil, and mechanical disciplines. It includes the use of layer, style, page, and plot managers. In addition, this course covers a variety of object and sheet organization, file management, and presentation tools. Students will further develop their drawing and editing skills that were learned in DESGN 303. This course is not open to students who have completed DESGN 100 or DESGN 301.

DESGN 310 Graphic Analysis and Documentation

Units: 3

Hours: 36 hours LEC; 72 hours LAB

Prerequisite: DESGN 301 with a grade of "C" or better

Transferable: CSU

This course covers the application of orthographic projection and geometric construction principles as they are used to solve technical problems. Additionally, graphical analysis is used to determine design characteristics such as strength, deflection, cost, volume, and green technology ratings. These analyses may utilize design characteristics such as forces, moments, ratios, and areas as well as distance, bearing, and grade. These characteristics are then used in the solution of engineering and architectural problems.

DESGN 320 Three Dimensional Graphics and Design

Units: 3

Hours: 36 hours LEC; 72 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitation: DESGN 301, DESGN 303, DESGN 304, DESGN 320 and DESGN 328 combined: maximum credit, 8 semester units)

This course is an introduction to the fundamentals of the design process for architecture and engineering. It includes the application of programming, environmental analysis, sustainable (green) considerations, code guidelines and restrictions, market analysis, and economic considerations on design projects. Technical design solutions with perspective graphics, mass modeling prototyping, and virtual concept computer modeling are also covered. The course also includes individual and team studio situations, presentations, and formal critiques.

DESGN 325 Architectural Modeling and Design

Units: 3

Hours: 34 hours LEC; 63 hours LAB

Prerequisite: DESGN 301 and 303 with grades of "C" or better

Transferable: CSU; UC

This course covers the concepts and applications of three dimensional graphic design using various visualization, modeling, and Building Information Modeling (BIM) programs, such as AutoCAD, SketchUp and Revit. Topics include the procedures and techniques for producing architectural models and associated technical documentation and presentation.

DESGN 328 Engineering Modeling and Design

Units: 3

Hours: 36 hours LEC; 72 hours LAB

Prerequisite: DESGN 301 with a grade of "C" or better

Advisory: DESGN 320; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitation: DESGN 301, DESGN 303, DESGN 304, DESGN 320 and DESGN 328 combined: maximum credit, 8 semester units)

This course covers the concepts and applications of three dimensional graphic design using various visualization, modeling, and Building Information Modeling (BIM) programs, such as AutoCAD, SketchUp, and Revit MEP. Topics include the procedures and techniques for producing surface models, solid models, and their associated technical documentation/ presentation components as well as their application to civil engineering, mechanical engineering and green technology. This course was formerly DESGN 308.

DESGN 331 Machine Design

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: DESGN 301, 302, 310, and 328 with grades of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course includes many common design and documentation activities for components and assemblies used in machines. Machine design commonly applies to products such as pumps, valves, power transmission devices, and motion control devices. This course also includes an introduction to production control and how that aspect of design integrates with the other design processes.

DESGN 340 Architecture and Construction

Units: 4

Hours: 48 hours LEC; 72 hours LAB

Prerequisite: DESGN 301, DESGN 302; AND either DESGN 300 or DESGN 320; AND either DESGN 325 or DESGN 328 with grades of "C" or better.

Transferable: CSU

This course is an introduction to the residential architectural design process. It covers the fundamentals of construction materials and methodology, basic code requirements, and the introduction of applied engineering concepts for light construction. It also includes the application of a predefined program, environmental analysis, sustainable design, building mass prototyping, and graphical technical documentation.

DESGN 351 Surveying For Architectural Design

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: DESGN 301 with a grade of "C" or better; AND either DESGN 325 or DESGN 328 or HORT 329 with grades of "C" or better.

Transferable: CSU

This course examines elementary surveying principles and basic civil design and drafting techniques. It covers the instruments, methods, and theories necessary for the measurement, documentation, and creation of architectural site plans using various CADD software packages.

DESGN 352 Land Planning For Architectural Design

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU

Students apply social justice data in an industry standard, collaborative, and project based manner to create land planning proposals. Typical proposal documents include site layouts, site models, profiles, cut / fill volumes, and regulatory compliance analysis. Proposals also incorporate environmental and sustainable design considerations.

DESGN 360 Commercial Engineering Design and Drafting

Units: 4

Hours: 48 hours LEC; 72 hours LAB

Prerequisite: DESGN 302; AND either DESGN 300 or DESGN 320; AND either DESGN 325 or DESGN 328 with grades of "C" or better.

Transferable: CSU

This course employs exercises simulating typical design and engineering problems in commercial structures, commercial building systems, and environmental systems in buildings. Topics include the fundamentals of construction materials and methodology, and basic code requirements. Also included is an introduction of applied engineering concepts for heavy construction. Activities include review and application of program definitions, environmental analysis, sustainable design applications, and mass prototyping. Design solutions are presented by various concept drawings, physical modeling, and electronic media applications.

DESGN 361 Commercial MEP Design

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: DESGN 300, 301, 302, 310, and 328 with grades of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course introduces commercial building system design and analysis through the study of Mechanical Electrical Plumbing (MEP) system applications. The topics include the application of basic Building Information Modeling (BIM) techniques and technical documentation to a variety of industrial and commercial building concept development projects. Plan, elevation, section and detail views are incorporated into a conceptual plan set. BIM tools are used to perform preliminary building performance analysis related to energy and water consumption.

DESGN 495 Independent Studies in Design Technology

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

DESGN 498 Work Experience in Design Technology

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Design Technology Department faculty to review specific certificate and degree work experience requirements.

Advisory: ENGL C1000, ENGL C1000H, or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the advanced manufacturing field or the architectural and engineering field. It is designed for students interested in work experience and/or internships in transfer-level occupational programs. Course content includes understanding the application of education to the workforce, completion of Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

DESGN 499 Experimental Offering in Design Technology

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Diesel/Clean Diesel Technology

Overview

American River College offers a wide variety of programs to appeal to a diverse group of students. Our Automotive Technology, Automotive Collision Technology, and Diesel/Clean Diesel Technology programs are a combination of classroom and hands-on shop experiences that prepare students for careers in all phases of the transportation industry. Students are trained in the use of workshop manuals in traditional and computerized formats, hand-held meters and scanners and special shop tools including power and hand tools.

Degrees and Certificates Offered

A.S. in Diesel Technology

Clean Diesel Hybrid Technology Certificate

Clean Diesel Industrial Certificate

Clean Diesel Management Systems Certificate

Clean Diesel Technology Certificate

Diesel Engine Technology Certificate

Diesel Technology Certificate

Light Duty Diesel Truck Certificate

Preventive Maintenance Certificate

Dean: Jon Wedding

Faculty Contact: Mikhail Drobot

Phone: (916) 484-8588

Email: MCT@arc.losrios.edu

Associate Degree

A.S. in Diesel Technology

This degree provides training in diesel technology. Topics include an introduction to diesel technology, diesel engine repair, basic hydraulic principles of diesel technology, diesel brake systems, and diesel power trains.

Degree Requirements

Course Code	Course Title	Units
DCDT 101	Diesel Preventive Maintenance	4
DCDT 110	Diesel Engine Repair	4
DCDT 120	Basic Hydraulic Principles of Diesel Technology	4
DCDT 130	Diesel Brake Systems	4
DCDT 140	Diesel Electrical Systems	4
DCDT 150	Diesel Power Trains	4
DCDT 162	Clean Diesel Software Support	4
Total Units:		**28**

The Diesel Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and properly utilize shop equipment and chemicals used in the diesel repair environment including hazardous waste disposal.
- apply proper techniques for complete engine removal, disassembly, cleaning, and reassembly of diesel engine.
- identify and explain brake system components, as well as application of proper technique for removal and repair of diesel brake system components.
- select and use proper test equipment to evaluate electrical systems, including voltmeters, ammeters, and ohmmeters.
- identify and explain diesel power train components and their functions to assist in diagnosis of drive train failure.

Career Information

This degree prepares the students as diesel technicians in the following areas of specialty: brakes, engine repair, hydraulics, and electrical.

Certificates of Achievement

Clean Diesel Hybrid Technology Certificate

This program covers hybrid-diesel components. Topics include heavy duty hybrid-diesel component application, diesel-hybrid motor generators, clean diesel software, and industrial software and systems.

Certificate Requirements

Course Code	Course Title	Units
DCDT 109	Hybrid Diesel Component Application	4
DCDT 113	Diesel Hybrid Motor Generators	4
DCDT 162	Clean Diesel Software Support	4
DCDT 163	Industrial Software and Systems	4
Total Units:		**16**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply basic principles of hybrid diesel component application to proper troubleshooting procedures.
- explain electronic control in diesel hybrid vehicles.
- apply procedural information, illustrations, diagnostic information, and wiring diagrams to Cummins INSITE and Eaton diesel systems.
- locate, download, and apply retrieved data to diesel tractor conditions.

Career Information

Various entry-level positions exist in the hybrid diesel repair industry, such as entry-level technician and hybrid service advisor.

Clean Diesel Industrial Certificate

This certificate prepares students for entry-level positions in the diesel technology industry. Topics include fabrication in the diesel technology industry.

Certificate Requirements

Course Code	Course Title	Units
DCDT 162	Clean Diesel Software Support	4
DCDT 163	Industrial Software and Systems	4
DCDT 180	Industrial Fabrication I	4
DCDT 181	Industrial Fabrication II	4
DCDT 191	Speed and Skill Development	3
DCDT 280	Professionalism in the Industry	3
DCDT 281	Diesel Shop Operations	4
Total Units:		**26**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply safety precautions while working in a fabrication environment.
- describe the basic steps in the fabrication process.
- show how to sheet and .120 aluminum welding with metal inert gas (MIG) and tungsten inert gas (TIG).
- outline basic frame fabrication techniques.
- explain popular uses of different metals.

Career Information

Entry level positions in the diesel fabrication, suspension, and frame repair industry. Additional career opportunities are likely as the fabrication industry continues to grow.

Clean Diesel Management Systems Certificate

This program covers hybrid diesel technology. Topics include hybrid diesel power trains, hybrid diesel high voltage systems, clean diesel software support, and industrial software systems.

Certificate Requirements

Course Code	Course Title	Units
DCDT 107	Hybrid Diesel Power Trains	4
DCDT 108	Hybrid Diesel High Voltage Systems	4
DCDT 162	Clean Diesel Software Support	4
DCDT 163	Industrial Software and Systems	4
Total Units:		**16**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe and explain power flow of hybrid diesel power trains.
- diagnose and repair high voltage cables, connectors, and components.
- locate, download, and apply retrieved information to diesel tractor conditions.
- communicate technical information about Cummins INSITE and Eaton diesel systems.

Career Information

Various entry-level positions exist in the hybrid diesel repair industry, such as entry-level technician and hybrid diagnostic technician.

Clean Diesel Technology Certificate

This program covers the diesel engine systems. Topics include biodiesel fuel and fuel systems, clean diesel technology, and clean diesel software support.

Certificate Requirements

Course Code	Course Title	Units
DCDT 102	Biodiesel Fuel and Fuel Systems	4
DCDT 103	Clean Diesel Systems	4
DCDT 104	Clean Diesel Rebuild, Retrofit, Repower, Retire	4
DCDT 110	Diesel Engine Repair	4
DCDT 112	Clean Diesel Retrofit	4
DCDT 162	Clean Diesel Software Support	4
Total Units:		**24**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- access requirements for converting fossil fuel to biodiesel vehicles.
- apply basic principles to the modern diesel engine.
- apply technical information for repowering, rebuilding, and replacing diesel engine components.
- locate, download, and print information specific to diesel tractor manufacturers.
- apply manufacturer specifications for diesel engine retrofit.

Career Information

Various entry level positions exist in the diesel repair industry, such as entry level technician, hydraulic technician, and heavy equipment service advisor.

Diesel Engine Technology Certificate

This certificate is designed for students seeking employment in the diesel industry specializing in diesel engine repair.

Certificate Requirements

Course Code	Course Title	Units
DCDT 100	Diesel Technology Basics	4
DCDT 101	Diesel Preventive Maintenance	4
DCDT 110	Diesel Engine Repair	4
DCDT 111	Clean Natural Gas Engine Repair	4
DCDT 162	Clean Diesel Software Support	4
Total Units:		**20**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- comply with safety and environmental regulations and standards required in the diesel repair environment.
- explain and identify natural gas diesel engines, including the proper cleaning, assembly and disassembly.
- demonstrate correct welding techniques for diesel application.
- utilize safety precautions that apply to diagnose and repair electrical/electronic components.
- locate, download, and print information specific to diesel tractor manufacturers and apply it to the diesel tractor conditions.

Career Information

The diesel industry is growing and is in need of highly trained/skilled technicians that can step into the workforce.

Diesel Technology Certificate

This certificate provides training in diesel technology. Topics include diesel brakes, hydraulics, electrical systems, and power trains.

Certificate Requirements

Course Code	Course Title	Units
DCDT 101	Diesel Preventive Maintenance	4
DCDT 110	Diesel Engine Repair	4
DCDT 120	Basic Hydraulic Principles of Diesel Technology	4
DCDT 130	Diesel Brake Systems	4
DCDT 140	Diesel Electrical Systems	4
DCDT 150	Diesel Power Trains	4
Total Units:		**24**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply established procedures in the diesel repair industry.
- inspect and maintain various diesel engine systems.
- diagnose and repair diesel engine systems.

Career Information

Various entry level positions exist in the diesel repair industry, such as entry level technician.

Light Duty Diesel Truck Certificate

This certificate prepares students for entry-level positions in the diesel technology industry. Topics include theory and operation of light duty diesel engines, computer controlled injection, and emission control systems.

Certificate Requirements

Course Code	Course Title	Units
DCDT 162	Clean Diesel Software Support	4
DCDT 163	Industrial Software and Systems	4
DCDT 200	Light Duty Diesel/Green Diesel Technology	4
DCDT 201	Advanced Light Duty Diesel/Green Diesel Technology	4
DCDT 280	Professionalism in the Industry	3
DCDT 281	Diesel Shop Operations	4
Total Units:		**23**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe the basic operations of diesel fueled vehicles.
- perform basic diesel engine turbo charger diagnostic procedures.
- test diesel engine emissions and emission control systems.
- apply procedural information, illustrations, diagnostic information, and wiring diagrams to diesel tractors.
- analyze and evaluate the advantages and disadvantages of working in dealerships, independent shops, and fleet shops.

Career Information

Entry level positions in light duty diesel technology, agriculture, and construction industry. Additional career opportunities are likely as the light duty diesel industry continues to grow.

Preventive Maintenance Certificate

This certificate prepares students for entry-level positions in the diesel technology industry. The topics include safety and environmental regulations and standards, as well as the ability to identify various diesel engine applications.

Certificate Requirements

Course Code	Course Title	Units
DCDT 100	Diesel Technology Basics	4
DCDT 101	Diesel Preventive Maintenance	4
DCDT 110	Diesel Engine Repair	4
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- comply with safety and environmental regulations and standards
- explain the operation of diesel engine components and systems
- identify various diesel engine applications
- demonstrate complete engine reassembly
- apply basic state and federal regulations including Occupational Safety and Health Association (OSHA) and the Environmental Protection Agency (EPA)
- apply basic principles of preventive maintenance to diesel repair

Career Information

Entry level positions in the diesel repair industry.

Diesel/Clean Diesel Technology (DCDT) Courses

DCDT 100 Diesel Technology Basics

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

This course introduces diesel technology. Topics include shop safety, hazardous waste handling and disposal, and engine components and their function.

DCDT 101 Diesel Preventive Maintenance

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course presents theoretical and practical training for entry-level diesel technicians. It covers the basic diesel diagnosis and service procedures used in diesel shops. Projects performed in a diesel shop environment provide hands-on experience with industry shop tools. Topics include shop service operations that meet the diesel industry standards, safety, electrical, and other general diesel procedures.

DCDT 102 Biodiesel Fuel and Fuel Systems

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers the chemistry, production, and impact of biodiesel technology. It also covers how to convert vehicle fuel systems to biodiesel and how this process affects warranties.

DCDT 103 Clean Diesel Systems

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course provides a complete overview of the clean diesel engine system. Topics include fuel injection systems and diesel electronic control systems.

DCDT 104 Clean Diesel Rebuild, Retrofit, Repower, Retire

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers clean diesel rebuilding, repowering, retrofitting, and retiring of equipment decisions. Topics include inspection, rebuilding, replacement, and retirement of diesel systems and components.

DCDT 107 Hybrid Diesel Power Trains

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers diesel hybrid powertrains found in current hybrid technology. Topics include basic diesel hybrid powertrains, hybrid power modes, and power electronic carriers.

DCDT 108 Hybrid Diesel High Voltage Systems

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers high voltage power systems on diesel hybrid powered vehicles. Topics include high voltage main component identification and inspection, inspection of high voltage cables, testing, re-use, and end-of-service decisions.

DCDT 109 Hybrid Diesel Component Application

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers testing and replacement of diesel hybrid components. Topics include electronic shifting theory and diesel hybrid component application.

DCDT 110 Diesel Engine Repair

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers the principles, operation, and diagnosis of diesel engines. Topics include basic engine operation and construction, parts identification and location, engine disassembly procedures, engine diagnosis, engine repair and rebuilding procedures, and engine reassembly procedures.

DCDT 111 Clean Natural Gas Engine Repair

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course introduces clean natural gas engine repair. Topics include engine application and principles of engine operation, disassembly and reassembly of engine components and systems, and various engine systems as they relate to clean natural gas engines.

DCDT 112 Clean Diesel Retrofit

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers the diesel engine retrofit needs for older diesel engines. Topics include troubleshooting, fault codes, welding, and diesel particulate filter systems.

DCDT 113 Diesel Hybrid Motor Generators

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers diesel hybrid motor/generators found in current hybrid technologies. Topics include basic diesel hybrid motor/generators, hybrid power modes, and power electronic components.

DCDT 120 Basic Hydraulic Principles of Diesel Technology

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course introduces basic hydraulic principles and functions of the diesel engine. Topics include hydraulic fundamentals and principles, functions of hydraulic fluids, directional and flow control valves, welding, and machine hydraulic overview.

DCDT 130 Diesel Brake Systems

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers the theory, design, adjustment, and repair or overhaul of diesel brake systems and components. Topics include the proper operation of power and hand devices used in the servicing of diesel brake systems and components.

DCDT 131 Diesel Suspensions

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course is an introduction to advanced principles and service of diesel suspension and steering systems. Topics include alignment of equipment, alignment procedures, and the diagnosis and repair of diesel suspension components.

DCDT 140 Diesel Electrical Systems

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers the principles, operation, and diagnosis of diesel electrical systems. Topics include fundamentals of electricity, electrical circuits, battery operation, fundamentals of magnetism, charging systems, starting systems, and electrical schematics.

DCDT 142 Diesel Emission Control Systems

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers the emission control system of the diesel engine. Topics include performing maintenance and emissions control within the emission limits.

DCDT 150 Diesel Power Trains

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers the diesel power train. Topics include inspection and adjustment of clutch linkage, flywheel, and replacement of clutch brakes.

DCDT 162 Clean Diesel Software Support

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

This course covers the skills needed to adequately retrieve and apply system information using Internet-based technical manuals specifically geared toward diesel tractor emission control systems.

DCDT 163 Industrial Software and Systems

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

This course covers the skills needed to adequately retrieve and apply Cummins INSITE and Eaton diesel engine information using Internet-based technical manuals specifically geared toward diesel tractor emission control systems.

DCDT 180 Industrial Fabrication I

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers the various processes of welding in transportation and industrial repairs using metal inert gas (MIG) and tungsten inert gas (TIG). Topics include proper safety procedures pertaining to the fabrication of metallic and nonmetallic materials, metallic and nonmetallic fabrication techniques, and various metals and plastics used in fabrication.

DCDT 181 Industrial Fabrication II

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers fabrication which involves cutting, altering, and shaping steel or other materials through the use of different tools, techniques, and processes. Topics include hot-gas and airless fabrication techniques, vehicle frames in relation to fabrication, tack welding, and filler material.

DCDT 190 Applied Projects in Clean Diesel Technology

Units: 2

Hours: 108 hours LAB

Prerequisite: DCDT 101, 110, 120, 130, 140, or 150 with a grade of "C" or better

This course provides opportunities to pursue advanced laboratory projects in all eight of the Automotive Service Excellence (ASE) for the Medium/Heavy-Duty Technician educational areas. Projects are selected by the Diesel Department.

DCDT 191 Speed and Skill Development

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers diesel component diagnosis and repair, including electrical, hydraulics, engine, fabrication, and other areas in preparation for competing in the state fair. This course may be taken up to four times for credit.

DCDT 200 Light Duty Diesel/Green Diesel Technology

Same As: AT 156

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course introduces the diagnosis and repair of light duty diesel vehicles and covers the theory and operation of light duty diesel engines and their fuel delivery systems. Topics include diesel engine characteristics, early mechanical fuel delivery systems, early cylinder head design, and early engine construction. It also covers how to prepare these engines for conversion to green technology, such as low sulfur fuel, biodiesel, and alternative fuels. This course along with DCDT 201 is applicable for the field technician seeking training for Automotive Service Excellence (ASE) A9 certification and preparation for green technologies.

DCDT 201 Advanced Light Duty Diesel/ Green Diesel Technology

Same As: AT 157

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course focuses on late model turbocharged light duty diesel vehicles operating on low sulfur, biodiesel, or alternative fuels. Topics include computer controlled injection, emission control systems, sensors, actuators, computer modules, exhaust gas recirculation (EGR) systems, particulate traps, selective catalytic reduction (SCR) systems, and lean oxides of nitrogen (NOx) traps. It covers diagnosis and repair of these systems using computer diagnostic equipment to meet state emission compliance. This course along with DCDT 200 is applicable for the field technician seeking training for Automotive Service Excellence (ASE) A9 certification and preparation for green technologies.

DCDT 280 Professionalism in the Industry

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: None.

This course introduces students to the professionalism and soft skills in the heavy duty clean diesel workplace. It provides an in-depth review of skills needed, ranging from applying for jobs, interviewing by panel, professional behavior, proper diesel technology phrases used in the workplace, how to communicate professionally with clients and other employees, and many other topics for the professional diesel technician work etiquette.

DCDT 281 Diesel Shop Operations

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

This course introduces operations of dealerships, independent shops, and fleet shops. It emphasizes the various influences that affect the technician's position with the various operations. Topics include service, sales, parts, and financial operations. Customer Satisfaction Index (CSI) is also discussed. Field trips to local shops may be required.

DCDT 298 Work Experience in Clean Diesel Technology

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Diesel Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the clean diesel technology field. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

DCDT 299 Experimental Offering in Diesel/Clean Diesel Technology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

DCDT 1000 ASE Diesel Engines (T2)

Units: 0.25

Hours: 4.5 hours LEC

Prerequisite: None.

This course prepares the Medium/Heavy Duty Truck Technician for taking the Automotive Service Excellence (ASE) Exam for the Diesel Engines T2 certification test.

DCDT 1001 ASE Drive Train (T3)

Units: 0.25

Hours: 4.5 hours LEC

Prerequisite: None.

This course prepares the Medium/Heavy Duty Truck Technician for taking the Automotive Service Excellence (ASE) Exam for the Drive Train T3 certification test.

DCDT 1002 ASE Brakes (T4)

Units: 0.25

Hours: 4.5 hours LEC

Prerequisite: None.

This course prepares the Medium/Heavy Duty Truck Technician for taking the Automotive Service Excellence (ASE) Exam for the Brakes T4 certification test.

DCDT 1003 ASE Suspension & Steering (T5)

Units: 0.25

Hours: 4.5 hours LEC

Prerequisite: None.

This course prepares the Medium/Heavy Duty Truck Technician for taking the Automotive Service Excellence (ASE) Exam for the Suspension and Steering T5 certification test.

DCDT 1004 ASE Electrical/Electronic Systems (T6)

Units: 0.25

Hours: 4.5 hours LEC

Prerequisite: None.

This course prepares the Medium/Heavy Duty Truck Technician for taking the Automotive Service Excellence (ASE) Exam for the Electrical/Electronic Systems T6 certification test.

DCDT 1005 ASE Industrial Refrigeration Systems (T7)

Units: 0.25

Hours: 4.5 hours LEC

Prerequisite: None.

This course prepares the Medium/Heavy Duty Truck Technician for taking the Automotive Service Excellence (ASE) Exam for the Industrial Refrigeration Systems T7 certification test.

DCDT 1006 ASE Preventive Maintenance Inspection (T8)

Units: 0.25

Hours: 4.5 hours LEC

Prerequisite: None.

This course prepares the Medium/Heavy Duty Truck Technician for taking the Automotive Service Excellence (ASE) Exam for the Preventive Maintenance T8 certification test.

DCDT 1007 ASE Light Vehicle Diesel Engines (A9)

Units: 0.25

Hours: 4.5 hours LEC

Prerequisite: None.

This course prepares the Medium/Heavy Duty Truck Technician for taking the Automotive Service Excellence (ASE) Exam for the Light Vehicle Diesel Engine A9 certification test.

Early Childhood Education

Overview

The earliest years of life are critical to building a foundation for lifelong learning. Young children need settings in which they can learn and explore in a nurturing and educationally rich environment, with teachers who understand how to foster their social, emotional and cognitive development. If you want to become an early childhood educator and create quality educational programs for young children, then welcome to the American River College (ARC) Early Childhood Education (ECE) Program.

How to Prepare for a Career in Early Childhood Education

Course offerings in ARC's ECE program align closely with California Community Care Licensing regulations and the requirements for the Child Development Permit granted by the California Commission on Teacher Credentialing. Courses also align with Child Development and Early Childhood Education majors offered by several California State Universities. The number of units/degrees required to work with young children vary by place of employment.

The Associate in Arts (AA) and Associate in Sciences for Transfer (AS-T) degrees at ARC combine a background in the science of child development and theories of learning, as well as hands-on experience working with children.

ARC ECE alumni are currently working throughout California in early childhood education settings including family child care, Head Start, state preschool programs, and public elementary schools. We are proud of our former students, many of whom return after completing their degrees to take classes for professional development or as preparation to become site supervisors and program directors.

What to Expect as a Student in the Early Childhood Education Program

The ECE department strives to bring innovative research-based, current information and knowledge to students. The department believes in the importance of promoting an anti-bias, engaging, intellectually challenging, and creative learning environment. Reflective practices and opportunities to practice critical thinking skills are woven into all coursework. Emphasis is placed on developing professional and ethical dispositions that foster positive relationships among children, families, and colleagues. Additionally, students are immersed

in practices inclusive of all children; including children who are culturally and linguistically diverse and children with disabilities.

After you complete the required course work for a certificate, you will need to petition for the certificate (https://apps.arc.losrios.edu/GraduationPetition).

Degrees and Certificates Offered

A.S.-T. in Early Childhood Education for Transfer

A.A. in Early Childhood Education

Associate Teacher Certificate

Children with Disabilities and Developmental Differences Specialist Certificate

Diversity, Equity, and Inclusion Specialist Certificate

Infant and Toddler Specialist Certificate

Master Teacher Certificate

Site Supervisor Certificate

Teacher Certificate

Dean: Narinedat Madramootoo

Department Chair: Alina Cervantes

Phone: (916) 484-8902

Email: askhb-healthed@arc.losrios.edu

Associate Degrees for Transfer

A.S.-T. in Early Childhood Education for Transfer

The Associate in Science degree in Early Childhood Education for Transfer (AS-T) provides students with a major that fulfills the general requirements of a California State University for transfer. Students with this degree will receive priority admission with junior status to certain California State University campuses. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Child Development, Child and Adolescent Development, Human Development, Family Studies, or similar fields at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, Â§66746):
â€¢ 60 semester or 90 quarter CSU-transferable units
â€¢ the California General Education Transfer Curriculum (Cal-GETC) pattern
â€¢ a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district
â€¢ obtain a minimum grade point average (GPA) of 2.0

ADTs also require that students must earn a â€œCâ€ or better in all courses required for the major or area of emphasis. A â€œPâ€ (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

The ECE courses required in this program are part of the CA Curriculum Alignment Project, Lower Division 8 coursework.

Degree Requirements

Course Code	Course Title	Units
ECE 300	Introduction to Principles and Practices in Early Childhood Education (3)	3
ECE 312	Child Development (3)	3
or PSYC 372	Child Development (3)	
ECE 314	The Child, the Family and the Community	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)	3
or NUTRI 320	Children's Health, Safety and Nutrition (3)	
ECE 430	Culture and Diversity in Early Childhood Education	3
Total Units:		**26**

The Associate in Science in Early Childhood Education for Transfer 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 California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- synthesize child development research with principles and practices for early childhood teaching to create early learning environments that are respectful, supportive, and challenging for all children, from infancy through adolescence.

- design inclusive, culturally and linguistically appropriate learning environments, based on child development, child observations, family information and knowledge of culturally diverse child rearing practices.
- incorporate strategies for building respectful, reciprocal family and community relationships in order to support families with their childrenâ€™s development and learning.
- assess children's learning through observation, documentation, and interpretation, using results to guide curriculum and teaching strategies.
- recommend developmentally appropriate and culturally relevant approaches to teaching and learning that include respectful, supportive relationships with children and families, and curriculum that support foundational skills and concepts in language, math, science, art, and social relationships.
- demonstrate practices that maintain standards of health, nutrition, and safety in group care early childhood settings.
- apply ethical standards of behavior accepted by the profession of early childhood education.

Career Information

This degree is designed to facilitate studentsâ€™ successful transfer to certain California State University (CSU) campuses that prepare them for advanced study in a variety of graduate programs, as well as a variety of careers such as teaching, Child Development Specialist, Program Directors, and Child Life Specialists. With a BA in ECE/Child Development, students are eligible for the Master Teacher and Site Supervisor levels of the CA Child Development Permit, using the Alternative Qualifications category.

Associate Degrees

A.A. in Early Childhood Education

This program provides a foundation for in-depth early childhood teacher preparation both through strong general education and through introductory studies 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

Course Code	Course Title	Units
ECE 300	Introduction to Principles and Practices in Early Childhood Education	3
ECE 312	Child Development (3)	3
or PSYC 372	Child Development (3)	
ECE 314	The Child, the Family and the Community	3
ECE 320	Curriculum and Interactions in Early Childhood Education	4
ECE 321	Advanced Practicum in Early Childhood Education	4
ECE 325	Positive Guidance Strategies with Young Children	3
ECE 326	Making Learning Visible Through Observation and Documentation	3
ECE 331	Care and Education of Infants and Toddlers	3
ECE 404	Children with Special Needs	3
ECE 415	Children's Health, Safety and Nutrition (3)	3
or NUTRI 320	Children's Health, Safety and Nutrition (3)	
ECE 430	Culture and Diversity in Early Childhood Education	3
A minimum of 3 units from the following:		3
ECE 330	Infant and Toddler Development (3)	
ECE 342	Constructive Math and Science in Early Childhood Education (3)	
ECE 343	Language and Literacy Development in Early Childhood (3)	
ECE 350	Introduction to Elementary Teaching with Field Experience (3)	
or ENGED 324	Introduction to Elementary Teaching with Field Experience (3)	
ECE 361	Introducing Young Children to Visual Arts (3)	
ECE 363	Music and Movement with Young Children (3)	
HEED 311	Pediatric First Aid, CPR AED (1.5)	
ECE 420	Administration I: Programs in Early Childhood Education (3)	
ECE 422	Administration II: Personnel and Leadership in Early Childhood Education (3)	
ECE 424	Adult Supervision: Mentoring in a Collaborative Learning Setting (2)	
Total Units:		**38**

The Early Childhood Education Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- synthesize child development research with principles and practices for early childhood teaching to create early learning environments that are respectful, supportive, and challenging for all children, from infancy through adolescence.
- design inclusive, culturally and linguistically appropriate learning environments, based on child development, child observations, family information, and knowledge of culturally diverse child rearing practices.
- incorporate strategies for building respectful, reciprocal family and community relationships in order to support families with their childrenâ€™s development and learning.
- assess children's learning through observation, documentation, and interpretation, using results to guide curriculum and teaching strategies.
- recommend developmentally appropriate and culturally relevant approaches to teaching and learning that include respectful, supportive relationships with children and families, and curriculum that supports foundational skills and concepts in language, math, science, art, and social relationships.
- demonstrate practices that maintain standards of health, nutrition, and safety in early childhood settings.
- apply ethical standards of behavior accepted by the profession of early childhood education.

Career Information

Upon completion of this degree, students possess the competencies required to work as a teacher in both private and public early care and education settings, serving infants through preschool-age children. Additionally, the individual can work as a teacher in before-and-after school programs, serving school-age children.

Certificates of Achievement

Associate Teacher Certificate

This certificate provides the educational coursework that serves as the core curriculum for the early childhood education field. Topics include an introduction to the profession, observation techniques, age-appropriate curriculum, and the child in the context of the family and community. Additionally, there is a focus on practicing these concepts in a supervised field/lab environment. With documented work experience, the student is also eligible to apply to the Commission on Teacher Credentialing for the Associate Teacher Child Development Permit.

Certificate Requirements

Course Code	Course Title	Units
ECE 300	Introduction to Principles and Practices in Early Childhood Education	3
ECE 312	Child Development (3)	3
or PSYC 372	Child Development (3)	
ECE 314	The Child, the Family and the Community	3
ECE 320	Curriculum and Interactions in Early Childhood Education	4
Total Units:		**13**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze the influence of family, community and culture on the child and identify local resource agencies that support families.
- plan and implement developmentally appropriate indoor and outdoor environments that support children's learning through play, exploration,and problem-solving.
- build on systematic observations of children's behavior to design, implement, and evaluate developmentally appropriate learning activities for young children.
- distinguish and apply positive guidance and conflict-resolution strategies that teach children self-discipline and effective, respectful social skills within a diverse group of peers.

Career Information

This certificate allows the student to work as a teacher in a private early care and education (Title 22) program, serving infants/toddlers, preschool-age children, and school-age children in before-and-after school programs. With the Associate Teacher Child Development Permit, an individual can work as an assistant or associate teacher in a publicly funded (Title 5) early care and education program.

Children with Disabilities and Developmental Differences Specialist Certificate

This certificate provides the educational coursework that serves as the core curriculum for the early childhood education field. Topics include an introduction to principles and practices in early childhood education, child development, the study of the child in the context of family and community, anti-bias curriculum, and working with children with disabilities. Additionally, this certificate includes a supervised field/lab experience in an inclusive classroom which can be used towards the experience requirement for a Child Development Permit issued by the California Commission on Teacher Credentialing. Upon completion of this certificate, the individual is eligible to be a teacher in a privately funded (Title 22) early care and education program.

Certificate Requirements

Course Code	Course Title	Units
ECE 300	Introduction to Principles and Practices in Early Childhood Education	3
ECE 312	Child Development (3)	3
or PSYC 372	Child Development (3)	
ECE 314	The Child, the Family and the Community	3
ECE 325	Positive Guidance Strategies with Young Children	3
ECE 401	Field Experience in Inclusive Settings	1
ECE 404	Children with Special Needs	3
ECE 430	Culture and Diversity in Early Childhood Education	3
Total Units:		**19**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate and apply knowledge of typical and atypical development to create early childhood classrooms that are inclusive, developmentally appropriate, respectful, and supportive for all children.
- design curriculum and programs for children with disabilities and developmental differences that build respectful, reciprocal family relationships and support optimal development and learning, both at home and in group care settings.
- incorporate reflective assessment strategies using observation, documentation, and interpretation in order to guide decisions about support for children with disabilities and developmental differences.

Career Information

Upon completion of this certificate, the student is eligible to be a teacher in a privately funded (Title 22) early care and education program. Additionally, the field experience can be used towards the experience requirement for a Child Development Permit issued by the California Commission on Teacher Credentialing, and meets the demand for early childhood educators who are trained and have experience working with children with disabilities.

Diversity, Equity, and Inclusion Specialist Certificate

This certificate provides the educational coursework that serves as the core curriculum for the early childhood education field. Topics include an introduction to principles and practices in early childhood education, child development, the study of the child in the context of family and community, and anti-bias curriculum. Additionally, it offers a specialization in diversity, equity, and inclusion within early childhood education settings, including the influences of stereotypes, bias, discrimination and inequitable systems as they relate to young childrenâ€™s learning, development, and educational access. Upon completion of this certificate, the individual is eligible to be a teacher in a privately funded (Title 22) early care and education program. With verified work experience and the completion of ECE 320, the student is also eligible to apply to the California Commission on Teacher Credentialing for an Associate Teacher Child Development Permit to work as an associate teacher in a publicly funded (Title 5) early care and education program.

Certificate Requirements

Course Code	Course Title	Units
ECE 300	Introduction to Principles and Practices in Early Childhood Education	3
ECE 312	Child Development (3)	3
or PSYC 372	Child Development (3)	
ECE 314	The Child, the Family and the Community	3
ECE 430	Culture and Diversity in Early Childhood Education	3
A minimum of 6 units from the following:		6
ECE 320	Curriculum and Interactions in Early Childhood Education (4)	
ECE 325	Positive Guidance Strategies with Young Children (3)	
ECE 404	Children with Special Needs (3)	
Total Units:		**18**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze the influence of family, community, and culture on the child's development and identify ways to respond to the diversity of cultures represented in an early childhood education setting.
- plan and implement a developmentally appropriate, anti-bias, and culturally supportive classroom environment that supports children's learning through play, exploration, and problem-solving.
- build on systematic observations of children's behavior and the classroom environment to design, implement, and evaluate developmentally appropriate, anti-bias, and culturally supportive learning activities for young children.
- describe and apply positive guidance and conflict-resolution strategies that teach children self-discipline and effective, respectful social skills within a diverse group of peers.
- analyze how one's own racial and cultural background, societal beliefs, and values impact their work with children and families.
- advocate for and promote culturally supportive, anti-bias education in the early childhood education community.
- identify and examine specific values, beliefs, and experiences of diverse populations by race, ethnicity, socioeconomic status, gender identity, sexual orientation, developmental ability, and age.
- identify the cognitive and emotional aspects of institutional discrimination and individual prejudice.

Career Information

Upon completion of this certificate, the student is eligible to be a teacher in a privately funded (Title 22) early care and education program. With verified work experience, and the completion of ECE 320, the student is also eligible to apply to the California Commission on Teacher Credentialing for an Associate Teacher Child Development Permit to work as an associate teacher in a publicly funded (Title 5) early care and education program. In addition, this certificate meets the demand for early childhood educators who are trained in teaching for equity and anti-bias education.

Infant and Toddler Specialist Certificate

This certificate provides the educational coursework that serves as the core curriculum for the early childhood education field. Topics include an introduction to the profession, observation techniques, and age-appropriate curriculum. Additionally, it focuses on infant and toddler development and the care of education of infants and toddlers in group settings.

Certificate Requirements

Course Code	Course Title	Units
ECE 300	Introduction to Principles and Practices in Early Childhood Education	3
ECE 312	Child Development (3)	3
or PSYC 372	Child Development (3)	
ECE 314	The Child, the Family and the Community	3
ECE 320	Curriculum and Interactions in Early Childhood Education	4
ECE 330	Infant and Toddler Development	3
ECE 331	Care and Education of Infants and Toddlers	3
ECE 415	Children's Health, Safety and Nutrition (3)	3
or NUTRI 320	Children's Health, Safety and Nutrition (3)	
ECE 430	Culture and Diversity in Early Childhood Education	3
Total Units:		**25**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate and apply knowledge of infant and toddler development to create infant and toddler programs that are anti-bias, relationship-based, respectful, and inclusive for children from the prenatal period through the first three years after birth.
- design infant and toddler programs that build respectful, reciprocal family relationships and support optimal infant and toddler development and learning, both at home and in group settings.
- incorporate reflective assessment strategies using observation, documentation, and interpretation in order to guide decisions about support for infant and toddler development and curriculum.
- design, implement, and evaluate culturally and developmentally appropriate curriculum and teaching plans that connect knowledge of academic content to meaningful learning environments for infants and toddlers.
- demonstrate practices in maintaining health and safety standards, and managing infectious disease in group settings.

- develop a continuing professional growth plan and advocate for public policy that supports infants, toddlers, their families, and the profession of early childhood education.

Career Information

Upon completion of this certificate, the student exceeds the minimum requirements to be a teacher of infants and toddlers in a privately funded (Title 22) early care and education program. In addition, with verified work experience, the student is eligible to apply to the California Commission on Teacher Credentialing for an Associate Teacher Permit to work as an associate teacher of infants and toddlers in a publicly funded (Title 5) early care and education program.

Master Teacher Certificate

This certificate builds on the teacher level certificate with additional coursework on adult supervision and children with special needs. It also includes six units of specialized study, allowing students to select a particular focus (i.e. curriculum or infant and toddler). Upon completion of this certificate, with verified work experience teaching children and supervising staff, the student is eligible to apply to the California Commission on Teacher Credentialing for a Master Teacher Child Development Permit to work as a lead teacher in a public (Title 5) early care and education program.

Certificate Requirements

Course Code	Course Title	Units
ECE 300	Introduction to Principles and Practices in Early Childhood Education	3
ECE 312	Child Development (3)	3
or PSYC 372	Child Development (3)	
ECE 314	The Child, the Family and the Community	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 404	Children with Special Needs	3
ECE 415	Children's Health, Safety and Nutrition (3)	3
or NUTRI 320	Children's Health, Safety and Nutrition (3)	
ECE 424	Adult Supervision: Mentoring in a Collaborative Learning Setting	2
ECE 430	Culture and Diversity in Early Childhood Education	3
A minimum of 16 units from the following:		16
At least one course from each of the following four areas listed in the ARC General Education requirements: (1) Natural Science or Mathematical Concepts & Quantitative Reasoning; (2) English Composition or Oral Communication & Critical Thinking; (3) Arts & Humanities; and (4) Social & Behavioral Sciences.		
Subtotal Units:		**47**

Curriculum Specialization

Course Code	Course Title	Units
A minimum of 6 units from the following:		6
ECE 342	Constructive Math and Science in Early Childhood Education (3)	
ECE 343	Language and Literacy Development in Early Childhood (3)	
ECE 361	Introducing Young Children to Visual Arts (3)	
ECE 363	Music and Movement with Young Children (3)	
Curriculum Specialization Units:		6
Total Units:		**53**

Infant and Toddler Specialization

Course Code	Course Title	Units
ECE 330	Infant and Toddler Development	3
ECE 331	Care and Education of Infants and Toddlers	3
Infant and Toddler Specialization Units:		6
Total Units:		**53**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply child development principles to lead a teaching team in the design and evaluation of environments that are developmentally appropriate, anti-bias, respectful, inclusive, and supportive for all children, from infancy through adolescence.
- design early childhood programs that build respectful, reciprocal, and culturally informed family relationships with the intention of engaging families in their children's development and learning.
- select and utilize reflective child, program, and staff assessment tools to lead a teaching team in developing curriculum and teaching strategies.

- demonstrate practices in maintaining health and safety standards and preventing infectious disease in group-care settings.
- evaluate and implement curriculum and teaching plans, as evidenced through documentation, that support foundational skills and concepts in language, math, science, the arts, and social relationships.
- apply principles and practices for curriculum and instruction that draw from current early childhood education and child development research.
- create a continuing professional growth plan and advocate for public policy that supports children and families, equity in education, and the profession of early childhood education.
- examine the role and development of early childhood education professionals as mentors and leaders in creating and leading anti-bias early childhood education programs.

Career Information

Upon completion of this certificate, the student meets the requirements for employment as a lead teacher in a privately funded (Title 22) early care and education program. In addition, with verified work experience teaching children and supervising staff, the student is eligible to apply to the California Commission on Teacher Credentialing for a Master Teacher Child Development Permit to work as a lead teacher in a publicly funded (Title 5) early care and education program.

Site Supervisor Certificate

Administration of early care and education programs is the main focus of this certificate. 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.

Certificate Requirements

Course Code	Course Title	Units
ECE 300	Introduction to Principles and Practices in Early Childhood Education	3
ECE 312	Child Development (3)	3
or PSYC 372	Child Development (3)	
ECE 314	The Child, the Family and the Community	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 331	Care and Education of Infants and Toddlers	3
ECE 415	Children's Health, Safety and Nutrition (3)	3
or NUTRI 320	Children's Health, Safety and Nutrition (3)	
ECE 420	Administration I: Programs in Early Childhood Education	3
ECE 422	Administration II: Personnel and Leadership in Early Childhood Education	3
ECE 424	Adult Supervision: Mentoring in a Collaborative Learning Setting	2
ECE 430	Culture and Diversity in Early Childhood Education	3
A minimum of 23 units from the following:		23
A minimum of 16 units must be completed that includes at least one course from each of the following four ARC General Education requirements: (1) Natural Science or Mathematical Concepts & Quantitative Reasoning; (2) English Composition or Oral Communication & Critical Thinking; (3) Arts & Humanities; and (4) Social & Behavioral Sciences The additional 7 units may also be courses that fulfill the General Education requirement OR any other ECE courses.		
Total Units:		**60**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- formulate an educational philosophy to guide the operation of an early childhood program.
- support culturally respectful interactions among children, parents, teachers and the community.
- evaluate curriculum for sound pedagogy, content, and breadth, including planning for the learning environment, the daily routines, and the individual needs of children.
- manage program planning, budgeting, governing boards, enrollment, and personnel in accordance with the regulations of Title 5 (California Education Code of Regulations) and Title 22 (California Social Services Code of Regulations).
- create procedures for implementing standards of health, nutrition, and safety in group care early childhood education settings.
- plan professional and personal growth and advocacy activities to support children, families and teachers.

Career Information

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.

Teacher Certificate

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.

Certificate Requirements

Course Code	Course Title	Units
ECE 300	Introduction to Principles and Practices in Early Childhood Education	3
ECE 312	Child Development (3)	3
or PSYC 372	Child Development (3)	
ECE 314	The Child, the Family and the Community	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 331	Care and Education of Infants and Toddlers	3
ECE 415	Children's Health, Safety and Nutrition (3)	3
or NUTRI 320	Children's Health, Safety and Nutrition (3)	
ECE 430	Culture and Diversity in Early Childhood Education	3
A minimum of 16 units from the following:		16
At least one course from each of the following four areas listed in the ARC General Education requirements: (1) Natural Science or Mathematical Concepts & Quantitative Reasoning; (2) English Composition or Oral Communication & Critical Thinking; (3) Arts & Humanities; and (4) Social & Behavioral Sciences.		
Total Units:		**45**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- confirm child development principles in creating environments that are healthy, respectful, supportive, and challenging for all children, from infancy through adolescence.
- design early childhood programs that build respectful, reciprocal family relationships with the intention of involving families in their childrenâ€™s development and learning.
- utilize systematic child assessment strategies in order to guide decisions about curriculum and teaching strategies.
- evaluate and implement curriculum and teaching plans, as evidenced through documentation, that support foundational skills and concepts in language, math, science, art, and social relationships.
- demonstrate practices in maintaining health/safety standards and preventing infectious disease in group-care settings.
- analyze principles of culturally relevant and anti-biased education in developing and analyzing early childhood curriculum and environments that respond to and respect diverse cultures and individual needs of children.
- develop a continuing professional growth plan and advocate for public policy that supports children, families and the profession of early childhood education.

Career Information

Upon completion of this certificate and with appropriate documented experience, the student meets the requirement for employment as a teacher in publicly funded early care and education programs, serving infants through preschool-age children. The student also meets the requirements to work as a teacher in a privately funded early care and education program, as well as in a before-and-after school-age program.

Early Childhood Education (ECE) Courses

ECE 294 Topics in Early Childhood Education

Units: 0.5 - 4

Hours: 9 - 54 hours LEC

Prerequisite: None.

This course provides opportunity to study current topics in early childhood education which are either not included in current offerings, or require emphasis beyond that offered in existing courses.

ECE 295 Independent Studies in Early Childhood Education

Units: 1 - 3

Prerequisite: None.

ECE 299 Experimental Offering in Early Childhood Education

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

ECE 300 Introduction to Principles and Practices in Early Childhood Education

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: ENGL C1000 and ESLW 340 with grades of "C" or better

Transferable: CSU

C-ID: C-ID ECE 120

This course is an introduction to the historical contexts and theoretical perspectives of developmentally appropriate practice in early care and education for children, from birth through age eight. It explores the typical roles and expectations of early childhood educators and identifies professional ethics, career pathways, and professional standards. The course introduces best practices for culturally affirming, developmentally appropriate learning environments, curriculum, and effective pedagogy for young children, including how play contributes to children's learning, growth, and development.

ECE 312 Child Development

Same As: PSYC 372

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitation: PSYC 372, 373, and ECE 312 combined: maximum credit, 1 course)

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

C-ID: C-ID CDEV 100

This course was formerly known as ECE 312 Child Development.

This course examines the progression of development in the physical, cognitive, linguistic, social, and emotional domains and identifies developmental milestones for children from conception through adolescence with attention to both typical as well as atypical development in each domain. The influences of culture, family, and the interaction of biological processes and environmental factors are studied. The course covers research methods and data collection approaches. Students will observe children, evaluate individual differences, and analyze characteristics of development at various stages according to developmental theories and research. The material in this course is designed as a foundation for early child care and education, teaching, and parenting. This course is not open to students who have completed PSYC 372.

ECE 314 The Child, the Family and the Community

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: ENGL C1000, ENGL C1000H, or ESLW 340 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

C-ID: C-ID CDEV 110

This course is an examination of the processes of socialization focusing on the interrelationship of family, school, and community. It examines the influence of multiple societal contexts, and explores the role of collaboration between family, community, and schools in supporting children's development, birth through adolescence. This course offers the opportunity to research and review the diverse community resources available to support the child and the family, and identify ways to advocate for children and families.

ECE 320 Curriculum and Interactions in Early Childhood Education

Units: 4

Hours: 36 hours LEC; 108 hours LAB

Prerequisite: ECE 300 AND ECE 312 or PSYC 372 with a grade of "C" or better.

Enrollment Limitation: Students must show proof of negative tuberculosis as well as immunizations for influenza, pertussis, measles and other immunizations required by the Los Rios Community College District prior to participating in the lab. If the TB test is positive, the test shall be followed by an X-ray of the lungs.

Transferable: CSU

C-ID: C-ID ECE 130

This course covers the topics of developmentally and culturally appropriate curriculum, anti-bias education, and environments for children from birth through age eight. This course applies knowledge of childrenâ€™s development, theories of learning and development, and examples from various models of developmentally and culturally appropriate practice and anti-bias education to plan environments and curriculum in all content areas to support childrenâ€™s development and learning integrated throughout indoor and outdoor settings. This course provides the opportunity for supervised experience working with children in an early childhood education setting, when placements are available.

ECE 321 Advanced Practicum in Early Childhood Education

Units: 4

Hours: 36 hours LEC; 108 hours LAB

Prerequisite: ECE 320 with a grade of "C" or better

Enrollment Limitation: Students must show proof of negative tuberculosis as well as immunizations for influenza, pertussis, measles and other immunizations required by the Los Rios Community College District prior to participating in the lab. If the TB test is positive, the test shall be followed by an X-ray of the lungs.

Transferable: CSU

C-ID: C-ID ECE 210

This advanced course is aimed at leadership development in developmentally appropriate early childhood program planning and teaching competencies under the supervision of ECE/CD faculty and other qualified early education professionals when placements are available. This course offers the opportunity for students to utilize practical experiences to make connections between theory and practice, develop professional behaviors, and build a comprehensive understanding of children and families. Reflective practice will be emphasized as student teachers design and evaluate approaches, strategies, and techniques that promote development and learning. Includes exploration of career pathways, professional development, and teacher responsibilities.

ECE 325 Positive Guidance Strategies with Young Children

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B

This course introduces strategies that teachers can use to help young children develop social and emotional skills. It examines theories, research, and practical applications for teachers in early childhood classrooms and parents at home. The course emphasizes how the adults' perceptions, experiences, and behavior influence child behaviors and also play a role in how adults respond to child behavior. Developmental stages of children's behavior, positive guidance techniques, and promotion of social-emotional skills are also covered.

ECE 326 Making Learning Visible Through Observation and Documentation

Units: 3

Hours: 54 hours LEC

Prerequisite: ECE 300 and 312 with grades of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

C-ID: C-ID ECE 200

This course links critical and reflective thinking to observation and assessment of young childrenâ€™s development. It 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.

ECE 330 Infant and Toddler Development

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B

This course provides a study of infants and toddlers from pre-conception to age three including physical, cognitive, language, social, and emotional growth and development. It applies theoretical frameworks to interpret behavior and interactions between heredity and environment. Additionally, it emphasizes the role of family and relationships in development.

ECE 331 Care and Education of Infants and Toddlers

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

This course analyzes the application of current theory and research to the care and education of infants and toddlers in group settings. It examines essential policies, principles, and practices that lead to quality care and developmentally appropriate curriculum for children from birth through 36 months of age.

ECE 342 Constructive Math and Science in Early Childhood Education

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

The course is an introduction to the constructivist approach to teaching math and science in early childhood education. The content and teaching strategies support the perspective that children construct knowledge through a dynamic, interactive process that facilitates their development of working theories related to math and science. Topics include an overview of the role of the teacher in developing appropriate experiences for children and a review of current standards and guidelines.

ECE 343 Language and Literacy Development in Early Childhood

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course prepares early childhood educators and others working with young children to recognize, understand, and support emergent language and literacy development. Developmentally appropriate language and literacy practices for young children (birth to age five) that build a strong foundation for learning to read and write in the primary grades will be covered. Topics include an overview of the educator's role in developing appropriate language and literacy experiences for young children, including ways to support children with delays/disabilities and children learning English as an additional language.

ECE 350 Introduction to Elementary Teaching with Field Experience

Same As: ENGED 324

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: In order to participate in the fieldwork portion of the course, students will need to complete any clearance processes required by the cooperating school's policies. These may include but are not limited to: fingerprinting, background checks, and vaccinations.

Advisory: ECE 312 or PSYC 372

Transferable: CSU; UC

General Education: Local GE L7B

C-ID: C-ID EDUC 200

This course provides students an opportunity to explore the field of elementary education, Kindergarten through grade 12 (K-12), through investigation of topics relevant to teaching diverse learners and fieldwork in an elementary school setting. Course content provides theoretical and foundational knowledge while fieldwork experiences allow students to integrate and apply course content.

This course is not open to students who have completed ENGED 324.

ECE 361 Introducing Young Children to Visual Arts

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

General Education: Local GE L3

This course prepares teachers in early childhood education with strategies for introducing young children to the media and tools of drawing, painting, sculpting, and other visual arts commonly used by young children to represent and understand the world around them. It focuses on observing children's natural ways of exploring each medium and learning strategies to facilitate and document children's emerging skills and relationship with each medium. It includes strategies for designing early childhood environments that promote children's exploration of visual arts.

ECE 363 Music and Movement with Young Children

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

General Education: Local GE L3

This course introduces students to theoretical principles and practical applications for integrating appropriate music and movement experiences in early childhood settings. It focuses on using music and movement as strategies for forming a classroom community of learners, and managing behaviors, routines, and transitions. This course also explores incorporating culturally diverse music and movement activities to support children's understanding and acceptance of differences.

ECE 401 Field Experience in Inclusive Settings

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Corequisite: ECE 404

Enrollment Limitation: Students must show evidence of a negative test or chest X-ray clearance for tuberculosis, as well as required immunizations, as required by the local school district or education agency. Students may be required to submit fingerprints for entry into a school setting.

Transferable: CSU

This course provides experience working in a school environment with children and youth who have disabilities. It is designed as a laboratory for those who have completed or are concurrently enrolled in ECE 404. The course covers skills for students who want to be general educators, special educators, school and social service providers, and/or other community workers who are essential in providing inclusive/ integrated environments for children and youth with disabilities. Students study environmental modifications in educational, agency, and community settings. Students also examine classroom modifications in curriculum, assessment, behavior management, and instructional methods. When taken after or concurrently with ECE 404, it is designed to meet the Special Education requirement for clear multiple and single subject credentials in California. Students must supply their own transportation to selected elementary school placements.

ECE 404 Children with Special Needs

Units: 3

Hours: 54 hours LEC

Prerequisite: ECE 312 or PSYC 372 with a grade of "C" or better

Enrollment Limitation: ECE 401

Transferable: CSU

This course is an overview of the developmental characteristics and learning differences of children with disabilities from birth through adolescence. It includes an overview of historical and societal influences, laws relating to children with disabilities, the identification and referral process, and current educational strategies, including assessment and curriculum design. Students examine community resources, advocacy, and the challenges faced by children with disabilities and their families. When taken concurrently with ECE 401, it is designed to meet the Special Education requirement for clear multiple- and single-subject credentials in California.

ECE 415 Children's Health, Safety and Nutrition

Same As: NUTRI 320

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

General Education: Local GE L7B

C-ID: C-ID ECE 220

This course examines basic nutrition, health, and safety needs of children from the prenatal period through school age. Topics include introduction to early childhood curriculum, laws, regulations, standards, policies, and procedures related to child health, safety, and nutrition. It emphasizes integrating and maintaining the optimal health, safety, and nutritional concepts in everyday planning and program development for all children, along with the importance of collaboration with families and health professionals. This course is not open to students who have taken NUTRI 320.

ECE 420 Administration I: Programs in Early Childhood Education

Units: 3

Hours: 54 hours LEC

Prerequisite: ECE 300 with a grade of "C" or better

Advisory: ECE 320 with a grade of "C" or better

Transferable: CSU

This course is an introduction to the administration of early childhood programs. It covers program types, budgets, management, regulations, laws, and the development and implementation of policies and procedures. It also examines various administrative tools, philosophies, and techniques needed to open, organize, and operate an early care and education program.

ECE 422 Administration II: Personnel and Leadership in Early Childhood Education

Units: 3

Hours: 54 hours LEC

Prerequisite: ECE 300 with a grade of "C" or better

Advisory: ECE 320 with a grade of "C" or better

Transferable: CSU

This course covers effective strategies for personnel management and leadership in early care and education settings. It includes legal and ethical responsibilities, supervision techniques, professional development, and reflective practices for a diverse and inclusive early childhood education program.

ECE 424 Adult Supervision: Mentoring in a Collaborative Learning Setting

Units: 2

Hours: 36 hours LEC

Prerequisite: ECE 314 with a grade of "C" or better

Advisory: ECE 320 with a grade of "C" or better

Transferable: CSU

This course covers principles and methods of supervising and mentoring teachers, volunteers, staff, and other adults in early childhood education settings. Emphasis is on the roles and development of early childhood professionals as mentors and teachers working collaboratively to guide a teaching team or individual within an early childhood education setting. This course satisfies the adult supervision course work requirement for the California Child Development Master Teacher Permit and Site Supervisor permit issued by the CA Commission on Teacher Credentialing.

ECE 430 Culture and Diversity in Early Childhood Education

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4

C-ID: C-ID ECE 230

This course examines the historical and current perspectives on diversity and inclusion and the impact of systemic societal influences on children's development, learning, and school experiences. Strategies for developmentally, culturally, and linguistically appropriate anti-bias curriculum will be explored as well as approaches to promote inclusive and anti-racist classroom communities. This course also includes self-reflection on the influence of teachers' own culture and life experiences on teaching and interactions with children and families.

ECE 495 Independent Studies in Early Childhood Education

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ECE 499 Experimental Offering in Early Childhood Education

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Economics

Overview

Economics is the study of how individuals and societies choose to use limited resources for production of goods and services and how they distribute them for current and future consumption. Economics is divided into two major areas: macroeconomics and microeconomics. Macroeconomics studies decision-making at the national level. Macroeconomics topics include gross domestic product, unemployment, inflation, and money and banking. Microeconomics studies decision-making at the individual household, business firm, and industry levels. Microeconomics topics include theories of the firm and consumer behaviors.

Courses offered by the Economics Department are designed to satisfy general education requirements at American River College, and they are transferable to the CSU system, the UC system, and other fine institutions of higher learning in the United States. Furthermore, these economics courses will provide students with essential tools to analyze contemporary national and international economic issues.

Degrees Offered

A.A.-T. in Economics

Division Dean: Kirsten Corbin

Department Chair: Brian Rosario

Phone: (916) 484-8361

Email: ARCBUSClerk@arc.losrios.edu

Associate Degree for Transfer

A.A.-T. in Economics

The Associate in Arts in Economics for Transfer (AA-T) provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Economics the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, §66746):
• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

All ADTs also require that students must earn a “C” or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
ECON C2002	Principles of Macroeconomics	3
ECON C2001	Principles of Microeconomics	3
ECON 310	Statistics for Business and Economics (3)	3 - 4
or PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
or STAT C1000	Introduction to Statistics (4)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
MATH 340	Calculus for Business and Economics (3)	3 - 5
or MATH 341	Calculus for Business and Economics (4)	
or MATH 400	Calculus I (5)	
List A:		
A minimum of 6 units from the following:		6
ACCT 301	Financial Accounting (4)	
ACCT 311	Managerial Accounting (4)	
BUS 300	Introduction to Business (3)	
BUS 310	Business Communications (3)	
CISC 310	Introduction to Computer Information Science (3)	
CISP 360	Introduction to Structured Programming (4)	
CISP 400	Object Oriented Programming with C++ (4)	
CISP 440	Discrete Structures for Computer Science (3)	
MATH 355	Calculus for Biology and Medicine I (4)	
MATH 375	Pre-Calculus (6)	
MATH 401	Calculus II (5)	
MATH 402	Calculus III (5)	
MATH 410	Introduction to Linear Algebra (3)	
Total Units:		**18 - 21**

The Associate in Arts 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- explain terms and concepts used in macroeconomics and microeconomics.
- evaluate models to explore consequences of economic policy proposals for households and businesses.
- evaluate economic models to explore the consequences of macroeconomic events and the probable consequences of macroeconomic policy proposals for the whole economy.
- solve problems requiring the application of economics, statistics, and mathematics.
- apply accounting and economic concepts and principles in making decisions about firm operations.

Economics (ECON) Courses

ECON C2002 Principles of Macroeconomics

Units: 3

Hours: 54 hours LEC

Prerequisite: Placement as determined by the college's multiple measures assessment process or completion of a course taught at or above the level of elementary algebra.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID ECON 202

This course was formerly known as ECON 302 Principles of Macroeconomics.

An introductory course using models of the domestic and international economy to understand national income, unemployment, inflation, economic growth, inequality, the financial system, and monetary, fiscal, and other economic policies. Problems and issues in these areas will be examined in their contemporary, historical, and geographical settings. This course was formerly known as ECON 302 and is not open to students who have successfully completed ECON 302.

ECON C2001 Principles of Microeconomics

Units: 3

Hours: 54 hours LEC

Prerequisite: Placement as determined by the college's multiple measures assessment process or completion of a course taught at or above the level of elementary algebra.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID ECON 201

This course was formerly known as ECON 304 Principles of Microeconomics.

An introductory course using microeconomic models to understand individual decisions by consumers and firms, market outcomes including market failure, elasticity, market structures, labor markets, inequality, and the impact of government policies. This course also covers marginal utility, costs of production, natural resource economics, resource allocation under conditions of competition, monopoly, oligopoly, and monopolistic competition. Problems and issues in these areas will be examined in their contemporary, historical, and geographical settings.

This course was formerly known as ECON 304 and is not open to students who have successfully completed ECON 304.

ECON 305 Introduction to Economies of Africa

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course introduces various topics on Africa's economies, such as indigenous economic systems, why Africa remains poor, pre- and post-colonial development strategies, the cold war factor, development finance, and new theories on development. Additionally, the politics of international development including China's expanding role in Africa are examined.

ECON 310 Statistics for Business and Economics

Units: 3

Hours: 54 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU; UC (UC credit limitation: ECON 310, PSYC 330, STAT C1000/300, STAT C1000H/480, and STAT 305 combined: maximum credit, 1 course)

General Education: Local GE L2; Cal-GETC Area 2

C-ID: C-ID MATH 110

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.

ECON 320 Concepts in Personal Finance

Same As: BUS 320

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B

This course covers how to analyze financial affairs for lifelong decision making. It examines the basics of financial planning, analysis, and decision making in areas of budgeting, taxes, credit, money management, insurance, investments, and retirement with an emphasis on principles to develop economic decision-making skills. This course is not open to students who have completed BUS 320.

ECON 495 Independent Studies in Economics

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College (ARC). They must also discuss the study with a professor from the Department of Economics at ARC in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ECON 499 Experimental Offering in Economics

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Education/Teaching

Overview

The Liberal Studies for Elementary Teachers major equips students with the foundational principles, practices, and skills necessary for teaching California's K–8 students. The curriculum emphasizes inclusive teaching practices that support all children, including those who are culturally and linguistically diverse, as well as students with special needs. Students also gain hands-on experience through fieldwork, working with or observing children at placement sites within the San Juan Unified School District.

This program is specifically designed for students intending to transfer to California State University, Sacramento's Liberal Studies Program with the goal of earning a bachelor's degree and multiple-subject teaching credential. Students planning to transfer are encouraged to meet with a counselor, as transfer requirements may vary by institution.

Degrees Offered

A.A. in Liberal Studies for Elementary Teacher Education

Dean: Rocio Owens

Phone: (916) 484-8101

Associate Degree

A.A. in Liberal Studies for Elementary Teacher Education

This is a multidisciplinary program designed for students planning to teach in the elementary school setting. The coursework provides students with foundational knowledge necessary for transfer to a teacher preparation program at a four year college or university and career success as educators, including courses covering pedagogy, professional knowledge, and discipline specific subject matter.

Further education at the university level will be necessary to fulfill the requirements for a teaching credential authorizing service in California public schools.

Required preparation for a bachelorâ€™s degree in this major can vary widely, so it is critical that students planning to transfer to a four year college or university meet with a counselor.

Degree Requirements

Course Code	Course Title	Units
BIOL C1000	Introduction to Biology with Lab	4
COMM 361	The Communication Experience (3)	3
or COMM C1000	Introduction to Public Speaking (3)	
ECE 312	Child Development (3)	3
or PSYC 372	Child Development (3)	
ECE 350	Introduction to Elementary Teaching with Field Experience (3)	3
or ENGED 324	Introduction to Elementary Teaching with Field Experience (3)	
ENGED 305	Structure of English	3
ENGED 320	Tutoring Elementary Students in Reading	3
ENGL C1000	Academic Reading and Writing (3)	3 - 4
or ENGL C1000H	Academic Reading and Writing - Honors (3)	
or ESLW 340	Advanced Composition (4)	
ENGL 301	College Composition and Literature (3)	3 - 4
or ENGL C1001	Critical Thinking and Writing (3)	
or ENGL C1003	Critical Thinking and Writing through Literature (4)	
or ENGL 481	Honors College Composition and Literature (3)	
or ENGL C1001H	Critical Thinking and Writing - Honors (3)	
or ESL 350	Critical Reading, Research and Writing Through Literature (4)	
GEOL 305	Earth Science (3)	4
and GEOL 306	Earth Science Laboratory (1)	
HIST 307	History of World Civilizations to 1500 (3)	3
or HIST 308	History of World Civilizations, 1500 to Present (3)	
HIST C1001	United States History to 1877 (3)	3
or HIST C1001H	United States History to 1877 - Honors (3)	
MATH 310	Mathematical Discovery	3
POLS C1000	American Government and Politics (3)	3
or POLS C1000H	American Government and Politics - Honors (3)	
Total Units:		**41 - 43**

The Liberal Studies for Elementary Teacher Education Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify the requirements and expectations of the teaching profession.
- integrate the attitudes, actions, dispositions, and behaviors required of a professional educator into a teaching skill set.
- apply knowledge of child development and learning theories to assess the characteristics of teaching practices and learning conditions.
- examine and apply culturally relevant, anti-bias, and equity-based teaching practices in educational settings.
- clarify and articulate professional goals as an educator.
- build a knowledge base in a number of general education topics necessary for teaching multiple subjects in the elementary school setting.
- apply analytical reading, writing, research, and critical thinking skills to gain knowledge and teach it to others.

Career Information

Students completing the program have the ability to work in before and after school programs and as instructional assistants in elementary and middle schools. Upon completing the required university level work, students can be employed as an elementary or middle school teacher.

Electrician Trainee Program

Overview

This program provides instruction in the installation, operation, and maintenance of residential and commercial electrical distribution systems. Topics include safety training, AC/DC electrical theory, metering, electronics, use of electrical codes, raceways, conductors, grounding, motors, transformers, fire alarm systems, fiber optics, and Heating, Ventilation, and Air Conditioning (HVAC) systems. It complies with state regulations to become an electrician trainee – see the California Department of Industrial Relations' electrician trainee guide (https://www.dir.ca.gov/dlse/ecu/Guide_for_Electricians_and_Trainees_2-07.pdf). Upon completion of the program, students may find employment in the following industry sectors: government, residential and commercial construction and maintenance, utilities, and facilities management.

Certificates Offered

Residential/Commercial Electrician Trainee Certificate

Dean: Jon Wedding

Department Chair: Ocean Tran

Phone: (916) 484-8588

Email: MCT@arc.losrios.edu

Certificate of Achievement

Residential/Commercial Electrician Trainee Certificate

This program provides instruction in the installation, operation, and maintenance of the electrical distribution systems in residential and commercial sites. Topics include safety training, AC/DC electrical theory, metering, electronics, use of electrical codes, raceways, conductors, grounding, motors, transformers, fire alarm systems, fiber optics, and Heating, Ventilation, and Air Conditioning (HVAC) systems. It complies with state regulations to become an electrician trainee.

Certificate Requirements

Course Code	Course Title	Units
ELTRN 110	Electrician Trainee I	4
ELTRN 111	Electrician Trainee II	4
ELTRN 120	Electrician Trainee III	4
ELTRN 121	Electrician Trainee IV	4
ELTRN 130	Electrician Trainee V	4
ELTRN 131	Electrician Trainee VI	4
ELTRN 180	Electrical Workers State Certification Preparation	4.5
Total Units:		**28.5**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply residential and commercial safety procedures on job-sites.
- analyze, interpret, and apply national, state, and local electrical codes.
- apply electrical mathematics in calculating AC/DC series, parallel, and combination circuits.
- identify different wiring methods for conductors, cables, and conduits.
- analyze functions of blueprints, specifications, schedules, addenda, and revisions in construction.
- describe the function, operation, and characteristics of a system and individual components of the system such as burglar alarms, fire alarms, information transport, HVAC, etc.

Career Information

Upon completion of the Residential/Commercial Electrician Trainee program, students may find employment in the following industry sectors: government, residential and commercial construction and maintenance, utilities, and facilities management.

Electrician Trainee (ELTRN) Courses

ELTRN 110 Electrician Trainee I

Units: 4

Hours: 63 hours LEC; 27 hours LAB

Prerequisite: None.

This course is an introduction to the Commercial/Residential Electrician Trainee Program. It includes safety procedures, Occupational Safety and Health Administration (OSHA) requirements, Environmental Protection Agency (EPA) requirements, basic rigging, basic electrical mathematics, Ohm's Law, Direct Current (DC) theory, and construction related CPR and First Aid. This course meets the State of California requirement to obtain an electrician trainee license. This course was previously known as ELECT 210.

ELTRN 110 Electrician Trainee I

Units: 4

Hours: 63 hours LEC; 27 hours LAB

Prerequisite: None.

This course is an introduction to the Commercial/Residential Electrician Trainee Program. It includes safety procedures, Occupational Safety and Health Administration (OSHA) requirements, Environmental Protection Agency (EPA) requirements, basic rigging, basic electrical mathematics, Ohm's Law, Direct Current (DC) theory, and construction related CPR and First Aid. This course meets the State of California requirement to obtain an electrician trainee license. This course was previously known as ELECT 210.

ELTRN 111 Electrician Trainee II

Units: 4

Hours: 63 hours LEC; 27 hours LAB

Prerequisite: ELTRN 110 with a grade of "C" or better

This course covers Alternating Current (AC) theory, including AC and Direct Current (DC) generation, phase, and circuit mathematical calculations. It also covers the use of meters in different applications of alternating current, and provides a basic introduction to electronics and application of the National Electrical Code (NEC) to jobsite electrical installations. This course meets the State of California requirement to obtain an electrician trainee license. This course was formerly known as ELECT 211.

ELTRN 120 Electrician Trainee III

Units: 4

Hours: 63 hours LEC; 27 hours LAB

Prerequisite: ELTRN 111 with a grade of "C" or better

This is the third course of the Commercial/Residential Electrician Trainee Program. Topics include conductors, cables, conduits, lighting systems, panelboard, switchboard, and overcurrent devices for residential and commercial installations. This course also covers reading blueprint drawings, making sketches, drawing architectural views, and identifying common blueprint scales and electrical symbols. This course as formerly known as ELECT 220.

ELTRN 121 Electrician Trainee IV

Units: 4

Hours: 63 hours LEC; 27 hours LAB

Prerequisite: ELTRN 111 with a grade of "C" or better

This is the fourth course required for the Commercial/Residential Electrician Trainee Program. Topics include electrical grounding systems and lightning protection systems. It also includes jobsite personnel development and jobsite management. This course was formerly known as ELECT 221.

ELTRN 130 Electrician Trainee V

Units: 4

Hours: 63 hours LEC; 27 hours LAB

Prerequisite: ELTRN 111 with a grade of "C" or better

This is the fifth course required for the Commercial/Residential Electrician Trainee Program. Topics include fundamentals of motors, motor controllers, process controllers, generators, and transformers. Topics also include testing of cables, generators, and motors. This course meets the State of California requirement to obtain an electrician trainee license. This course was formerly known as ELECT 230.

ELTRN 131 Electrician Trainee VI

Units: 4

Hours: 63 hours LEC; 27 hours LAB

Prerequisite: ELTRN 111 with a grade of "C" or better

This is the sixth course required for the Commercial/Residential Electrician Trainee Program. Topics include fire alarm systems, burglar alarm systems, and information transport systems (ITS). This course also covers basic electrical requirements for heating, air conditioning, and refrigeration systems. It meets the State of California requirement to obtain an electrician trainee license. This course was formerly known as ELECT 231.

ELTRN 180 Electrical Workers State Certification Preparation

Units: 4.5

Hours: 81 hours LEC

Prerequisite: None.

Advisory: ELTRN 111 with a grade of "C" or better

This is a preparatory course for the Electricians' State Licensing Certification for California. It reviews basic electrical formulas and provides an in-depth review of the National Electrical Code (NEC) and safety. This course was formerly known as ELECT 280.

ELTRN 295 Independent Study for the Electrician Trainee Program

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog allowing students to gain college credit while learning in-the-field.

ELTRN 298 Work Experience for Electrician Trainee

Units: 0.5 - 6

Hours: 27 - 324 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be in the American River College Electrician Trainee Program.

General Education: Local GE L7B

This course provides students the opportunity to work in the American River College Electrician Trainee Program to develop specific skills to meet the goals and objectives of the Division of Industrial Relations General Electrician Trainee Program. Students complete work experience hours at approved training sites. During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units. Only one Work Experience course may be taken per semester.

Electronics Technology

Overview

Electronic equipment is present everywhere in our lives. From computerized traffic signals to personal computers and cellular telephones, modern electronic systems make our everyday lives easier, safer, and more efficient. Electronic technicians design, develop, build, install, repair and maintain many different types of sophisticated electronic devices.

The American River College Electronics program combines broad based Electronic and Telecommunications training with the newest specialty areas (such as Robotics, Fiber Optics, Programmable Interface Controllers and Stamp Microcontrollers). By working closely with our industry partners, we ensure our curriculum is relevant and meets industry current and future needs. This relevant and up-to-date education prepares graduates for excellent career opportunities in the Electronics, Robotics or Telecommunications fields.

American River College is an official NARTE (National Association of Radio and Television Engineers) Federal Communication Commission (FCC) test site and offers an FCC license preparation course.

Degrees and Certificates Offered

A.S. in Biomedical Equipment Technology

A.S. in Electronic Systems Technology

A.S. in Mechatronics

Advanced Electronics and Telecommunications Certificate

Biomedical Equipment Technology Certificate

Digital Home Technology Integration Certificate

Electronic Systems Technology Certificate

Fiber Optics Certificate

Mechatronics Certificate

Robotics Certificate

Telecommunication Specialist Certificate

Basic Electronics and Telecommunications Certificate

Basic Mechatronics Certificate

Soldering and Cabling Certificate

Dean: Jon Wedding

Department Chair: Jordan Meyer

Phone: (916) 484-8588

Email: MCT@arc.losrios.edu

Associate Degrees

A.S. in Biomedical Equipment Technology

This degree covers the theory, operation, maintenance, troubleshooting, and certification of biomedical equipment used in hospitals, medical device manufacturers, or other service organizations. It includes an in-depth study of frequently used medical equipment.

Degree Requirements

Course Code	Course Title	Units
First Semester:		
ET 302	Principles of Electricity and Electronics	4
Second Semester (Fall Semester Only):		
BMET 425	Introduction to Biomedical Equipment Technology	4
Second or Other Semesters:		

Course Code	Course Title	Units
ET 253	Industrial Communication Systems Support	4
ET 322	Semiconductors and Nanotechnology	4
ET 335	Integrated Circuits with Computer Applications	4
ET 380	Introduction to Electronic Communications	4
ET 420	Microcontrollers and Digital Signal Processors	4
Third Semester (Spring Semester Only):		
BMET 426	Advanced Biomedical Equipment Technology	4
Third or Other Semesters:		
A minimum of 2 units from the following:		2
BMET 260	Introduction to Medical Ultrasound Equipment (0.5)	
BMET 261	Introduction to Biomedical Equipment Networking (1)	
BMET 262	Introduction to Respiratory Therapy Ventilators (0.5)	
BMET 263	Introduction to Medical X-ray Imaging Equipment (1)	
Total Units:		**34**

The Biomedical Equipment Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate the data from basic preventive maintenance tests on the following equipment: multi-parameter physiological monitor, electrocardiogram (ECG) machine, blood pressure monitor, defibrillator, pulse oximeter, infusion pump, and electrosurgical unit.
- distinguish and list various medical imaging technologies.
- set up standard electrical measurement tools and differentiate the uses for calibration and troubleshooting of medical equipment.
- set up the following equipment: multi-parameter physiological monitor, ECG machine, blood pressure monitor, defibrillator, pulse oximeter, infusion pump, and electrosurgical unit.
- categorize biopotentials and electrodes as they relate to basic human anatomy and physiology systems.
- associate the applicable regulation with the regulating organizations.
- list and compare the different types of bioelectric amplifiers, signal processing circuits, and isolation circuits.
- compare and contrast the protocols for working in the operating room and special care units in the hospital.

A.S. in Electronic Systems Technology

This degree combines broad-based electronic and telecommunications training with specialty areas such as robotics, fiber optics, programmable interface controllers (PICs), and stamp micro-controllers.

Degree Requirements

Course Code	Course Title	Units
First Semester - Basic Certificate:		
ET 115	Fiber Optics and Telecommunication Cabling	4
ET 302	Principles of Electricity and Electronics	4
ET 308	Technical Soldering Practices and Techniques	2
Second Semester - Advanced Certificate:		
ET 312	Mathematics for Circuit Analysis	3
ET 322	Semiconductors and Nanotechnology	4
Following Semesters:		
ET 381	Electronic Communication Regulations	3
ET 253	Industrial Communication Systems Support	4
ET 335	Integrated Circuits with Computer Applications	4
ET 380	Introduction to Electronic Communications	4
ET 420	Microcontrollers and Digital Signal Processors	4
Total Units:		**36**

The Electronic Systems Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- design and build several of the most common circuits used in electronics technology.
- calculate the mathematical relationships among voltage, current, resistance, capacitance, inductance, reactance, frequency, and phase angle as they relate to electronic circuits.
- analyze aviation, marine, and commercial communication systems that are covered in the FCC General Class Radiotelephone license examination.
- analyze operating and defective electronic circuits by interpreting data from a variety of test and measurement equipment.

- differentiate and diagram schematic symbols used in electronic and electrical industrial applications.
- use common hand tools in the mechanical installation of copper and fiber optic cabling used in sophisticated communication systems.
- research and interpret basic electronic components using manufacturers' data manuals, library resources, and the Internet.
- evaluate electrical parameters using various types of test and measurement equipment used in the analysis of power supply, amplifier, and general electronic circuits.

Career Information

This degree provides students with the knowledge to successfully enter a variety of electronics and telecommunication careers. Working closely with our industry partners and contacts ensures our curriculum is relevant and meets the current and future needs of the Electronics and Telecommunications Industry. American River College is an official test site of the National Association of Radio and Telecommunication Engineers (NARTE) for the Federal Communication Commission (FCC) General Radio Telephone License. Obtaining the Associate of Science degree and the certificate improves the opportunities for quality employment and career advancement.

A.S. in Mechatronics

This degree provides training in a multi-disciplinary field focusing on industrial automation. Topics include electricity, electronics, industrial motor controls, programmable logic controllers, robotics, AC/DC drives, mechanical design, and manufacturing technologies.

Degree Requirements

Course Code	Course Title	Units
First Semester:		
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD)	3
ET 302	Principles of Electricity and Electronics	4
WELD 300	Introduction to Welding	3
Other Semesters:		
DESGN 302	Technical Documentation with CADD (3)	3
or ENGR 312	Engineering Graphics (3)	
ET 193	Introduction to Robotics and Sensors	4
ET 197	Introduction to Mechatronics	4
ET 253	Industrial Communication Systems Support	4
Total Units:		**25**

The Mechatronics Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- integrate the principles of mechanical, electronic, and electrical technologies into the design of mechatronic systems.
- evaluate mechanical and electrical solutions to technological problems.
- apply industry-appropriate design techniques to develop technical design documents from a conceptual design.
- design robotic and machine automation systems using mechatronic principles.
- evaluate welding projects in accordance with welding procedures and specifications.
- contrast DC, AC, brushless, servo, and stepper motor operation.
- create technical documentation/presentations of models from the mechanical engineering discipline in both technically correct and visually pleasing solid, orthographic, and section view formats.
- design programmable logic controller (PLC) programs demonstrating input/output capabilities.
- design programs for an operator interface terminal (OIT) demonstrating input/output capabilities.

Career Information

This degree prepares students for the following technical and supervisory career opportunities: industrial mechanical/electrical systems technician, food processing machine service technician, facilities systems technician, waste water systems technician, manufacturing coordinator, field service technician, and mechanical electrical machine systems installer.

Certificates of Achievement

Advanced Electronics and Telecommunications Certificate

This certificate provides training in electronic system component identification and characteristics, semiconductor theory and application, power supply design and operation, telecommunication copper and fiber optic systems, the

mathematics for circuit analysis, and advanced troubleshooting. It is designed to be completed in two semesters.

Certificate Requirements

Course Code	Course Title	Units
ET 115	Fiber Optics and Telecommunication Cabling	4
ET 302	Principles of Electricity and Electronics	4
ET 308	Technical Soldering Practices and Techniques	2
ET 312	Mathematics for Circuit Analysis	3
ET 322	Semiconductors and Nanotechnology (4)	4
or ET 380	Introduction to Electronic Communications (4)	
or ET 335	Integrated Circuits with Computer Applications (4)	
Total Units:		**17**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze circuit operating characteristics by applying Ohm's, Watt's, and Kirchhoff's laws.
- research and interpret basic electronic components using manufacturers' data manuals, library resources, and the Internet.
- analyze and apply mathematics, including logarithms and decibels to determine, analyze, and control outputs when problem solving transistor and field effect transistor (FET) circuits.
- evaluate electrical parameters using various types of test and measurement equipment used in the analysis of power supply and amplifier circuits.
- apply mathematics and semiconductor theory to identify, evaluate, and troubleshoot electronic circuits.
- calculate the mathematical relationships among voltage, current, resistance, capacitance, inductance, reactance, frequency, and phase angle as they relate to electronic circuits.
- construct and test circuits on prototyping boards and printed circuit boards.
- design and simulate circuits in software.

Career Information

This certificate program enables students to find employment in the electronics industry or to progress up the career ladder. Skills development in the critical areas along with electronics and telecommunications theory and laboratory practice make this an ideal certificate for those wishing to upgrade and update their electronics skills.

Biomedical Equipment Technology Certificate

This certificate covers the theory, operation, maintenance, troubleshooting, and certification of biomedical equipment used in hospitals, medical device manufacturers, or other service organizations. It includes an in-depth study of frequently used medical equipment.

Certificate Requirements

Course Code	Course Title	Units
BMET 261	Introduction to Biomedical Equipment Networking	1
ET 302	Principles of Electricity and Electronics	4
ET 312	Mathematics for Circuit Analysis	3
ET 322	Semiconductors and Nanotechnology (4)	4
or ET 335	Integrated Circuits with Computer Applications (4)	
or ET 380	Introduction to Electronic Communications (4)	
BMET 425	Introduction to Biomedical Equipment Technology	4
BMET 426	Advanced Biomedical Equipment Technology	4
A minimum of 1 unit from the following:		1
BMET 260	Introduction to Medical Ultrasound Equipment (0.5)	
BMET 262	Introduction to Respiratory Therapy Ventilators (0.5)	
BMET 263	Introduction to Medical X-ray Imaging Equipment (1)	
ET 298	Work Experience in Electronics Technology (0.5 - 4)	
Total Units:		**21**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate the data from basic preventive maintenance tests on the following equipment: multi-parameter physiological monitor, electrocardiogram (ECG) machine, blood pressure monitor, defibrillator, pulse oximeter, infusion pump, and electrosurgical unit.
- distinguish and list various medical imaging technologies.
- set up standard electrical measurement tools and differentiate the uses for calibration and troubleshooting of medical equipment.
- set up the following equipment: multi-parameter physiological monitor, ECG machine, blood pressure monitor, defibrillator, pulse oximeter, infusion pump, and electrosurgical unit.
- categorize biopotentials and electrodes as they relate to basic human anatomy and physiology systems.
- associate the applicable regulation with the regulating organizations.

- list and compare the different types of bioelectric amplifiers, signal processing circuits, and isolation circuits.
- compare and contrast the protocols for working in the operating room and special care units in the hospital.

Career Information

This program prepares electronics technology students for a biomedical technician internship or trainee position.

Digital Home Technology Integration Certificate

This certificate provides training to configure, integrate, maintain, and troubleshoot electronic and digital home integration systems. Coursework provides the essential skills for residential networking concepts, components, and information on home network installation. This includes techniques to install, trim, terminate, and troubleshoot cabling systems. In addition, it provides the training and skills necessary to integrate audio, security, and environmental controls in a complete system.

Certificate Requirements

Course Code	Course Title	Units
ET 115	Fiber Optics and Telecommunication Cabling	4
ET 253	Industrial Communication Systems Support	4
ET 302	Principles of Electricity and Electronics	4
ET 385	Digital Home Technology Integration	4
ET 388	Fiber Optics	4
Total Units:		**20**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- design a home data network
- construct a home telephone network
- evaluate and troubleshoot a home network
- assemble a home audio and video network
- build a wireless home network
- certify a home data and telephone network
- set up a security and fire alarm system in a home
- apply industry standards to system design for a home

Career Information

This certificate prepares individuals to design, install, and support residential networks and home integration for employment in the home technology industry. It develops the technicians' ability to configure, integrate, maintain, and troubleshoot home theater, music, security, and home networks.

Electronic Systems Technology Certificate

This certificate combines broad-based electronic and telecommunications training with specialty areas such as robotics, fiber optics, programmable interface controllers (PICs), and stamp micro-controllers.

Certificate Requirements

Course Code	Course Title	Units
ET 115	Fiber Optics and Telecommunication Cabling	4
ET 302	Principles of Electricity and Electronics	4
ET 308	Technical Soldering Practices and Techniques	2
ET 312	Mathematics for Circuit Analysis	3
ET 322	Semiconductors and Nanotechnology	4
ET 381	Electronic Communication Regulations	3
ET 253	Industrial Communication Systems Support	4
ET 335	Integrated Circuits with Computer Applications	4
ET 380	Introduction to Electronic Communications	4
ET 420	Microcontrollers and Digital Signal Processors	4
Total Units:		**36**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- design and build several of the most common circuits used in electronics technology.
- calculate the mathematical relationships among voltage, current, resistance, capacitance, inductance, reactance, frequency, and phase angle as they relate to electronic circuits.
- analyze aviation, marine, and commercial communication systems that are covered in the FCC General Class Radiotelephone license examination.
- analyze working and defective electronic circuits by interpreting data from a variety of test and measurement equipment.
- differentiate and diagram schematic symbols used in electronic and electrical industrial applications.

- use common hand tools in the mechanical installation of copper and fiber optic cabling used in sophisticated communication systems.
- research and interpret basic electronic components using manufacturers' data manuals, library resources, and the Internet.
- evaluate electrical parameters using various types of test and measurement equipment used in the analysis of power supply, amplifier, and general electronic circuits.

Career Information

This certificate provides students with the knowledge to successfully enter a variety of electronics and telecommunication careers. Working closely with our industry partners and contacts ensures our curriculum is relevant and meets the current and future needs of the Electronics and Telecommunications Industry. American River College is an official test site of the National Association of Radio and Telecommunication Engineers (NARTE) for the Federal Communication Commission (FCC) General Radio Telephone License.

Fiber Optics Certificate

This certificate is an introduction to fiber optics technology. Topics include fusion and mechanical splicing, fiber connectivity, optical time domain reflectometer (OTDR), and other specialized test equipment operations. System design, installation, troubleshooting, and repair are emphasized. Courses in communication theory and copper cabling are included in the certificate, producing a technician with a wide variety of skills.

Certificate Requirements

Course Code	Course Title	Units
ET 115	Fiber Optics and Telecommunication Cabling	4
ET 302	Principles of Electricity and Electronics	4
ET 388	Fiber Optics	4
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- define the terminology used with single mode fiber optic cable.
- apply correct safety procedures when working with high power fiber optic modules and test equipment.
- calculate the attenuation in a complete fiber optic communication system.
- inspect and identify fiber optic system problems.
- evaluate communication system components for a given application.
- compare fiber optic component specifications using manufacturers' data manuals, reference books, and the Internet.
- perform inspection and quality control of fusion and mechanical fiber optic splices.

Career Information

This certificate prepares students for entry-level employment in a wide variety of positions in the telecommunication and fiber optic industry. It is also valuable for people working in the industry to upgrade their skill level to include the newest advancements in fiber technology.

Mechatronics Certificate

This certificate provides training in a multi-disciplinary field focusing on industrial automation. Topics include electricity, electronics, industrial motor controls, programmable logic controllers, robotics, AC/DC drives, mechanical design, and manufacturing technologies.

Certificate Requirements

Course Code	Course Title	Units
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD)	3
ET 302	Principles of Electricity and Electronics	4
WELD 300	Introduction to Welding	3
ET 197	Introduction to Mechatronics	4
DESGN 302	Technical Documentation with CADD (3)	3
or ENGR 312	Engineering Graphics (3)	
ET 193	Introduction to Robotics and Sensors	4
ET 253	Industrial Communication Systems Support	4
Total Units:		**25**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- integrate the principles of mechanical, electronic, and electrical technologies into the design of mechatronic systems.
- evaluate mechanical and electrical solutions to technological problems.

- apply industry-appropriate design techniques to develop technical design documents from a conceptual design.
- design robotic and machine automation systems using mechatronic principles.
- evaluate welding projects in accordance with welding procedures and specifications.
- contrast DC, AC, brushless, servo, and stepper motor operation.
- create technical documentation/presentations of models from the mechanical engineering discipline in both technically correct and visually pleasing solid, orthographic, and section view formats.
- design programmable logic controller (PLC) programs demonstrating input/output capabilities.
- design programs for an operator interface terminal (OIT) demonstrating input/output capabilities.

Career Information

This certificate prepares students for the following career opportunities: industrial mechanical/electrical systems technician, food processing machine service technician, facilities systems technician, waste water systems technician, manufacturing coordinator, field service technician, and mechanical electrical machine systems installer.

Robotics Certificate

The certificate provides an overview of the application, programming, and design of robotic systems and components. It covers the theory and application of electronics, sensors, controllers, and robots. Various robotic platforms are used to give a wide understanding of all types of current and future systems.

Certificate Requirements

Course Code	Course Title	Units
ET 302	Principles of Electricity and Electronics	4
ET 197	Introduction to Mechatronics	4
ET 193	Introduction to Robotics and Sensors	4
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and describe the terminology used when working with microcontrollers.
- program a microcontroller.
- compare brushed DC, brushless DC, stepper, and RC servo motor characteristics.
- construct and program mobile and pick-and-place robots.
- calculate speed and acceleration of robotic motion.
- describe the principles of sensors used to measure pressure and temperature.
- create simple electronic schematics using basic schematic symbols.
- analyze and troubleshoot basic electronic circuits.
- diagnose simple circuit failures with standard electronic measurement devices.
- design a PLC Logic circuit demonstrating input/output capabilities and timer and counter operation.

Career Information

This certificate may lead to careers in the following: robotics technician, manufacturing technician, automated warehouse technician, and facilities technician.

Telecommunication Specialist Certificate

This certificate provides both theory and hands-on application using fiber optics, coaxial cable, and CAT 6 data cable. All aspects of communication systems are covered including antennas, transmitters and receivers, transmission lines, and signal propagation. System design and troubleshooting are also included.

Certificate Requirements

Course Code	Course Title	Units
ET 115	Fiber Optics and Telecommunication Cabling	4
ET 302	Principles of Electricity and Electronics	4
ET 308	Technical Soldering Practices and Techniques	2
ET 312	Mathematics for Circuit Analysis	3
ET 322	Semiconductors and Nanotechnology	4
ET 381	Electronic Communication Regulations	3
ET 253	Industrial Communication Systems Support	4
ET 380	Introduction to Electronic Communications	4
ET 388	Fiber Optics	4
Total Units:		**32**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate potential problems associated with electrostatic discharge (ESD).
- analyze and troubleshoot basic electronic circuits.
- compare and contrast series and parallel resistive, capacitive, and inductive devices.
- analyze the differences between surface-mount techniques and through-hole techniques.
- analyze and describe the components of a complete telecommunication system.
- design an office building telecommunication system using fiber optics and copper cable.
- examine and evaluate the decibel losses and gains in a complete fiber optic communication system.
- assess safety hazards when working with fiber optic systems and associated test equipment.
- perform repairs and adjustments to electronic communication systems according to factory specifications.
- install epoxy, hotmelt, anaerobic, and mechanical connectors on multimode fiber optic cable.
- prepare cost estimates for fiber optic and copper network installation using computer software.
- identify and diagram schematic symbols used in industrial electronic and electrical applications.
- analyze aviation, marine and commercial communication systems that are covered in the FCC General Class Radiotelephone license examination.
- apply FCC rules and regulations governing commercial, aviation, and marine communication systems to practical communication systems.

Career Information

This certificate provides training for design, installation, and maintenance of any type of wired or wireless communication system such as remote monitoring, radio frequency (RF) control, radio and television transmitters, public safety and government communication equipment, and fiber optic systems.

Certificates

Basic Electronics and Telecommunications Certificate

This certificate provides training in basic electronics theory and applications, telecommunication copper and fiber optic systems, and surface mount soldering devices (SMD). It also includes schematic symbol interpretation and basic electronic troubleshooting. This certificate can be completed in one semester, making it an ideal stepping stone to the Advanced Electronics and Telecommunications certificate.

Certificate Requirements

Course Code	Course Title	Units
ET 302	Principles of Electricity and Electronics	4
A minimum of 5 units from the following:		5
ET 115	Fiber Optics and Telecommunication Cabling (4)	
ET 308	Technical Soldering Practices and Techniques (2)	
ET 312	Mathematics for Circuit Analysis (3)	
Total Units:		**9**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate potential problems associated with electrostatic discharge (ESD).
- assess safety hazards when working with electronic systems.
- create simple electronic schematics using basic schematic symbols.
- construct, analyze, and troubleshoot basic electronic circuits.
- apply electrical concepts to measure and evaluate resistance, capacitance, and inductive devices and circuits.
- synthesize and analyze electronic circuitry using computer electronic-simulation software.
- diagnose simple circuit failures with basic electronic measurement devices.
- assemble electronic circuits using basic soldering techniques.
- solve mathematical and algebraic problems as applied to electronic circuits.
- apply Ohm's, Watt's, and Kirchhoff's laws to determine and analyze circuit operating characteristics.

Career Information

This certificate is designed for anyone wanting to enter the electronics or telecommunications industry. It satisfies the requirements of a variety of entry-level positions such as printed circuit board (PCB) assembler, telecommunication field technician, or rework technician.

Basic Mechatronics Certificate

This certificate provides introductory training in the multidisciplinary field of mechatronics, which combines mechanical and electronic technologies. Topics include introductory courses in electronics, programmable logic controllers, basic CAD design, and welding.

Certificate Requirements

Course Code	Course Title	Units
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD)	3
ET 197	Introduction to Mechatronics	4
ET 302	Principles of Electricity and Electronics	4
WELD 300	Introduction to Welding	3
Total Units:		**14**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- integrate the basic principles of mechanical, electronic, and electrical technologies into the design of mechatronic systems.
- evaluate mechanical and electrical solutions to technological problems.
- apply basic design techniques to develop technical design documents.
- design basic robotic and machine automation systems using mechatronic principles.
- create and evaluate welding projects in accordance with welding procedures and specifications.

Career Information

This certificate prepares students for internships and entry-level employment with local industries using mechatronic and design principles.

Soldering and Cabling Certificate

This course covers Institute for Interconnecting and Packaging Electronic Circuits (IPC) standards for the inspection and evaluation of printed circuit boards and cable assemblies used in the electronics industry. ET 308, Technical Soldering Practices and Techniques, and this course qualifies students to take the tests for IPC Electronic Circuits Specialist and Certified IPC Application Specialist certifications. These certifications are valued by local employers. Field trips may be required.

Certificate Requirements

Course Code	Course Title	Units
ET 115	Fiber Optics and Telecommunication Cabling	4
ET 302	Principles of Electricity and Electronics	4
ET 308	Technical Soldering Practices and Techniques	2
ET 309	Soldering and Cabling Quality Standards	3
Total Units:		**13**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- create simple electronic schematics using basic schematic symbols.
- analyze and troubleshoot basic electronic circuits.
- differentiate, setup, and operate a wide variety of soldering and desoldering equipment, workstations, and fixtures that may require visual observation.
- inspect and evaluate solder connections in accordance to industry standards.
- demonstrate the skill of soldering and desoldering under varying conditions.
- assemble and construct connectors and plugs used in telecommunication systems.
- identify and describe the use of tools and test equipment necessary for fiber optic and copper cable installations.

Career Information

This certificate may lead to careers in the following: soldering, PC board repair, cable assembler, cable designer, printed circuit board inspector, cable assembly inspector, electronics industry inspector or management.

Electronics Technology (ET) Courses

ET 103 Ham Radio Technician License Preparation

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

This course covers the fundamentals of amateur radio required to pass the national Association for Amateur Radio Relay League (ARRL) amateur radio operators technician license. Topics include wave theory, operator rules, proper radio operation, electronics review, and regulations.

ET 115 Fiber Optics and Telecommunication Cabling

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course introduces the concepts of telecommunication cable installation and connection practices and standards. It includes the study of commonly used fiber optic and copper cable types and connectors, installation tools, and test equipment. It emphasizes installation techniques in practical situations. Laboratory activities provide practical hands-on experience in the operation and use of tools and test equipment specific to the telecommunication industry. Field trips may be required.

ET 193 Introduction to Robotics and Sensors

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

This course is an introduction to robotics, controllers, and sensors. Topics include the operation and design of robots and sensors, hardware component selection, assembly, and software programming of various types of sensors and robotic assemblies. Field trips may be required.

ET 197 Introduction to Mechatronics

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ET 302 with a grade of "C" or better

This course introduces mechatronics, the combination of electronic and mechanical components and systems used in the control and transmission of mechanical power. Topics include the analysis of electric controls, programmable logic controllers (PLCs), electromagnetic devices, sensors, pneumatic devices, and electric motors. Field trips may be required.

ET 250 Employability Skills for Technical Careers

Same As: AT 107 and WELD 150

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

General Education: Local GE L7B

This course provides the opportunity to explore technical careers while developing valuable work and life skills. It is an introduction to a variety of technically related occupations, emphasizing technical careers in the Sacramento area. Activities are designed to enhance personal development, employability skills, and self-esteem through leadership, citizenship, and character development. This course is not open to students who have completed AT 107 or WELD 150.

ET 253 Industrial Communication Systems Support

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ET 302 with a grade of "C" or better

This course covers the operation, repair, and assembly of personal computers (PC), portable test units (PTU), and communication systems. Safety, terminology, component identification, file management, industry-specific hardware and software, and upgrades in the industry are among the topics covered. Wired, wireless, voice over Internet protocol (VoIP), analog/digital communications, and synchronous optical networks (SONET) are also covered. Field trips may be required.

ET 260 Introduction to Medical Ultrasound Equipment

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

Corequisite: BMET 425

This course provides in-depth training for maintaining ultrasound equipment used in the biomedical field. It covers imaging modes, physical principles, transducers, system block diagrams, common peripherals, Doppler effect, image quality, test equipment, and troubleshooting.

ET 261 Introduction to Biomedical Equipment Networking

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: ET 253 and 302;

This course provides an overview of IT networking for biomedical devices. Topics include basic IT networking, network architectures for connecting medical devices, cybersecurity, medical device-related networking standards (e.g., HL-7, DICOM, FHIR), tools for testing and troubleshooting, and other related topics (e.g., working with your IT department).

ET 262 Introduction to Respiratory Therapy Ventilators

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

Corequisite: BMET 425

This course provides in-depth training for the maintenance of respiratory ventilation machines used in the biomedical field. It covers respiratory ventilator basics, ventilator block diagrams, patient circuits, test equipment, and troubleshooting.

ET 263 Introduction to Medical X-ray Imaging Equipment

Units: 1

Hours: 18 hours LEC

Prerequisite: BMET 425 with a grade of "C" or better

This course provides an introduction to the maintenance of medical X-ray imaging equipment. It covers X-ray generators, components of vacuum tube and solid state imaging chains, cameras, digitizing methods, processing, display methods, and radiation safety.

ET 294 Topics in Electronics Technology

Units: 0.5 - 5

Hours: 6.75 - 67.5 hours LEC; 6.75 - 67.5 hours LAB

Prerequisite: None.

This is an individualized course developed in cooperation with industry to meet specialized training needs. It may be taken four times with no duplication of topics.

ET 295 Independent Studies in Electronics Technology

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ET 298 Work Experience in Electronics Technology

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Electronics Technology Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the electronics industry. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to

attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

ET 299 Experimental Offering in Electronics Technology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

ET 302 Principles of Electricity and Electronics

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

This introductory course explores the field of electronics and electricity. Topics include the theory of AC, DC, Ohm's law, inductance, and capacitance. Theory is reinforced through the use of electronic simulation software and hands-on lab experiments using industry instruments. Field trips may be required.

ET 308 Technical Soldering Practices and Techniques

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU

This course provides training in the standards, processes, and techniques related to the field of lead and lead-free soldering. It emphasizes the differences between lead and lead-free soldering processes. Topics include safety, Electrostatic Discharge (ESD), Printed Circuit Board (PCB) components and assembly, electronic components and identification, lead and lead-free soldering and desoldering techniques in Plated Through Hole (PTH), Surface Mount Device/Technology (SMD/SMT), and fine to ultra-fine-pitch soldering. Field trips may be required.

ET 309 Soldering and Cabling Quality Standards

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: ET 115 and 308

Transferable: CSU

This course covers Interconnecting and Packaging Council (IPC) standards for the inspection and evaluation of printed circuit boards and cable assemblies used in the electronics industry. It prepares students to take the tests for IPC Electronic Circuits Specialist and Certified IPC Application Specialist certifications. Field trips may be required.

ET 312 Mathematics for Circuit Analysis

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers the mathematical foundations for the analysis of electrical and electronic circuits. It includes the analysis of direct current (DC), alternating current (AC), transformer, capacitor, inductor, and energy conversion circuits.

ET 322 Semiconductors and Nanotechnology

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ET 302 with a grade of "C" or better

Corequisite: ET 312

Transferable: CSU

This course is a detailed study of semiconductor devices and their applications. Semiconductor components - such as diodes, transistors, op-amps, including their use in complex circuits - are covered. Nanotechnology theory and devices, including their present and possible future applications, are studied. Field trips may be required.

ET 335 Integrated Circuits with Computer Applications

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ET 302 with a grade of "C" or better

Transferable: CSU

This course covers integrated circuits (ICs) and applications used in industrial and consumer products. Topics include digital theory and applications from standard transistor-transistor-logic (TTL) logic circuits to complex circuits built on programmable logic devices (PLDs). Field trips may be required.

ET 369 The Design and Fabrication of Electronics Projects

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: ET 322, 335, or 380 with a grade of "C" or better

Transferable: CSU

This course provides an opportunity to design and build advanced projects. It includes work on approved electronics projects outside the scope of typical classroom applications. It covers the process of planning, design, prototyping, and fabrication while building an actual working project. Completed projects are entered in county and statewide technology contests, such as the California State Fair Industrial Technology competition. A completed project is a course requirement. Projects can be completed individually or in teams. Field trips are required.

ET 380 Introduction to Electronic Communications

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ET 302 with a grade of "C" or better

Transferable: CSU

This course covers electronic communications, including UHF, VHF, microwave, satellite, and fiber optics. AM and FM transmitters, transmission lines, antennas, and receivers are analyzed down to the component level. Propagation, wave theory, decibels, and signal transmission limitations are also covered. Technician safety and proper test equipment use are stressed throughout the course. Field trips may be required.

ET 381 Electronic Communication Regulations

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: ET 312, 322, or 380 with a grade of "C" or better

Transferable: CSU

This course provides an overview of the Federal Communications Commission (FCC) General Radiotelephone license requirements. It also covers electronics theory and the rules and regulations mandated by the FCC. Field trips may be required.

ET 385 Digital Home Technology Integration

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ET 115 with a grade of "C" or better

Transferable: CSU

This course covers the fundamentals of Home Technology Integration (HTI). It includes the study of and practical experience in the installation, integration, and troubleshooting of entertainment, voice, security, data, and networking systems found in the home or small office. Field trips may be required.

ET 388 Fiber Optics

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ET 302 with a grade of "C" or better

Advisory: ET 380

Transferable: CSU

This course in fiber optics covers optical theory and operation including the complete fiber optic communication system. It includes fiber optic terminology and instruction in the use of tools and equipment associated with fiber optic installation and maintenance. Tests of the fiber optic systems are performed using sophisticated equipment such as optical power meters and optical time domain reflectometers (OTDR). It also includes system design and troubleshooting procedures. Field trip may be required.

ET 420 Microcontrollers and Digital Signal Processors

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ET 302 with a grade of "C" or better

Transferable: CSU

This course is an in-depth study of microcontrollers and digital signal processors (DSP). It focuses on digital concepts, such as data flow, internal architecture, memory, data converters, special registers, and the interfacing of input/output devices, sensors, and motors. Field trips may be required.

ET 421 Advanced Electronic Communications

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ET 253 and 380 with grades of "C" or better

Transferable: CSU

This course covers advanced analog and digital electronic communications including digital two-way radio, cellular, microwave, satellite, and broadcast communications. Topics include digital radio frequency theory, digital transmitters and receivers, P25 digital radio, antennas, software-defined radios, and related industry test equipment.

Field trips may be required.

ET 425 Introduction to Biomedical Equipment Technology

Units: 4

Hours: 72 hours LEC

Prerequisite: ET 302 with a grade of "C" or better

Transferable: CSU

This course covers the fundamentals of biomedical equipment and the responsibilities of electronics technicians in the medical device service industry for hospitals, medical device manufacturers, or other service organizations. It includes a detailed study of the theory, operation, and maintenance of hospital equipment, systems, and procedures, and the related electronic systems. Additional topics include basic anatomy and physiology as they relate to the biomedical equipment. Field trips may be required.

ET 426 Advanced Biomedical Equipment Technology

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: BMET 425 with a grade of "C" or better

Transferable: CSU

This course covers the operation, maintenance, troubleshooting, and certification of biomedical equipment used in the medical device industry. It includes an in-depth, hands-on study of frequently used medical equipment, preparing electronic technology students for a biomedical technician internship or trainee position in a hospital, medical device manufacturer, or other service organization. Field trips may be required.

ET 490 Advanced Student Projects Laboratory

Units: 2

Hours: 108 hours LAB

Prerequisite: ET 335 or 380 with a grade of "C" or better

Transferable: CSU

This course provides an opportunity for students to pursue advanced electronics projects to learn and practice skills needed in the construction, installation, maintenance, and repair of electronic devices.

ET 495 Independent Studies in Electronics Technology

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ET 499 Experimental Offering in Electronics Technology

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Emergency Medical Technology

Overview

Emergency Medical Services is an allied health specialty whose practitioners respond to emergencies before a patient reaches a hospital, rendering basic and advanced medical treatment before and during transport to a medical facility. Classroom, clinical, and field internship training prepares Emergency Medical Technicians (EMT) to assess and treat a variety of medical emergencies. The knowledge, skills, and experience gained through a one-semester program allow students to meet the responsibilities outlined in the Department of Transportation's Emergency Medical Services Education Standards.

The ARC Emergency Medical Technology (EMT) program prepares individuals to render pre-hospital basic life support within an organized Emergency Medical Services (EMS) system.

The ARC EMT program is approved by the Sacramento County EMS agency.

Certificates Offered

Emergency Medical Technician (EMT) Certificate

Dean: Narinedat Madramootoo

Department Chair: Grant Goold

Phone: (916) 484-8902

Email: askhb-healthed@arc.losrios.edu

Certificate

Emergency Medical Technician (EMT) Certificate

This program prepares students to function as certified Emergency Medical Technicians. Training topics include the skills necessary to provide emergency medical care at a basic life support level with a fire, ambulance, or other specialized service. This program is conducted in compliance with Title 22, Division 9, Chapter 2 of the California Code of Regulations and Emergency Medical Technician (EMT). A "C" or better is required to obtain a course completion certificate.

Certificate Requirements

Course Code	Course Title	Units
EMT 110	Emergency Medical Technician (EMT) Didactic	6
EMT 111	Emergency Medical Technician (EMT) Practicum	1
Total Units:		**7**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Documentation of current American Heart Association CPR Basic Life Support certification. No other form of CPR certification is accepted. Students must be present and provide a copy of the AHA CPR certification on the first day of the course. Not open to students with current NREMT or California State certification or licensure as an EMT, EMT-Basic, Advanced EMT or paramedic.

Enrollment Process

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

- Verification of current American Heart Association Basic Life Support CPR certification. No other form of CPR certification is accepted. Students must be present and provide a copy of the AHA CPR certification on the first day of the course. Not open to students with current NREMT or California State certification or licensure as an EMT, EMT-Basic, Advanced EMT or paramedic.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate the nature and seriousness of the patient's condition or extent of injuries.
- apply emergency medical care based on assessments and findings.
- demonstrate proper procedures in lifting, moving, and positioning a patient to minimize discomfort and prevent further injury.
- utilize communicating, transporting, and record keeping skills.

Career Information

Emergency Medical Technicians operate in a variety of settings from public emergency services, private industry and health care facilities. EMT employment varies from community to community and is considered a growing occupation within the Allied Health professions.

Emergency Medical Technology (EMT) Courses

EMT 109 Emergency Medical Responder

Same As: PMED 108

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Documentation of current certification in American Heart Association Healthcare Provider or Basic Life Support level CPR must be presented on the first day of the course. Not open to students with current NREMT or California State certification or license as an EMR, EMT, Advanced EMT or paramedic.

This course is an introduction to the principles and practices of prehospital Emergency Medical Services (EMS). It is intended to prepare the student for national, state, or local certification as an Emergency Medical Responder (EMR). The EMR responds to patients suffering from medical and trauma related emergencies and assists other EMS personnel during ambulance transport. This course can be taken once for credit and is a prerequisite to EMT 110. The course conforms to the 2019 National EMS Scope of Practice Model and 2021 EMS National Education Standards. Field trips and off-campus lab assignments may be required.

EMT 110 Emergency Medical Technician (EMT) Didactic

Units: 6

Hours: 81 hours LEC; 81 hours LAB

Prerequisite: None.

Enrollment Limitation: Documentation of current American Heart Association CPR Basic Life Support certification. No other form of CPR certification will be accepted. Students must be present and provide a copy of the AHA BLS CPR certification on the first day of the course. Not open to students with current NREMT or California State certification or licensure as an EMT, EMT-Basic, Advanced EMT or paramedic.

Advisory: AH 311 and PMED 108; MATH 32 (Pre-Algebra), or MATH 42 (Algebra Readiness - Part II)

This course provides academic preparation and psychomotor skills training to prepare the student for EMT 111, the Basic Life Support (BLS) clinical and field practicum. Successful completion of EMT 110 and EMT 111 will make the student eligible to take the National Registry of EMTs (NREMT) EMT certification exam. Topics include the BLS knowledge, application, and problem solving necessary to work as an EMT (formerly known as EMT-Basic or EMT-1) in the Emergency Medical Services (EMS) field for an ambulance service, fire department, emergency department, or other specialized service. A “C” letter grade as well as successful completion of the EMT 110 Exit Exam and psychomotor skill tests are required to be eligible for EMT 111. The course conforms to the 2007 National EMS Scope of Practice Model and 2009 EMS National Education Standards and complies with Title 22, Division 9, Chapter 2 of the California State Code of Regulations. This course is approved by the Emergency Medical Services (EMS) Agency of the Sacramento County Health Department. Off-campus lab assignments may be required.

EMT 111 Emergency Medical Technician (EMT) Practicum

Units: 1

Hours: 54 hours LAB

Prerequisite: EMT 110 with a grade of "C" or better

Enrollment Limitation: Current Healthcare Provider CPR certification or equivalent is required. Must be able to pass a qualifying background check and drug screen, show proof of current immunizations. The student must be able to purchase online resources, malpractice insurance as well as a uniform and other lab equipment. This course is not available to students with current EMT certification or who are licensed paramedics since they have already achieved the learning outcomes for this course. Due to regulatory requirements, this course must be completed less than twelve months after the beginning of EMT 110.

Advisory: AH 311; MATH 32 (Pre-Algebra), or MATH 42 (Algebra Readiness - Part II)

This course provides the supervised practical lab hours necessary to complete EMT education after completion of EMT 110. Successful completion of EMT 110 and EMT 111 will make the student eligible to take the National Registry of EMTs (NREMT) EMT certification exam. The student is placed in the clinical and field environments necessary to obtain the minimum required patient contacts. This course conforms to the 2007 National EMS Scope of Practice Model as well as the 2009 EMS National Education Standards and complies with Title 22, Division 9, Chapter 2 of the California State Code of Regulations. This course is approved by the Emergency Medical Services (EMS) Agency of the Sacramento County Health Department. Field trips or off-campus lab assignments are required. This course is Pass/No Pass only.

EMT 150 Advanced Emergency Medical Technician (AEMT) Didactic

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: HEED 310 and 323 with grades of "C" or better

Enrollment Limitation: Current Healthcare Provider CPR or equivalent recognition and California State EMT certification are required. The student must be able to purchase online resources as well as a uniform and other lab equipment. This course is not available to certified NREMT or California State Advanced EMTs or paramedics.

Advisory: AH 311, BIOL 304, and PMED 105; ENGWR 102, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better; MATH 32 (Pre-Algebra), or MATH 42 (Algebra Readiness - Part II)

This course provides academic preparation and psychomotor skills training to prepare the student for EMT 151, the Advanced Emergency Medical Technician (AEMT) clinical and field Internship. Successful completion of EMT 150 and EMT 151 will make the student eligible to take the National Registry of EMTs (NREMT) Advanced EMT certification exam. Topics include the Limited Advanced Life Support (LALS) knowledge, application and problem solving skills necessary to work as an AEMT (formerly known as EMT-Intermediate or EMT-2) in the Emergency Medical Services (EMS) field for an ambulance service, fire department, emergency department or other specialized service. A “C” letter grade as well as successful completion of the EMT 150 Exit Exam and psychomotor skill tests are required to be eligible for EMT 151. The course conforms to the 2007 National EMS Scope of Practice Model and 2009 EMS National Education Standards and complies with Title 22, Division 9, Chapter 3 of the California State Code of Regulations. This course is approved by the Emergency Medical Services (EMS) Agency of the Sacramento County Health Department. Field trips or off-campus lab assignments are required.

EMT 151 Advanced Emergency Medical Technician (AEMT) Internship

Units: 3.5

Hours: 189 hours LAB

Prerequisite: EMT 150, HEED 310, and HEED 323 with grades of "C" or better

Enrollment Limitation: Current Healthcare Provider CPR or equivalent certification and California State EMT certification is required. The student must be able to pass a qualifying background check and drug screen, show proof of current immunizations. The purchase of online resources, malpractice insurance as well as a uniform and other lab equipment is also required. This course must be completed less than six months after the completion of EMT 150. This course is not available to NREMT or California State certified AEMTs or paramedics.

Advisory: AH 311 and BIOL 304; PMED 105 or NURSE 320

This course provides supervised clinical and field internship experience at the Limited Advanced Life Support (LALS) scope of practice. Successful completion of EMT 150 and EMT 151 makes the student eligible to take the National Registry of EMTs (NREMT) Advanced Emergency Medical Technician (AEMT) certification exam. The course conforms to the 2007 National EMS Scope of Practice Model and 2009 EMS National Education Standards and complies with Title 22, Division 9, Chapter 3 of the California State Code of Regulations. This course is approved by the Emergency Medical Services (EMS) Agency of the Sacramento County Health Department. Field trips or off-campus lab assignments are required.

EMT 298 Work Experience in Emergency Medical Technology

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Emergency Medical Technology Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the emergency medical technology field. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

Energy

Overview

ARC Solar Certificate Program Overview

The ARC Solar Certificate Program is a comprehensive, industry-aligned training path designed to launch your career in the rapidly growing solar energy sector. This program equips you with the advanced technical and professional skills needed to manage the complete lifecycle of residential and commercial photovoltaic (PV) systems, from initial concept to final operation.

Core Curriculum & Technical Mastery

You will master the essential technical pillars of solar energy, including:

- System Design & Installation: Detailed instruction in AC/DC electrical and mechanical calculations, effective site surveying, and hands-on PV system integration.

- Advanced Components: Specialized knowledge of energy storage systems (ESS) and grid integration principles.
- Compliance & Safety: In-depth training on current electrical codes, industry standards, and critical job-site safety protocols.

Business & Professional Skills

Beyond the technical training, the curriculum integrates crucial business competencies essential for career advancement:

- Financial & Sales Analysis: Training in project financial analysis and effective sales strategies.
- Management & Presentation: Developing strong management skills and delivering impactful client presentations.

Certification & Career Pathways

Upon successful completion, the certificate courses qualify you to take the highly respected North American Board of Certified Energy Practitioners (NABCEP) PV Entry Level Certificate of Knowledge Exam.

Graduates are prepared to immediately branch into diverse, high-demand career roles, including:

- Designers
- Certified Installers
- Inspectors
- Energy Consultants

Opportunities await with utility companies, municipal organizations, leading manufacturers, and specialized contractors across the nation.

Certificates Offered

Solar Energy Systems Design, Estimation, and Sales Certificate

Solar Energy Technology Certificate

Basic Solar Certificate

Dean: Jon Wedding

Department Chair: Jordan Meyer

Phone: (916) 484-8588

Email: MCT@arc.losrios.edu

Certificates of Achievement

Solar Energy Systems Design, Estimation, and Sales Certificate

This certificate provides training in all aspects of solar photovoltaic (PV) system design, cost estimation, sales, and installation. It also includes training in oral presentations and management skills.

Certificate Requirements

Course Code	Course Title	Units
BUS 300	Introduction to Business (3)	3
or BUS 350	Small Business Management/Entrepreneurship (3)	
COMM C1000	Introduction to Public Speaking	3
ENERGY 140	Electrical Applications for Solar Installers	3
ENERGY 141	Electrical & Mechanical Applications for Solar Installers	3
ENERGY 143	Solar Photovoltaic Systems Design, Installation, and Troubleshooting	4
ET 302	Principles of Electricity and Electronics	4
Total Units:		**20**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe the components in a complete grid-tie PV system.
- construct solar PV battery charging systems.
- analyze test equipment data to determine the location of the "sweet spot" on a solar PV panel's Current--Voltage (IV) curves.
- identify tools and test equipment necessary for solar PV panel installations.
- identify different sizes of wire according to American Wire Gauge (AWG) tables.
- construct a simulated roof system using industry standard building materials.
- calculate the amount of yearly solar radiance in relationship to shading using the Solmetric's SunEye predictor and software.
- inspect and repair malfunctioning components in a functioning grid tie solar PV system.

- estimate the yearly power output for a solar photovoltaic system using both the SunEye and the Pathfinder sun angle and shade predictor.
- identify typical locations of electrical/mechanical failures in PV systems.
- maximize communication effectiveness by specifying, planning for, and adapting to the specific audience.
- identify and analyze factors that contribute to effective design, development, and delivery of presentations.
- relate the communication process to public speaking situations.
- assess the ways to start a business and which form of business organization should be used.
- explain the importance of a business plan, a financial plan, and a marketing plan.
- describe the financing process and how to access capital.
- apply principles of management and marketing relevant to the small business.
- evaluate financial reports.
- analyze the impact of legal requirements and government regulations as related to the operation of the small business.

Career Information

This certificate prepares students for entry level employment in a wide variety of positions in the PV industry. It is also valuable for people working in the PV industry to upgrade their skills to include the newest advancements in solar technology. Career opportunities include PV system designers, PV systems outside sales, PV equipment and associated component sales representatives, and a variety of other emerging careers in this field.

Solar Energy Technology Certificate

This certificate provides training in all aspects of solar photovoltaic (PV) system design, installation, troubleshooting, and repair.

Certificate Requirements

Course Code	Course Title	Units
ENERGY 140	Electrical Applications for Solar Installers	3
ENERGY 141	Electrical & Mechanical Applications for Solar Installers	3
ENERGY 143	Solar Photovoltaic Systems Design, Installation, and Troubleshooting	4
ET 302	Principles of Electricity and Electronics	4
Total Units:		**14**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe the components in a complete grid-tie PV system.
- construct solar PV battery charging systems.
- analyze test equipment data to determine the location of the "sweet spot" on a solar PV panel's Current-Voltage (IV) curves.
- identify tools and test equipment necessary for solar PV panel installations.
- identify different sizes of wire according to American Wire Gauge (AWG) tables.
- construct a simulated roof system using industry standard building materials.
- calculate the amount of yearly solar radiance in relationship to shading using the Solmetric's SunEye predictor and software.
- inspect and repair malfunctioning components in a functioning grid-tie solar PV system.
- assess safety hazards in respect to fire, shock, and falls when installing or repairing PV systems.
- estimate PV system using both the SunEye and the Pathfinder sun angle and shade predictor.
- identify typical locations of electrical/mechanical failures in PV systems.
- calculate the correct gauge wire and number of wires in a metal raceway according to National Electrical Code standards.
- calculate the battery amperage required for a stand-alone PV system.

Career Information

This certificate prepares the student for entry level employment in a wide variety of positions in the PV industry. It is also valuable for people working in the PV industry to upgrade their skills to include the newest advancements in solar technology. Career opportunities include PV installers, PV service technicians, and other emerging careers in this field.

Certificate

Basic Solar Certificate

This certificate provides training in basic solar photovoltaic (PV) system design, installation, troubleshooting, and repair. to be used in remote telecommunication and industrial locations. Field trips may be required.

Certificate Requirements

Course Code	Course Title	Units
ENERGY 140	Electrical Applications for Solar Installers	3
ENERGY 141	Electrical & Mechanical Applications for Solar Installers	3
ET 302	Principles of Electricity and Electronics	4
Total Units:		**10**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- create simple electronic schematics using basic schematic symbols.
- apply electrical concepts to measure and evaluate resistance, capacitance, and inductive devices.
- compare and contrast series and parallel resistive, capacitance, and inductive circuits.
- describe the components in a grid-tie or battery PV system.
- assess safety hazards when working with PV systems.
- identify and employ common hand tools to construct a simulated roof structure and install a solar PV system.
- calculate the gauge wire and conduit size for a given solar PV panel array per National Electrical Code (NEC) standards.
- inspect and repair malfunctioning components in a solar PV system.
- evaluate different types of solar inverters and solar PV panels to determine which configurations would have the highest efficiency and most power output for a given situation.
- use industry software and measuring tools to determine solar PV panel string-size, yearly solar radiance, and yearly power output.

Career Information

This certificate prepares the student for electronic technician positions in industries that also include solar PV systems in remote locations such as the telecommunications industry.

Energy (ENERGY) Courses

ENERGY 140 Electrical Applications for Solar Installers

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Corequisite: ET 302

This is an introductory course in Solar Photovoltaic (PV) energy. It covers how solar PV energy works and how to assess if PV is feasible in a variety of situations. Topics include calculating and measuring PV power outputs for different conditions, using software tools and hardware for calculating and sizing PV systems, and measuring and analyzing shading conditions. Additionally, it addresses how to install and connect necessary components. Field trips may be required.

ENERGY 141 Electrical & Mechanical Applications for Solar Installers

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: ENERGY 140 with a grade of "C" or better

Corequisite: ET 302

This is an advanced course in Solar Photovoltaic (PV) energy. Topics include using hardware and software tools for shading and correct orientation of solar panels, the effect PV panel orientation has on system power output and efficiency, what effect optimum PV panel loading has on power produced, and how to perform a load analysis on a residence. Additionally, it covers the use of various manufacturers' software to calculate PV panel string sizing for optimum efficiency when working with grid-tie inverters. National Electrical Code (NEC) and fire code wire sizing, fusing, and other safety instructions and procedures are stressed. The successful completion of this course and ENERGY 142 qualify students to take the North American Board of Certified Energy Practitioners (NABCEP) Associate Achievement Exam leading to the NABCEP PV Installation Professional Certificate. Field trips may be required.

ENERGY 142 NABCEP Associate Certification Preparation

Units: 2

Hours: 36 hours LEC

Prerequisite: ENERGY 140 and 141 with grades of "C" or better

This advanced course in solar photovoltaic (PV) energy includes preparation for the North American Board of Certified Energy Practitioners (NABCEP) PV Associate Certificate of Knowledge Exam. Topics include hardware and software tools used for determining percent of shade, and orienting solar panels, the effect of PV panel orientation on system power and efficiency, and the load analysis. Additionally, it covers calculating PV panel string sizing when working with grid tie inverters as related to the NABCEP test. National Electrical Code (NEC) and fire code wire sizing, fusing, and other safety instructions and procedures are reviewed. The successful completion of this course and ENERGY 141 meets the requirements to take the NABCEP certified associate solar PV installers and service technicians entry level Certificate of Knowledge of PV systems test. Field trips may be required.

ENERGY 143 Solar Photovoltaic Systems Design, Installation, and Troubleshooting

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: ENERGY 141 with a grade of "C" or better

This advanced course in solar photovoltaic (PV) energy offers the opportunity for hands-on experience designing, installing, and troubleshooting grid-tie and stand-alone PV systems. Topics include hardware and software tools used in the solar PV industry, blueprint reading, calculating component size and capacity, and personal safety. Additionally, it covers calculating PV panel string sizing when working with grid-tie inverters and battery sizing when designing stand-alone PV systems. National Electrical Code (NEC) and fire code wire sizing, fusing, and other safety instructions and procedures are reviewed. Ten-hour Occupational Safety and Health Administration (OSHA) training is provided. Students must pay the OSHA required fee in order to obtain the OSHA safety card. Field trips may be required.

ENERGY 299 Experimental Offering in Energy

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

ENERGY 303 Energy and Sustainability

Same As: NATR 303

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra; AND NATR 300, or an equivalent transferable life science course; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L5

This course investigates fundamentals of energy and impacts of energy systems on society and the environment. It explores energy resources, efficiency, conservation, and emerging technologies. Specifically addressed are mechanics, advantages, disadvantages, and sustainability of current and future energy systems. This course also focuses on economic, cultural, political, and environmental aspects of energy production and consumption in the context of the built environment, transportation, food systems, manufacturing, and public services. Field trips may be required. This course is not open to students who have completed NATR 303 or ET 303.

Engineering

Overview

The Engineering program offers courses necessary to transfer to a four-year university where students can complete a bachelor’s degree in various branches of engineering.

Most lower division engineering programs require the following ARC courses: Mathematics 400, 401, 402, and 420; Physics 410, 421, and 431; Chemistry 400; and Engineering 401, 412, and 420. Students should consult the institution to which they wish to transfer for specific lower-division requirements.

ARC's program provides the foundation in mathematics, physics, and engineering necessary to transfer to a four-year institution and complete a bachelor's degree in engineering.

Degrees Offered

A.S. in Civil Engineering

A.S. in Electrical Engineering

A.S. in Mechanical Engineering

Dean: Joel Keebler

Phone: (916) 484-8107

Email: askhb-STEM@arc.losrios.edu

Associate Degrees

A.S. in Civil Engineering

This degree provides the foundation in mathematics, science, and engineering needed to transfer to a four-year institution as a major in civil engineering. The courses in this degree meet most of the lower division requirements for several nearby universities. Since each university has its own unique requirements, additional coursework will be required prior to transfer. Students should meet with a counselor to determine which additional courses are required for successful transfer to a particular institution.

Degree Requirements

Course Code	Course Title	Units
CHEM 400	General Chemistry I	5
ENGR 310	Engineering Survey Measurements (4)	4
or PHYS 431	Heat, Waves, Light and Modern Physics (4)	
ENGR 312	Engineering Graphics	3
ENGR 412	Properties of Materials	4
ENGR 420	Statics	3
MATH 400	Calculus I	5
MATH 401	Calculus II	5
MATH 402	Calculus III	5
MATH 420	Differential Equations	4
PHYS 410	Mechanics of Solids and Fluids	5
PHYS 421	Electricity and Magnetism	4
Total Units:		**47**

The Civil Engineering Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- solve problems by applying knowledge of mathematics, including differential and integral calculus and differential equations.
- solve problems by applying knowledge of science, including chemistry and physics.
- use technology to increase productivity.
- apply knowledge of mathematics, science, and engineering to identify, formulate, and solve basic civil engineering problems.
- describe the ethical and professional responsibilities of an engineer and situations where engineering solutions can impact society.

A.S. in Electrical Engineering

This degree provides the foundation in mathematics, science, and engineering needed to transfer to a four-year institution as a major in electrical engineering. The courses in this degree meet most of the lower division requirements for several nearby universities. Since each university has its own unique requirements, additional coursework will be required prior to transfer. Students should meet with a counselor to determine which additional courses are required for successful transfer to a particular institution.

Degree Requirements

Course Code	Course Title	Units
CHEM 400	General Chemistry I	5
ENGR 401	Introduction to Electrical Circuits and Devices	4
MATH 400	Calculus I	5
MATH 401	Calculus II	5
MATH 402	Calculus III	5
MATH 420	Differential Equations	4
PHYS 410	Mechanics of Solids and Fluids	5
PHYS 421	Electricity and Magnetism	4
Total Units:		**37**

The Electrical Engineering Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- solve problems by applying knowledge of mathematics, including differential and integral calculus and differential equations.
- solve problems by applying knowledge of science, including chemistry and physics.
- use technology to increase productivity.
- apply knowledge of mathematics, science, and engineering to identify, formulate, and solve basic electrical engineering problems.
- describe the ethical and professional responsibilities of an engineer and situations where solutions can impact society.

A.S. in Mechanical Engineering

This degree provides the foundation in mathematics, science, and engineering needed to transfer to a four-year institution as a major in mechanical engineering. The courses in this degree meet most of the lower division requirements for several nearby universities. Since each university has its own unique requirements, additional coursework will be required prior to transfer. Students should meet with a counselor to determine which additional courses are required for successful transfer to a particular institution.

Degree Requirements

Course Code	Course Title	Units
CHEM 400	General Chemistry I	5
ENGR 312	Engineering Graphics	3
ENGR 401	Introduction to Electrical Circuits and Devices	4
ENGR 412	Properties of Materials	4
ENGR 420	Statics	3
MATH 400	Calculus I	5
MATH 401	Calculus II	5
MATH 402	Calculus III	5
MATH 420	Differential Equations	4
PHYS 410	Mechanics of Solids and Fluids	5
PHYS 421	Electricity and Magnetism	4
Total Units:		**47**

The Mechanical Engineering Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- solve problems by applying knowledge of mathematics including differential and integral calculus and differential equations.
- solve problems by applying knowledge of science, including chemistry and physics.
- use technology to increase productivity.
- apply knowledge of mathematics, science, and engineering to identify, formulate, and solve basic mechanical engineering problems.
- describe the ethical and professional responsibilities of an engineer and situations where engineering solutions can impact society.

Engineering (ENGR) Courses

ENGR 41 Support for Circuits

Units: 0.5

Hours: 27 hours LAB

Prerequisite: None.

Corequisite: Concurrent enrollment in ENGR 401.

This course provides instruction and practice in the skills and strategies needed to succeed in ENGR 401 (Introduction to Electrical Circuits and Devices). Assignments are connected to the topics covered in ENGR 401, including AC and DC circuit analysis, equivalent circuits, and operational amplifiers. Students taking this course must be concurrently enrolled in ENGR 401. This course is graded Pass/No Pass.

ENGR 42 Support for Statics

Units: 0.5

Hours: 27 hours LAB

Prerequisite: None.

Corequisite: Concurrent enrollment in ENGR 420.

This course provides instruction and practice in the skills and strategies needed to succeed in ENGR 420 (Statics). Assignments are connected to the topics covered in ENGR 420, including the analysis of systems in equilibrium, rigid structures, and internal forces in cables and beams. Students taking this course must be concurrently enrolled in ENGR 420. This course is graded Pass/No Pass.

ENGR 300 Introduction to Engineering

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

This course is an introduction to the engineering and engineering technology professions, and their place in industry. It includes an explanation of the engineering and engineering technology options and curricula involved. Topics include an emphasis on problem-solving techniques used in engineering and engineering technology. This course is recommended for all entering engineering, engineering technology, and design technology students.

ENGR 310 Engineering Survey Measurements

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: MATH 373 or 375 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

C-ID: C-ID ENGR 180

This course covers the basic fundamentals of surveying for engineers. Electronic surveying instruments are used to develop the principles of measurement for distance, elevations, and angles. Additional topics include systematic and random errors, line directions, profiles and cross sections, traverse computations, horizontal and vertical curves, earthwork quantity calculations, and manual and CAD (computer-aided drafting) production of engineering plans. This course is intended for civil engineers, but may also be required for other programs.

ENGR 312 Engineering Graphics

Units: 3

Hours: 27 hours LEC; 81 hours LAB

Prerequisite: MATH 373 or 375 with a grade of "C" or better

Transferable: CSU; UC

C-ID: C-ID ENGR 150

This course covers the principles of engineering drawings in visually-communicated engineering designs and an introduction to computer-aided design (CAD). Topics include the development of visualization skills, orthographic projections, mechanical dimensioning and tolerancing practices, the engineering design process, and design analysis. Assignments develop sketching and 2D and 3D CAD skills. The use of solid modeling CAD software is an integral part of the course.

ENGR 401 Introduction to Electrical Circuits and Devices

Units: 4

Hours: 72 hours LEC

Prerequisite: PHYS 421 with a grade of "C" or better

Corequisite: MATH 420

Transferable: CSU; UC

C-ID: C-ID ENGR 260

This course covers the fundamentals of electrical circuit theory and analysis for engineers. Analysis of DC and AC circuits containing resistors, capacitors, inductors, dependent sources, operational amplifiers, and switches; natural and forced responses of first and second order RLC circuits; the use of phasors; AC power calculations; power transfer; and energy concepts.

ENGR 412 Properties of Materials

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: CHEM 400 and PHYS 410 with grades of "C" or better

Transferable: CSU; UC

C-ID: C-ID ENGR 140B

This course presents the internal structures and resulting behaviors of materials used in engineering applications, including metals, ceramics, polymers, composites, and semiconductors. It emphasizes developing the ability both to select appropriate materials to meet engineering design criteria and to understand the effects of heat, stress, imperfections, and chemical environments upon material properties and performance. Laboratories provide opportunities to directly observe the structures and behaviors discussed in the course, to operate testing equipment, and to analyze experimental data. This course was formerly known as ENGR 413.

ENGR 420 Statics

Units: 3

Hours: 54 hours LEC

Prerequisite: MATH 401 and PHYS 410 with grades of "C" or better

Transferable: CSU; UC

C-ID: C-ID ENGR 130

Fundamentals of engineering statics. Properties of forces, moments, couples and resultants; two- and three-dimensional force systems acting on engineering structures in equilibrium; analysis of trusses and beams; distributed forces, shear and bending moment diagrams, center of gravity, centroids, friction, and area and mass moments of inertia. Optional additional topics include fluid statics, cables, Mohr's circle and virtual work.

ENGR 495 Independent Studies in Engineering

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ENGR 499 Experimental Offering in Engineering

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

English

Overview

English at ARC is made up of five distinct and overlapping programs. We provide access to in-person, online, and hybrid instruction in creative writing, literature, education, reading, and writing courses. These courses will provide you with unique and meaningful ways to develop the skills that will help you meet your education and personal goals.

Degrees Offered

A.A.-T. in English

Dean: Carina Hoffpauir

Department Co-Chairs: Neue Leung
Janay Lovering

Phone: (916) 484-8101

Email: arc-eng-div@arc.losrios.edu

Associate Degree for Transfer

A.A.-T. in English

The Associate in Arts in English for Transfer (AA-T) provides students with a major that fulfills the general requirements of a California State University. Students with this degree will receive priority admission with junior status to the California State University system. All students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in English at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, §66746):

• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

All ADTs also require that students must earn a “C” or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
ENGL C1003	Critical Thinking and Writing through Literature	4[1]
List A:		
A minimum of 6 units from the following:		6
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 340	World Literature I (3)	
ENGLT 341	World Literature II (3)	
List B:		
A minimum of 6 units from the following:		6
Any course not already used from List A or		
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)	

Course Code	Course Title	Units
ENGLT 300	Introduction to Fiction (3)	
ENGLT 304	Introduction to Poetry (3)	
ENGLT 330	African American Literature (3)	
ENGLT 335	Latino, Mexican-American, and Chicano Literature (3)	
ENGLT 338	Native American Literature (3)	
ENGLT 345	Mythologies of the World (3)	
ENGLT 370	Children and Literature (3)	
ENGLT 378	Young Adult Literature (3)	
ENGLT 380	Introduction to Shakespeare (3)	
ENGLT 392	Science Fiction and Fantasy (3)	
ENGLT 403	Film Adaptations (3)	
ENGLT 486	Honors African American Literature (3)	
List C:		
A minimum of 3 units from the following:		3
Any course from List A or B not already used or		
Further Preparation in Literature and Creative Writing		
ENGCW 415	Comedy Writing Workshop (3)	
ENGCW 441	Feature Film Screenwriting Workshop I (3)	
ENGCW 450	College Literary Magazine (3)	
ENGLT 308	The Graphic Novel and Manga (3)	
ENGLT 327	Literature of California (3)	
ENGLT 334	Asian-American Literature (3)	
ENGLT 360	Women in Literature (3)	
ENGLT 365	Introduction to Gay, Lesbian, Bisexual and Transgender Literature (3)	
Languages and Linguistics		
ANTH 341	Introduction to Linguistics (3)	
DEAF 314	American Sign Language III (4)	
DEAF 316	American Sign Language IV (4)	
DEAF 318	American Sign Language V (4)	
GERM 401	Elementary German I (4)	
GERM 402	Elementary German II (4)	
GERM 411	Intermediate German (4)	
GERM 412	Intermediate German (4)	
ITAL 411	Intermediate Italian (4)	
ITAL 412	Intermediate Italian (4)	
RUSS 402	Elementary Russian (4)	
RUSS 411	Intermediate Russian (4)	
RUSS 412	Intermediate Russian (4)	
RUSS 413	Russian for Heritage Speakers I (4)	
RUSS 415	Russian for Heritage Speakers II (4)	
SPAN 402	Elementary Spanish II (4)	
SPAN 411	Intermediate Spanish (4)	
SPAN 412	Intermediate Spanish (4)	
SPAN 413	Spanish for Native Speakers I (4)	
SPAN 415	Spanish for Native Speakers II (4)	
SPAN 427	Introduction to Spanish American Literature (3)	
Expanding the Major		
JOUR 300	Newswriting and Reporting (3)	
BUS 310	Business Communications (3)	
TA 300	Introduction to the Theatre (3)	
Total Units:		**19**

[1]Or ENGL 301/481 and ENGL C1001/C1001H, in which case students will complete three (3) units from List B rather than six (6) units.

The Associate in Arts in English 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate literary texts for social, historical, cultural, psychological, philosophical, and aesthetic assumptions.
- analyze representations of gender identity and expression, sexual orientation, nationality, race, ethnicity, colonialism, social class, or physical ability.
- employ critical reasoning skills and terminology of literary critique to analyze complex texts.

- compose thesis-driven arguments to suit a variety of rhetorical situations, including interpretation, evaluation, and analysis.
- synthesize textual evidence, including primary and secondary sources, documenting sources for readers' needs.

English (ENGL) Courses

ENGL 94 Succeeding in Academic Reading and Writing

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Corequisite: Concurrent enrollment in ENGL C1000.

This course offers small- and large-group instruction on composition processes, writing and reading strategies, and critical thinking skills necessary for success in ENGL C1000 (formerly ENGWR 300). Assignments are connected to the students' ENGL C1000 coursework. It covers pre-writing, drafting, revision, and editing processes. Pass/No Pass only. This course was formerly known as ENGWR 94 and is not open to students who have successfully completed that course.

ENGL 95 Beginning Writing Across the Curriculum (WAC)

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

Advisory: BUSTEC 300.1 or CISC 300

This course offers both individualized and group instruction in appropriate writing processes and strategies for a variety of basic written assignments in all academic disciplines. Topics include understanding writing assignments, strategies for revision, and proofreading. Pass/No Pass only. This course was formerly known as ENGWR 95 and is not open to students who have successfully completed that course.

ENGL 96 Intermediate Writing Across the Curriculum (WAC)

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

Advisory: BUSTEC 300.1 or CISC 300

This course offers both individualized and group instruction in appropriate writing processes and strategies for a variety of college-level writing assignments in all academic disciplines. Topics include understanding writing assignments, strategies for revision, and basic documentation. Pass/No Pass only. This course was formerly known as ENGWR 96 and is not open to students who have successfully completed that course.

ENGL 299 Experimental Offering in English

Units: 0.5 - 4

Prerequisite: None.

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ENGL 301 College Composition and Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: ENGL C1000 or C1000H with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L1B; Local GE L3; Cal-GETC Area 1B; Cal-GETC Area 3B

C-ID: C-ID ENGL 120

This course offers study of literary texts, with emphasis on analytical reading and writing. It covers principles of argument and analysis, such as reasoning inductively and deductively. Assigned texts include novels, short stories, poems, plays or films, and literary criticism. Writing assignments (5,000 words minimum) emphasize close reading skills, interpretation and analysis of creative works. At least one essay includes citations from secondary sources, documented in current MLA format. This course was formerly known as ENGWR 301 is not open to students who have successfully completed that course or its Honors equivalent ENGL/ENGWR 481.

ENGL 306 Advanced Writing Across the Curriculum (WAC)

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

Transferable: CSU

This course offers individualized and small-group instruction focused on helping students from all academic disciplines apply appropriate writing processes and use transfer-level writing strategies required for academic composition. Topics

vary according to need and may include the principles of the writing process, analysis of writing assignments, strategies for revision, and research and documentation skills. In order to take this course, students must be enrolled in at least one other transfer-level course. Pass/No Pass only. This course was formerly known as ENGWR 306 and is not open to students who have successfully completed that course.

ENGL 362 Writing in the Disciplines: Composing Essays

Units: 0.5 - 1

Hours: 9 - 18 hours LEC

Prerequisite: None.

Transferable: CSU

This course offers instruction on the writing processes and writing strategies necessary to compose academic essays. It includes an examination of the rationale for using a process-based approach to writing as well as specific writing strategies for prewriting, conducting and using research, drafting, revising, editing, and composing metacognitive reflections. This course was formerly known as ENGWR 362 and is not open to students who have successfully completed that course.

ENGL 481 Honors College Composition and Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: ENGL C1000 or C1000H with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L1B; Local GE L3; Cal-GETC Area 1B

C-ID: C-ID ENGL 120

This course is an advanced seminar in critical reading and writing about literature. Focused on complex, in-depth reading assignments, it develops the analytic skills needed to examine fiction, poetry, and drama, expanding on those covered in a traditional ENGL 301 course. The course includes culturally responsive texts representing diverse perspectives and cultures. It covers inductive and deductive reasoning about literature and the written analysis of literature, requiring at least 6,500 words of formal, analytical writing. This course also examines literary theory and research, the use of primary and secondary sources, and MLA documentation. This course was formerly known as ENGWR 481 is not open to students who have successfully completed that course or its non-Honors equivalent ENGL/ENGWR 301.

ENGL 495 Independent Studies in English

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed. This course was formerly known as ENGWR 495 and is not open to students who have successfully completed that course.

ENGL 499 Experimental Offering in English

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

ENGL C1000 Academic Reading and Writing

Units: 3

Hours: 54 hours LEC

Prerequisite: Placement as determined by the college's multiple measures assessment process

Advisory: Concurrent enrollment in ENGRD 315.

Transferable: CSU; UC (UC credit limitation: ENGL C1000, ENGL C1000H and ESLW 340 combined: maximum credit, 3 units)

General Education: Local GE L1A; Cal-GETC Area 1A

C-ID: C-ID ENGL 100

This course was formerly known as ENGWR 300 College Composition.

In this course, students receive instruction in academic reading and writing, including writing processes, effective use of language, analytical thinking, and the foundations of academic research. Students develop audience awareness, individual writing voices, and synthesis and critical thinking skills essential for successful completion

of a college program through a variety of written assignments (5000 words). The course emphasizes workshop, collaboration, and reflection on the writer's process. This course was formerly known as ENGWR 300 and is not open to students who have successfully completed ENGWR 300, ENGWR 480, or ENGL C1000H. Students may satisfy the prerequisite for the course through the Los Rios placement process OR guided self-placement OR successful completion of ESL 325.

ENGL C1001 Critical Thinking and Writing

Units: 3

Hours: 54 hours LEC

Prerequisite: College-level composition (ENGL C1000/ ENGL C1000H/ENGL C1000E/C-ID ENGL 100) or equivalent

Advisory: Concurrent enrollment in ENGRD 315.

Transferable: CSU; UC

General Education: Local GE L1B; Cal-GETC Area 1B

C-ID: C-ID ENGL 105

This course was formerly known as ENGWR 302 Advanced Composition and Critical Thinking.

In this course, students receive instruction in critical thinking for purposes of constructing,
evaluating, and composing arguments in a variety of rhetorical forms, using primarily non-fiction
texts, refining writing skills and research strategies developed in ENGL C1000 Academic Reading and
Writing (C-ID ENGL 100) or similar first-year college writing course. Students examine methods by which people are persuaded to think, believe, and/or act by exploring the relationship between language and logic. Students also identify cognitive biases and common fallacies of language and thought in order to craft traditional and/or multimodal arguments in context of current social, economic, political, and environmental discourse. This course includes writing a minimum of 5,000 words. This course was formerly known as ENGWR 302 and is not open to students who have successfully completed ENGWR 302, ENGWR 482, or ENGL C1001H. Students may satisfy the prerequisite for the course through successful completion of ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340.

ENGL C1003 Critical Thinking and Writing through Literature

Units: 4

Hours: 72 hours LEC

Prerequisite: Successful completion of college-level composition (ENGL C1000/ENGL C1000H/ENGL C1000E/C-ID ENGL 100) or equivalent.

Transferable: CSU; UC

General Education: Local GE L1B; Local GE L3; Cal-GETC Area 1B

C-ID: C-ID ENGL 105; C-ID ENGL 110; C-ID ENGL 120

This course was formerly known as ENGWR 303 Argumentative Writing and Critical Thinking Through Literature.

In this course, students receive instruction in analytical, critical, and argumentative writing. Students develop critical thinking, close reading and literary analysis skills, research strategies, information literacy, and knowledge of accurate documentation through the study of diverse literary works from a variety of literary genres, developing an appreciation for literature. This course includes an introduction to literary theory and emphasizes the conscious inclusion of writers representing Black, African American, Latinx, Native American, Asian American and Pacific Islander, and LGBTQIA+ communities. This course was formerly known as ENGWR 303 and is not open to students who have successfully completed ENGWR 303. Students may satisfy the prerequisite for the course through successful completion of ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340.

ENGL C1000H Academic Reading and Writing - Honors

Units: 3

Hours: 54 hours LEC

Prerequisite: Placement as determined by the college's multiple measures assessment process

Advisory: LIBR 318 with a grade of "C" or better

Transferable: CSU; UC (UC credit limitation: ENGL C1000, ENGL C1000H and ESLW 340 combined: maximum credit, 3 units)

General Education: Local GE L1A; Cal-GETC Area 1A

C-ID: C-ID ENGL 100

This course was formerly known as ENGWR 480 Honors College Composition.

In this course, students receive instruction in academic reading and writing, including writing
processes, effective use of language, analytical thinking, and the foundations of academic research.
This is an honors course. This Honors writing course focuses on reading, writing, and critical thinking skills that extend past those developed in a traditional writing course. This rigorous course requires the analysis of complex short works along with at least one full-length volume of non-fiction. It emphasizes the writing of carefully reasoned, stylistically sophisticated essays, at least one of which includes research and appropriate documentation. Written work should demonstrate a nuanced

understanding of writing situation and purpose. The course also emphasizes presentation of independent and collaborative research. Essays written in this course will total at least 6,500 words. This course was formerly known as ENGWR 480 and is not open to students who have successfully completed ENGWR 300, ENGWR 480, or ENGL C1000. Students may satisfy the prerequisite for the course through the Los Rios placement process OR guided self-placement OR successful completion of ESL 325.

ENGL C1001H Critical Thinking and Writing - Honors

Units: 3

Hours: 54 hours LEC

Prerequisite: College-level composition (ENGL C1000/ ENGL C1000H/ENGL C1000E/C-ID ENGL 100) or equivalent

Advisory: LIBR 318 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L1B; Cal-GETC Area 1B

C-ID: C-ID ENGL 105

This course was formerly known as ENGWR 482 Honors Advanced Composition and Critical Thinking.

In this course, students receive instruction in critical thinking for purposes of constructing,
evaluating, and composing arguments in a variety of rhetorical forms, using primarily non-fiction
texts, refining writing skills and research strategies developed in ENGL C1000 Academic Reading and
Writing (C-ID ENGL 100) or similar first-year college writing course. This is an honors course. Students in this Honors course strengthen skills that extend beyond a traditional ENGL C1001 course. Students read, discuss, and analyze complex texts (including book-length works) reflecting a variety of social, cultural, and historical contexts. A minimum of 6,500 words of writing is required for the course, as are group and individual presentations. This course was formerly known as ENGWR 482 and is not open to students who have successfully completed ENGWR 302, ENGWR 482, or ENGL C1001. Students may satisfy the prerequisite for the course through successful completion of ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340.

English - Creative Writing (ENGCW) Courses

ENGCW 400 Creative Writing

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

C-ID: C-ID ENGL 200

This introductory creative writing course provides writing experience with three or four of the following genres: short story, poetry, creative nonfiction, and script writing for theater or film. In addition, it covers the relationship between cultural events and literary conventions and to do so with an awareness of literature's role in culture, emphasizing diverse experiences and perspectives. This course includes analysis of literary models from diverse cultures, faculty and class critiques of texts, and discussion of literary techniques, such as voice, metaphor, imagery, dialogue, and narrative in each covered genre. This course encourages students to develop an original voice, reflecting their unique backgrounds and experiences.

ENGCW 410 Fiction Writing Workshop

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

This creative writing course employs a variety of fiction techniques--including plot, character, imagery, and dialogue--to develop stories that reflect one's unique backgrounds and experiences. In addition to introducing revision and editing processes, it examines published fiction from diverse cultures and communities.

ENGCW 415 Comedy Writing Workshop

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

This creative writing course concentrates on comedy writing, including the analysis of work written during the semester. Topics include the examination of stand-up comedy, comedic sketches, and satirical essays as well as idea generation and revising and editing processes. A portfolio/presentation of original work and a conference with the instructor are required.

ENGCW 420 Poetry Writing Workshop

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

This creative writing course focuses on poetry, emphasizing the development of a personal voice while also introducing the skills to analyze and appreciate the wide range of styles in contemporary poetry. This course examines literary styles and elements in traditional and contemporary poetry and offers practice in revision and in giving constructive critiques. In addition, it provides contexts to analyze the relationship between culture and literature, with an emphasis on understanding multicultural experiences and perspectives.

ENGCW 430 Creative Non-Fiction Writing Workshop

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3

This creative writing course concentrates on the literary essay and explores the factual and experiential sources of creative non-fiction. It covers the writing of various kinds of essays, such as memoir, autobiography, personal essays, reflective nature writing, prose with poetic elements (prose-poetry), and fact-based or philosophical writing with a definite literary, stylistic component. Course readings include one full-length work of creative non-fiction. Topics in this course also include analysis of classical and modern essays for elements such as voice, point of view, and structure. Additional topics will include the relationship between cultural events and literary conventions and an awareness of literature's role in culture, emphasizing diverse experiences and perspectives.

ENGCW 441 Feature Film Screenwriting Workshop I

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Advisory: ENGCW 400

Transferable: CSU; UC

This course introduces the writing of feature-length film scripts. It requires three proposals for projects, one of which is developed through the first act in official screen format, plus scene descriptions for major scenes, character sketches, and plot outlines. Several classic feature films and/or scripts are analyzed for their writing strengths.

ENGCW 450 College Literary Magazine

Units: 3

Hours: 54 hours LEC; 18 hours LAB

Prerequisite: ENGL C1000 with a grade of "C" or better

Advisory: ENGCW 400, 410, 420, or 430

Transferable: CSU

This course provides instruction and editorial staff experience in producing the college literary and fine arts magazine, American River Review. The course focuses on the selection and editing of literary content on publicity, marketing, fundraising, and distribution of the magazine. Students will learn the editorial process and select and edit manuscripts in the genres of poetry, short fiction, and creative non-fiction. Students publish the American River Review annually. The American River Review regularly competes with other college literary magazines.

ENGCW 495 Independent Studies in English - Creative Writing

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ENGCW 499 Experimental Offering in English - Creative Writing

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

English - Education (ENGED) Courses

ENGED 305 Structure of English

Units: 3

Hours: 54 hours LEC

Prerequisite: ENGL C1000 or C1000H with a grade of "C" or better

Transferable: CSU; UC

This course examines the structure of English grammar systems. It includes the study and practice of traditional and transformational grammars in standardized usage, especially as they relate to written language. It will examine the history and nature of the English language as it relates to language acquisition and development, apply grammatical concepts as they meet the 2,000-word writing requirement, and investigate equity issues and power imbalances connected to teaching English in culturally and linguistically diverse communities.

It is designed for those who plan to teach or who are especially interested in grammar as it relates to writing.

ENGED 320 Tutoring Elementary Students in Reading

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: In order to participate in the fieldwork portion of the course, students will need to complete any clearance processes required by the cooperating school's policies. These may include but are not limited to: fingerprinting, background checks, and vaccinations.

Advisory: ENGL C1000 with a grade of "C" or better

Transferable: CSU

General Education: Local GE L7B

This course provides an opportunity to learn and practice basic methods of tutoring elementary school children in reading. Course content provides theoretical and foundational knowledge of reading skills development, tutoring, and instruction, including initial tutor preparation at the start of the semester. Students in the course will partner with elementary school students for in-depth practice tutoring with supervision where they can integrate and apply course content.

This course can meet the field experience requirement for teacher preparation programs.

ENGED 324 Introduction to Elementary Teaching with Field Experience

Same As: ECE 350

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: In order to participate in the fieldwork portion of the course, students will need to complete any clearance processes required by the cooperating school's policies. These may include but are not limited to: fingerprinting, background checks, and vaccinations.

Advisory: ECE 312 or PSYC 372

Transferable: CSU; UC

General Education: Local GE L7B

C-ID: C-ID EDUC 200

This course provides students an opportunity to explore the field of elementary education, Kindergarten through grade 12 (K-12), through investigation of topics relevant to teaching diverse learners and fieldwork in an elementary school setting. Course content provides theoretical and foundational knowledge while fieldwork experiences allow students to integrate and apply course content.

This course is not open to students who have completed ECE 350.

ENGED 325 Introduction to Middle and High School Teaching with Field Experience

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: In order to participate in the fieldwork portion of the course, students will need to complete any clearance processes required by the cooperating school's policies. These may include but are not limited to: fingerprinting, background checks, and vaccinations.

Advisory: ECE 312 or PSYC 372

Transferable: CSU; UC

General Education: Local GE L7B

This course provides students an opportunity to explore the field of middle and high school education, grades 6-12, through investigation of topics relevant to teaching diverse learners and fieldwork in a middle or high school setting. Course content provides theoretical and foundational knowledge while fieldwork experiences allow students to integrate and apply course content.

ENGED 495 Independent Studies in English - Education

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ENGED 499 Experimental Offering in English - Education

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

English - Laboratory (ENGLB) Courses

ENGLB 299 Experimental Offering in English - Laboratory

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

ENGLB 499 Experimental Offering in English - Laboratory

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

English - Literature (ENGLT) Courses

ENGLT 300 Introduction to Fiction

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course covers the study of fiction as a type of literature. It typically examines at least twenty short stories and at least three novels, critically analyzing plot, setting, character, theme, and style. This course includes fiction written in English, as well as fiction in translation.

ENGLT 304 Introduction to Poetry

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course introduces the art of poetry. It includes the analysis and appreciation of poetry as a type of literature with careful attention to the elements of poetics, the various styles of poetry, and major poets and poetic movements. Poetic theories and poems by a wide variety of traditional and contemporary poets as well as poetic theory are examined.

ENGLT 308 The Graphic Novel and Manga

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course critically examines graphic novels and manga. It explores the social, cultural, and historical contexts reflected in these mixed-media genres, analyzing thematic, character, and

structural development and exploring the relationship of image and text in this development. This course typically includes at least five full-length works as well as numerous background readings.

ENGLT 310 English Literature I

Units: 3

Hours: 54 hours LEC

Prerequisite: ENGL C1000 or C1000H with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID ENGL 160

This course surveys representative works in English literature from the Anglo-Saxon period through the eighteenth century. It traces the development of medieval, Renaissance, and Restoration prose, poetry, and drama, introducing methods of literary analysis and research. Historical movements and the cultural contexts of particular works and authors are also covered. Whenever possible, works are read in their entirety.

ENGLT 311 English Literature II

Units: 3

Hours: 54 hours LEC

Prerequisite: ENGL C1000 or C1000H with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID ENGL 165

This course is a survey of representative works in English literature from the late eighteenth century through the present, covering the Romantic, Victorian, modernist, and postmodern periods. Prose, poetry, and drama are represented, and whenever possible, works are read in their entirety.

ENGLT 320 American Literature I

Units: 3

Hours: 54 hours LEC

Prerequisite: ENGL C1000 or C1000H with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID ENGL 130

This course surveys the literatures of early America from the beginnings to 1865. It examines writing as a device to reflect and create a rapidly changing world, including colonial expansion and enslavement. Readings from a wide variety of texts and discussion highlight the multicultural and multilingual nature of early American literatures and societies. Whenever possible, texts are read in their entirety.

ENGLT 321 American Literature II

Units: 3

Hours: 54 hours LEC

Prerequisite: ENGL C1000 and C1000H with grades of "C" or better

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID ENGL 135

This course surveys representative American literature from the post-Civil War period until the present, with consideration of important aspects of American literary history. Readings--from a variety of stories, novels, plays, and poetry--and discussion highlight the multicultural nature of American literature and society.

ENGLT 327 Literature of California

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course examines the literature of California in the context of its ethnic, social, political, geographical, and intellectual history. It covers a wide range of multi-ethnic, multicultural, and cross-cultural literature (fiction, non-fiction, poetry, memoirs, essays, and films), such as Native American legends, early California exploration accounts, prose and poetry from the California heartland, and Hollywood crime fiction, with emphasis on what makes the California experience unique.

ENGLT 330 African American Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course is a survey of representative African American writers, spanning from the narratives of the enslaved to present-day literature. This comprehensive literary study includes analysis of significant historical and cultural influences as well as critical approaches in a variety of literary genres. This course is not open to students who have completed ENGLT 486.

ENGLT 334 Asian-American Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course surveys fiction, drama, poetry, memoirs, and creative nonfiction written by Asian Americans. It focuses on works written by Americans of Chinese, Filipino, Japanese, Hmong, Korean, and Vietnamese descent but also includes the work of other Pan-Asian American writers. This course explores the diaspora and ways in which the experience of being Asian in America has shaped the literature and examine the differences and similarities of these experiences across cultures, generations, genders, and sexuality. Optional field trips may be included.

ENGLT 335 Latino, Mexican-American, and Chicano Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course explores literature (poetry, short stories, novels, creative nonfiction, and performance) authored by Latino 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 338 Native American Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course examines a range of Native American perspectives as expressed through autobiography, fiction, poetry, and drama. Emphasis is placed on Native authorship. The literature highlights the survival strategies of indigenous cultures in the face of historical and present day colonization. This course examines how Native literature is a reflection of the social and cultural movements that have shaped, been shaped by, and interacted with the Native community. Included are samples of Native literary voices from North, South, and Central America. Field trips may be required.

ENGLT 340 World Literature I

Units: 3

Hours: 54 hours LEC

Prerequisite: ENGL C1000 or C1000H with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID ENGL 140

This course surveys world literature in translation from antiquity through the early seventeenth century. Ancient world cultures and historical movements are introduced, along with methods of literary analysis and research. The entire range of genres is represented and, whenever possible, works are read in their entirety.

ENGLT 341 World Literature II

Units: 3

Hours: 54 hours LEC

Prerequisite: ENGL C1000 or C1000H with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID ENGL 145

This course surveys world literature in translation from the late seventeenth century to the present. Historical movements and methods of literary analysis and research will be explored. The entire range of genres is represented, and, whenever possible, works are read in their entirety.

ENGLT 345 Mythologies of the World

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course of mythic literature introduces characters and themes in stories from world literature: creation stories, heroic journeys, and moments of transcendent transformation. It explores the timeless metaphors of these stories, metaphors which continue to not only influence characters and stories in modern literature, but also captivate contemporary readers.

ENGLT 360 Women in Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course examines women as both creators of and characters in literature. It includes reading and analyzing literature from a broad range of periods, genres, and cultures. Works by both men and women are included, with emphasis on works written by women and the social and cultural contexts that produced those works.

ENGLT 365 Introduction to Gay, Lesbian, Bisexual and Transgender Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

This course surveys representative literature concerning gay, lesbian, bisexual, transgender, and queer or questioning (GLBTQ) themes and issues as written by or about GLBTQ people from throughout its literary history to the present day. The comprehensive literary study includes analysis of significant historical and cultural influences.

ENGLT 370 Children and Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L3

C-ID: C-ID ENGL 180

This course is a survey of high-quality literature, past and present, created for children (ages 0-12), and of the criteria for selecting, evaluating, and discussing children's literature. It includes discussion of the history of children's literature and current issues such as censorship, literacy, multiculturalism, and diversity. This course is intended for prospective teachers, early childhood education (ECE) majors, librarians, parents, those interested in writing or publishing children's books, and those who enjoy children's literature. It includes reading to children.

ENGLT 378 Young Adult Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID ENGL 180

This course presents an overview of young adult literature (ages 12-18) and is designed to incorporate the ever-changing nature of this genre. The literature addressed reflects themes of interest to young people. Topics include a review of the history of young adult literature, readings of contemporary award-winning young adult literature, as well as a look at some of the classics from the past. Censorship concerns and culturally diverse selections also form a core part of the course. This course includes an analysis of literary elements, an examination of an author's style and content, and reflection on what makes a piece of literature a classic.

ENGLT 380 Introduction to Shakespeare

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course provides an introduction to Shakespeare's works. Six to ten plays, representing the range of Shakespeare's achievement, are covered. Topics include strategies for reading Shakespeare's English, exploration of dramatic genres, and contemporary approaches to interpreting the plays. Viewing of live Shakespearean performances may be required.

ENGLT 382 Introduction to Dramatic Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course introduces drama as a type of literature. Plays from various historical periods and cultures are covered, with an emphasis on the analysis of plot, characterization, setting, theme, and other literary elements of drama. Viewing of a live theater production may be required.

ENGLT 392 Science Fiction and Fantasy

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course explores the literature of science fiction and fantasy. It includes an exploration of the roots of these genres—the fantastic, the Gothic, terror and horror—and the development of their diverse contemporary forms. Texts may include selections from television, film, anime, short stories, and novels.

ENGLT 403 Film Adaptations

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course examines the processes, problems, and successes of adapting literary, stage, and previous film material into films. It discusses faithful and unfaithful adaptations through reading the original texts and viewing the adapted films with an awareness of their historical and cultural contexts. This course analyzes intention, creative distinctions, and the limits and strengths of each medium.

ENGLT 486 Honors African American Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Enrollment Limitation: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course is an advanced seminar on African American literature, spanning from the narratives of the enslaved to present-day literature. This comprehensive literary study includes analysis of significant historical and cultural influences as well as critical approaches in a variety of literary genres. In comparison to ENGLT 330, this honors course uses instructional methodology designed to challenge motivated students and cultivate advanced critical thinking skills. Instruction emphasizes critical thinking in a seminar style, where the focus is on analysis and evaluation of literature and literary theories. Honors students will also develop proficiency in library and internet-based research, make oral and written presentations, and participate in student-led group discussions. An MLA style research paper is also required. This course is not open to students who have completed ENGLT 330.

ENGLT 494 Topics in Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: ENGL C1000 or C1000H with a grade of "C" or better

Transferable: CSU

This is a literature course to be scheduled as needed under a title describing specific content. It provides the opportunity to focus on an in-depth study of specific literary subjects or genres. The course offers an extensive study of works by significant writers of literature defined by theme, region, vocation, or human experiences. Possible titles include Retelling Stories or Literature of War.

ENGLT 495 Independent Studies in Literature

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ENGLT 499 Experimental Offering in Literature

Units: 0.5 - 4

Hours: 18 hours LEC

Prerequisite: ENGL C1000 with a grade of "C" or better

Transferable: CSU

This course will provide a study of a concentrated area of literature. For example, courses might be offered in a particular genre (for example, the sonnet or the fairy tale), author, literary period (for example, the Harlem Renaissance), or theme (for example, The Monster in Literature). Individual course descriptions are provided in the class schedule.

English - Reading (ENGRD) Courses

ENGRD 111 Reading Across the Disciplines: Academic and Professional Development

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

Corequisite: Enrollment in a below transfer-level course.

This Reading Across the Disciplines (RAD) course offers reading skills to students as they apply to various below transfer-level courses. Topics include annotating, vocabulary development, schema building, and other strategies to increase reading focus and retention. Pass/No Pass only.

ENGRD 310 Critical Reading as Critical Thinking

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Concurrent enrollment in for ENGL C1000 (formerly ENGWR 300).

Transferable: CSU

General Education: Local GE L1B

This course covers the theory and practice of critical and speed reading skills needed for successful academic performance with an emphasis on the following: (1) critical and analytical evaluation of college-level expository and argumentative essays, (2) development of flexible reading rate and speed, (3) critical analysis and evaluation of independent research, (4) vocabulary development, and (5) application of these skills to multicultural essays, journals, fiction, and nonfiction reading.

ENGRD 312 Academic Texts and the Self

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course focuses on the relationship between individuals and various academic texts as a tool for improving reading self awareness, overall retention, and learning. Reading strategies for analyzing authors' intended purposes and individual reader's responses will be discussed as well as how life experience, cultural differences, and discipline-specific communication all play a part in the understanding and processing of academic texts across the disciplines.

ENGRD 314 Reading Across the Disciplines: Speed Reading

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Transferable: CSU

This course offers reading skills to transfer-level students as applied to various content-area courses. Topics include the following: assessing the reading process and material to employ appropriate strategies to meet the purpose for reading; utilizing one's reading rates and styles based on purpose and material; utilizing college-level, discipline-based vocabulary; and mastering the skills needed to critically read and analyze current and future transfer-level course texts. Pass/No Pass only.

ENGRD 315 Reading Across the Disciplines for Content Courses

Units: 0.5 - 1

Hours: 9 - 18 hours LEC

Prerequisite: None.

Transferable: CSU

This course offers individualized or small-group sessions to help students improve academic performance. Topics include the principles of the reading process, analysis of discipline-specific reading assignments, strategies for test taking, and research strategies particular to the chosen discipline. All strategies are applied to a course of the student's choosing. Students should contact the RAD Center before enrolling. Pass/No Pass only.

ENGRD 316 Reading Across the Disciplines for Content Courses II

Units: 0.5

Hours: 9 hours LEC

Prerequisite: ENGRD 315

Transferable: CSU

This course offers individualized or small-group sessions to help students who have already completed ENGRD 315 to improve academic performance. It focuses on application of inferential and critical reading strategies and study skills to specific content courses and programs. Topics include learning style assessment, how to implement appropriate reading strategies, and how to choose the best study methods. Students should contact the RAD Center before enrolling. Pass/No Pass only.

ENGRD 495 Independent Studies in English - Reading

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in Reading, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in Reading and secure approval. Only one independent study for each catalog course will be allowed.

ENGRD 499 Experimental Offering in English - Reading

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

English Course Sequence

English Composition Classes

Path 1: Academic Reading and Writing – ENGL C1000 Placement (formerly ENGWR 300 Placement)

First Semester

Enroll in *one* of the following:

- **ENGL C1000: Academic Reading and Writing**
- **ENGL C1000H: Academic Reading and Writing - Honors**

Notes

Both courses satisfy local AA/AS and Cal-GETC 1A requirements. Each course is three (3) units.

Any student eligible for the ENGL C1000 course is also eligible for the Honors version. Students taking ENGL C1000H can work to earn the ARC Honors Transfer Certificate Program.

If you have previously taken and passed ENGWR 300, you do not need to take ENGL C1000/C1000H.

Second Semester

Enroll in *one* of the following:

- **ENGL C1001: Writing and Critical Thinking**
- **ENGL C1001H: Writing and Critical Thinking - Honors**
- **ENGL 301: College Composition and Literature**
- **ENGL C1003: Critical Thinking and Writing Through Literature**
- **ENGL 481: Honors College Composition and Literature**

Notes

These courses meet local AA/AS and Cal-GETC 1B requirements.

These courses are part of several local and transfer degrees, including the English AA-T.

Some students benefit from completing both ENGL C1001/C1001H and ENGL 301/481. Please see a counselor to find out if this applies to your major or transfer goal.

Students taking ENGL C1001H or ENGL 481 can work to earn the ARC Honors Transfer Certificate Program.

If you have previously taken and passed ENGWR 302/482, you do not need to take ENGL C1001/C1001H.

Path 2: Academic Reading and Writing with Support – ENGL 94/ENGL C1000 Combo Placement (formerly ENGRW 94/ENGWR 300 Combo Placement)

First Semester

Students take a combination of courses designed to ensure their success. Enroll in *both* of the following:

- **ENGL C1000: Academic Reading and Writing** (a transfer-level writing class)
- **ENGL 94: Succeeding in College Composition** (a support class designed to help you succeed in the core transfer-level class).

Notes

Each ENGL 94 has its own required section of ENGL C1000.

The ENGL C1000 course satisfies local AA/AS and Cal-GETC 1A requirements. The two-course combo is five (5) units, with ENGL 94 providing two (2) units and ENGL C1000 providing three (3) units.

If you have previously taken and passed ENGWR 300, you do not need to take ENGL C1000.

Second Semester

Enroll in *one* of the following:

- **ENGL C1001: Writing and Critical Thinking**
- **ENGL C1001H: Writing and Critical Thinking - Honors**
- **ENGL 301: College Composition and Literature**
- **ENGL C1003: Critical Thinking and Writing Through Literature**
- **ENGL 481: Honors College Composition and Literature**

Notes

These courses meet local AA/AS and Cal-GETC 1B requirements.

These courses are part of several local and transfer degrees, including the English AA-T.

Some students benefit from completing both ENGL C1001/C1001H and ENGL 301/481. Please see a counselor to find out if this applies to your major or transfer goal.

Students taking ENGL C1001H or ENGL 481 can work to earn the ARC Honors Transfer Certificate Program.

If you have previously taken and passed ENGWR 302/482, you do not need to take ENGL C1001/C1001H.

English as a Second Language

Overview

American River College offers courses in English as a Second Language (ESL) that are designed exclusively to provide non-native speakers of English with a command of the language necessary to pursue career, transfer, and degree goals. Students whose native language is English but who need help with language fundamentals should seek courses offered in the English Department.

We offer over 75 sections at seven different levels, from novice to advanced. There are five different types of courses:

- ESL (integrated Reading and Writing courses)
- ESLG (Grammar courses)
- ESLL (Listening and Speaking courses)
- ESLLAB (ESL assistance and courses in the ESL Center)
- ESLW (Writing)

Certificates Offered

Advanced Proficiency Certificate in English as a Second Language Certificate

Advanced-High Certificate in English as a Second Language Certificate

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Business Technology Certificate

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Computer Info Science Certificate

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Culinary Arts Certificate

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Early Childhood Education Certificate

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Health Sciences Certificate

Intermediate-High Proficiency in English as a Second Language Certificate

Intermediate-Low Proficiency in English as a Second Language Certificate

Intermediate-Mid Proficiency in English as a Second Language Certificate

Dean: Rocio Owens

Department Chair: Patrick Hoggan

Phone: (916) 484-8653

Email: askhb-LAC@arc.losrios.edu

Certificates of Achievement

Advanced Proficiency Certificate in English as a Second Language Certificate

The Advanced Proficiency Program recognizes attainment of English language abilities at an advanced level of English in listening, speaking, reading, writing, and grammar skills. It is suitable for use in academic classes at the community college level as well as in the workplace community.

Certificate Requirements

Course Code	Course Title	Units
ESL 325	Advanced-Low Integrated Reading and Writing	6
ESLG 320	Advanced-Low Grammar	3
ESLL 320	Advanced-Low Listening and Speaking	3
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- write and edit clear, well-developed, and soundly structured essays on academic topics.
- summarize, paraphrase, and quote readings to integrate outside sources into writing.
- apply and adapt appropriate reading strategies in order to critique complex, college-length texts for reliability and credibility.
- compile accurate notes while listening to lectures and presentations.
- formulate and use a variety of interactive speaking strategies effectively such as clarification, polite interruption, and agreement/disagreement strategies using clear and comprehensible pronunciation.
- demonstrate mastery of verb tenses and modal auxiliary uses.
- combine sentences, with emphasis on the ability to recognize, contrast, and analyze subordination and coordination.

Advanced-High Certificate in English as a Second Language Certificate

This certificate recognizes attainment of English language abilities to an advanced-high level of English in listening, speaking, reading, writing, and grammar skills. It is suitable for use in academic classes at the community college level as well as in the workplace.

Certificate Requirements

Course Code	Course Title	Units
ESLW 340	Advanced Composition	4[1]
A minimum of 12 units from the following:		12
ESL 325	Advanced-Low Integrated Reading and Writing (6)	
ESL 350	Critical Reading, Research and Writing Through Literature (4)	
ESLG 320	Advanced-Low Grammar (3)	
ESLL 320	Advanced-Low Listening and Speaking (3)	
Total Units:		**16**

[1]*ENGL C1000 may be substituted for ESLW 340

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate comprehension of written and spoken English at an advanced-high level.
- produce written and spoken English at an advanced-high level.
- appraise texts and use appropriate reading strategies and reading rate effectively across a full range of reading tasks.
- comprehend a variety of complex fiction and nonfiction reading selections.
- analyze fiction and nonfiction readings for structure, audience, author intent and bias, main ideas, and literary and rhetorical devices.
- demonstrate advanced comprehension of fiction and nonfiction texts by composing written responses.
- evaluate arguments in nonfiction expository and argumentative texts.
- synthesize ideas from several complex readings, demonstrating critical thinking skills.
- draft, revise, edit, and proofread a wide variety of essay types effectively, showing mastery of English writing style, grammar, vocabulary, and mechanics.
- appraise and synthesize information on a variety of topics using library resources and credible Internet sources.
- compose a fully documented research paper based on a variety of reference works.

Career Information

This certificate can be used in workplaces, community interactions, and for academic purposes. Students with this certificate have proficiency in English reading, writing,

speaking and listening to produce clear, well structured texts on complex subjects, and express themselves fluently and spontaneously in their second language.

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Business Technology Certificate

This Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Business Technology offers advanced reading and writing skills at a post secondary level for English learners combined with introductory business skills and a variety of computer and office technologies. The combination of these skills can be used along their pathways to degrees, certificates, or transfer, and for use in multilingual office environments.

Certificate Requirements

Course Code	Course Title	Units
BUS 100	English for the Professional	3
BUSTEC 300.1	Keyboarding/Applications: Beginning	1
BUSTEC 305	Introduction to Business Information Technology	3
ESL 315	Intermediate-High Integrated Reading and Writing	6
ESL 325	Advanced-Low Integrated Reading and Writing	6
ESLL 320	Advanced-Low Listening and Speaking	3
Total Units:		**22**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- write and edit clear, well-developed essays on academic topics and effectively use English as applied in Business.
- summarize, paraphrase, and quote readings to integrate outside sources into writing.
- employ appropriate reading strategies to address a full range of reading tasks.
- apply techniques of written communication, sentence structure, word usage, punctuation, spelling, business vocabulary, and business and employment document formatting.
- analyze written communication and compose and organize paragraphs into effective business documents.
- participate in in-depth discussions effectively, take clear notes, and give oral presentations in a business environment.
- convey intended meaning, including accuracy in sound production, syllabification, and intonation.
- formulate and use a variety of interactive strategies effectively such as clarification, polite interruption, and agreement/disagreement strategies.
- apply the proper use of keyboarding techniques.
- define the terms associated with business information systems and technologies.

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Computer Info Science Certificate

This Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Computer Information Science offers advanced reading and writing skills at a post secondary level for English learners combined with introductory computer information skills. The combination of these skills can be used along their pathways to degrees, certificates, or transfer, and for use in multilingual office environments.

Certificate Requirements

Course Code	Course Title	Units
ESL 315	Intermediate-High Integrated Reading and Writing	6
ESL 325	Advanced-Low Integrated Reading and Writing	6
ESLL 320	Advanced-Low Listening and Speaking	3
A minimum of 6 units from the following:		6
CISA 305	Beginning Word Processing (2)	
CISA 315	Introduction to Electronic Spreadsheets (2)	
CISA 320	Introduction to Database Management (1)	
CISA 330	Desktop Publishing (2)	
CISC 310	Introduction to Computer Information Science (3)	
CISC 350	Introduction to Data Communications (1)	
CISN 340	Cisco Networking Academy CCNA: Introduction to Networks (3.5)	
CISN 341	CISCO Networking Academy (CCNA)tm:Switching, Routing, and Wireless Essentials (3.5)	
CISP 300	Algorithm Design/Problem Solving (3)	
CISP 360	Introduction to Structured Programming (4)	
CISS 300	Introduction to Information Systems Security (1)	
CISS 310	Network Security Fundamentals (3)	

Course Code	Course Title	Units
CISW 300	Web Publishing (3)	
Total Units:		**21**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- write formal academic essays as well as apply techniques of written communication, sentence structure, word usage, punctuation, and spelling.
- employ reading strategies, such as summarizing, paraphrasing, and quoting and integrating outside sources into writing.
- analyze written communication and compose and organize paragraphs into effective documents.
- convey intended meaning, including accuracy in sound production, syllabification, and intonation.
- formulate and use a variety of interactive strategies effectively such as clarification, polite interruption, and agreement/disagreement strategies.
- participate in in-depth discussions effectively, take clear notes, and give oral presentations in a business environment.
- explain how a computer system works and differentiate between hardware and software components.
- explain the basic operations of networks.
- demonstrate the secure utilization of internet resources.
- demonstrate an understanding of the development and use of information systems in business.
- manipulate databases using database management software.
- build software solutions to business problems using internet technology.

Career Information

This certificate supports course work in a variety of computer science professions, including in multilingual work environments.

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Culinary Arts Certificate

This Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Culinary Arts offers advanced reading, writing, listening, and speaking skills at a post secondary level for English learners combined with introductory hospitality management skills. The combination of these skills can be used along their pathways to degrees, certificates, or transfer, and for use in multilingual work environments.

Certificate Requirements

Course Code	Course Title	Units
ESL 315	Intermediate-High Integrated Reading and Writing	6
ESL 325	Advanced-Low Integrated Reading and Writing	6
ESLL 320	Advanced-Low Listening and Speaking	3
HM 101	Introductory Culinary Skills	1.5
HM 300	Introduction to Hospitality - Becoming a Chef	3
Total Units:		**19.5**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- write formal academic essays as well as apply techniques of written communication, sentence structure, word usage, punctuation, and spelling.
- employ reading strategies, such as summarizing, paraphrasing, and quoting and integrating outside sources into writing.
- analyze written communication and compose and organize paragraphs into effective documents.
- convey intended meaning, including accuracy in sound production, syllabification, and intonation.
- formulate and use a variety of interactive strategies effectively such as clarification, polite interruption, and agreement/disagreement strategies.
- participate in in-depth discussions effectively, take clear notes, and give oral presentations in a business/work environment.
- employ skills required for all entry-level food preparation courses.
- demonstrate skills in equipment utilization, weights, measurements, knife cut identification, speed and accuracy, as well as kitchen product identification and utilization.
- convey the history of the hospitality and culinary professions, explore the numerous avenues of opportunity, and study the advantages of continuing education in the field.

- demonstrate background knowledge of and approaches of successful chefs and restaurateurs.

Career Information

This certificate supports course work in the hospitality management profession, including in multilingual work environments.

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Early Childhood Education Certificate

This Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Early Childhood Education offers advanced reading, writing, listening, and speaking skills at a post secondary level for English learners combined with introductory early childhood education skills. The combination of these skills can be used along their pathways to degrees, certificates, or transfer, and for use in multilingual work environments.

Certificate Requirements

Course Code	Course Title	Units
ECE 300	Introduction to Principles and Practices in Early Childhood Education	3
ECE 312	Child Development	3
ESL 315	Intermediate-High Integrated Reading and Writing	6
ESL 325	Advanced-Low Integrated Reading and Writing	6
ESLL 320	Advanced-Low Listening and Speaking	3
Total Units:		**21**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- write formal academic essays as well as apply techniques of written communication, sentence structure, word usage, punctuation, and spelling.
- employ reading strategies, such as summarizing, paraphrasing, and quoting and integrating outside sources into writing.
- analyze written communication and compose and organize paragraphs into effective documents.
- convey intended meaning, including accuracy in sound production, syllabification, and intonation.
- formulate and use a variety of interactive strategies effectively such as clarification, polite interruption, and agreement/disagreement strategies.
- participate in in-depth discussions effectively, take clear notes, and give oral presentations in a business/work environment.
- discuss the history of early childhood education, evolution of professional practices and ethics, educational principles that support child development from birth through the school-age years.
- execute the teaching practices based on observation, documentation, and interpretation of childrenâ€™s behavior.
- discuss the growth and development of children from the prenatal stage through adolescence. For each stage of development, describe the physical, cognitive, linguistic, social-moral, and emotional aspects of development.
- apply research methods and utilize data collection approaches as applied to early childhood education.
- explain the influences of culture, family, and the interaction of maturational and environmental factors in early childhood education.
- exhibit foundation knowledge for early child care and education, teaching, and parenting.

Career Information

This certificate supports course work in the early childhood education profession, including in multilingual work environments.

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Health Sciences Certificate

The Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Health Sciences recognizes English as a Second Language students' milestones in completing both advanced academic ESL course work and introductory coursework in several health science fields. It incentivizes them to continue taking courses in this discipline after completing higher level ESL courses and to obtain a Certificate of Achievement or an Associate degree for use in a workplace.

Certificate Requirements

Course Code	Course Title	Units
ESL 315	Intermediate-High Integrated Reading and Writing	6
ESL 325	Advanced-Low Integrated Reading and Writing	6
ESLG 320	Advanced-Low Grammar (3)	3

Course Code	Course Title	Units
or ESLL 320	Advanced-Low Listening and Speaking (3)	
A minimum of 5 units from the following:		5
AH 112	Strategies for Student Success in Health Occupations (3)	
AH 311	Medical Language for Health-Care Providers (3)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
CHEM 305	Introduction to Chemistry (5)	
CISC 300	Computer Familiarization (1)	
COMM C1000	Introduction to Public Speaking (3)	
HCI 300	Introduction to Healthcare Interpreting (0.5)	
NUTRI 300	Nutrition (3)	
Total Units:		**20**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze, compose, and organize oral and written communication into effective documents and/or academic compositions.
- employ reading strategies.
- participate in in-depth discussions effectively.
- take clear notes.
- give oral presentations in a business/work environment.
- convey intended meaning and formulate and use a variety of interactive strategies effectively such as clarification, polite interruption, and agreement/disagreement strategies.
- research and critically evaluate information to create informed responses to issues and problems and design messages that adapt to target audiences in order to maximize communication effectiveness.
- demonstrate basic knowledge of introductory healthcare or scientific terms.
- employ effective communication in professional healthcare settings.

Career Information

Students who complete this Pathway to Health Sciences certificate will have gained knowledge in academic English and introductory skills in several health sciences fields, such as Healthcare Interpreting, Nutrition, and Allied Health.

Certificates

Intermediate-High Proficiency in English as a Second Language Certificate

This certificate recognizes attainment of English language abilities at an intermediate-high level in listening, speaking, reading, writing, and grammar.

Certificate Requirements

Course Code	Course Title	Units
ESL 315	Intermediate-High Integrated Reading and Writing	6
ESLG 310	Intermediate-High Grammar	3
ESLL 310	Intermediate-High Listening and Speaking	3
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify the central message and key supporting details of intermediate-high listening passages.
- apply oral skills to convey meaning clearly in brief oral presentations.
- analyze a text closely and recognize patterns of organization.
- outline, paraphrase, and summarize basic concepts from readings.
- write soundly structured, unified essays in response to prompts.
- demonstrate competency in using the 12 verb tenses.

Career Information

This certificate can be used to indicate knowledge of English and abilities in listening, speaking, reading and writing for multilingual use in a variety of workplaces and within a diverse range of environments in communities. In the classroom, students can read and write about a wide range of subjects and explain viewpoints on issues.

Intermediate-Low Proficiency in English as a Second Language Certificate

This certificate recognizes attainment of English language abilities at an intermediate-low level in listening, speaking, reading, and writing.

Certificate Requirements

Course Code	Course Title	Units
ESL 47	Intermediate-Low Integrated Reading and Writing	6
ESLG 41	Elements of English Sentences	3
ESLL 41	Listening, Speaking and Presentation Skills for College	3
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- communicate orally in basic English in common social and work situations.
- demonstrate comprehension of written and spoken English in familiar contexts.
- write basic, comprehensible English on familiar topics.

Career Information

This certificate can be used to indicate knowledge and abilities in English at a basic level with everyday topics. Students with this certificate can interact in familiar community events.

Intermediate-Mid Proficiency in English as a Second Language Certificate

This certificate recognizes attainment of English language abilities to an intermediate-mid level in listening, speaking, reading, writing, and grammar.

Certificate Requirements

Course Code	Course Title	Units
ESL 55	Intermediate-Mid Integrated Reading and Writing	6
ESLG 51	Grammar for Intermediate ESL Writers	3
ESLL 51	Academic Communication, Notetaking, and College Success Skills	3
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- communicate orally in grammatical English in everyday social and work situations.
- demonstrate comprehension of written and spoken English in work and social contexts.
- write comprehensible, grammatical English on everyday topics.

Career Information

This certificate can be used to indicate knowledge of English and abilities for use at an intermediate level. Students with this certificate can interact in English in different workplaces and within a range of familiar community interactions.

English as a Second Language (ESL) Courses

ESL 37 Novice-High Integrated Reading and Writing

Units: 6

Hours: 108 hours LEC

Prerequisite: None.

Advisory: Concurrent enrollment in ESLG 31, ESLL 31, and ESLLAB 30. Completion of 1 to 2 years of adult school courses or English language skills at the foundational level.

Students in this course learn academic reading and writing English skills at the novice-high level, with an emphasis on vocabulary development, reading comprehension, and the development of paragraphs. It covers the development of compositions with a clear beginning, middle, and end. 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 course serves as a prerequisite to ESL 47.

ESL 47 Intermediate-Low Integrated Reading and Writing

Units: 6

Hours: 108 hours LEC

Prerequisite: ESL 37 with a grade of "C" or better, or placement through the assessment process.

Advisory: ESLG 41, ESLL 41, and ESLLAB 40

This course offers academic reading and writing English skills at the intermediate-low level with an emphasis on vocabulary, reading comprehension, critical thinking, and the development of writing using the writing process. It provides skills in pre-writing, structuring paragraphs and multiple-paragraph compositions, and constructing a variety of sentence types. 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 course serves as a prerequisite to ESL 55.

ESL 55 Intermediate-Mid Integrated Reading and Writing

Units: 6

Hours: 108 hours LEC

Prerequisite: ESL 47 with a grade of "C" or better, or placement through the assessment process.

This is an intermediate-mid level skills course in reading and writing for non-native speakers of English. This course introduces academic reading skills through analyzing readings from a number of rhetorical styles as well as techniques and processes essential to reading comprehension and essay writing. Language instruction focuses on strengthening individual proofreading and editing skills. Completion of this course is equivalent to completion of both ESLR 50 and ESLW 50 and serves as a prerequisite to ESL 315. This course is not open to students who have completed both ESLR 50 and ESLW 50.

ESL 299 Experimental Offering in English as a Second Language

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

ESL 311 College ESL Newsletter Production

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU

This course offers experience in developing and producing newsletters featuring ESL student writing, interviews of students, staff, and faculty, various advice and information columns, and language tips that include grammar, vocabulary development, and pronunciation for basic language skills acquisition (four to six times a semester).

ESL 315 Intermediate-High Integrated Reading and Writing

Units: 6

Hours: 108 hours LEC

Prerequisite: ESL 55 with a grade of "C" or better, or placement through the assessment process.

Transferable: CSU; UC

This is an intermediate-high level integrated reading and writing course for non-native speakers of English. This course introduces academic reading skills through analyzing readings from a number of rhetorical styles as well as techniques and processes essential to reading comprehension and academic writing. Language instruction focuses on strengthening individual proofreading and editing skills. Completion of this course is equivalent to completion of both ESLR 310 and ESLW 310 and serves as a prerequisite to ESL 325. This course is not open to students who have completed both ESLR 310 and ESLW 310.

ESL 325 Advanced-Low Integrated Reading and Writing

Units: 6

Hours: 108 hours LEC

Prerequisite: ESL 315 with a grade of "C" or better, or placement through the assessment process.

Transferable: CSU; UC

This advanced-low integrated-skills course for non-native speakers of English builds on academic reading and writing skills, while also introducing basic research steps. Emphasis is placed on developing critical reading and writing skills to evaluate a variety of college-level texts and use them to inform and support students' own compositions. Instruction targets the needs of multilingual writers by addressing specific linguistic and cultural content to promote academic success. The goal of this course is to prepare students for transfer-level composition.

ESL 350 Critical Reading, Research and Writing Through Literature

Units: 4

Hours: 72 hours LEC

Prerequisite: A grade of "C" or better in ESLW 340 OR a grade of "C" or better in ENGL C1000.

Transferable: CSU; UC

General Education: Local GE L1B; Local GE L3; Cal-GETC Area 1B; Cal-GETC Area 3B

C-ID: C-ID ENGL 110; C-ID ENGL 120

This course covers reading and written analysis of culturally and internationally diverse complex literary works in all major genres, including poetry, drama, and fiction. Students develop analytical, integrative, and research skills while exploring

multicultural perspectives. A variety of cultural and social perspectives are explored through the comparison of different ethnic groups within the U.S., focusing on the influence of non-European and non-Western cultures on the content or style of various texts. Formal writing assignments total at least 5000 words. In-person or virtual attendance at readings, plays, and/or films may be required. This course is designed for multicultural and multilingual students.

ESL 499 Experimental Offering in English as a Second Language

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

English as a Second Language - Grammar (ESLG) Courses

ESLG 31 Basic English Grammar

Units: 3

Hours: 54 hours LEC

Prerequisite: ESLW 20 with a grade of "C" or better, or placement through the assessment process.

Advisory: Concurrent enrollment in other ESL courses at the appropriate level.

This is a course for English language learners at the novice-high level, which provides an introduction to the basics of English grammar including parts of speech, word form, word order, and the fundamental verb tenses necessary for spoken and written discourse. It is part of the grammar sequence that prepares ESL students to take college courses leading to a certificate, degree, and/or transfer.

ESLG 41 Elements of English Sentences

Units: 3

Hours: 54 hours LEC

Prerequisite: ESLG 31 with a grade of "C" or better, or placement through the assessment process.

Advisory: Concurrent enrollment in other ESL courses at the appropriate level.

This course focuses on learning academic grammar skills at the intermediate-low level, with an emphasis on fundamental grammatical structures in conversation, writing, and reading. It is part of the grammar sequence that prepares ESL students to take college courses leading to a certificate, degree, or transfer.

ESLG 51 Grammar for Intermediate ESL Writers

Units: 3

Hours: 54 hours LEC

Prerequisite: ESLG 41 with a grade of "C" or better, or placement through the assessment process.

Advisory: Concurrent enrollment in an ESL Listening and Speaking and/or Integrated Reading and Writing course at the student's assessed level(s).

This is a course for English language learners at the intermediate-mid level, which focuses on the fundamental grammatical structures of English necessary for spoken and written discourse. It reviews the form and use of the simple and continuous tenses in the present, past and future as well as introduces 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. This course is part of the grammar sequence that prepares ESL students to take college courses leading to a certificate, degree, or transfer.

ESLG 310 Intermediate-High Grammar

Units: 3

Hours: 54 hours LEC

Prerequisite: ESLG 51 with a grade of "C" or better, or placement through the assessment process.

Advisory: Enrollment in an ESL Listening and Speaking, Reading, and/or Writing course at the student's assessed level(s).

Transferable: CSU

This course focuses on further practice of the forms, meanings, and usage of grammatical structures of English at the intermediate-high level. New focal points include adjective and adverb clauses as well as new verb tense and modal auxiliary verb use. Written and oral practice reinforces the structures studied.

ESLG 320 Advanced-Low Grammar

Units: 3

Hours: 54 hours LEC

Prerequisite: ESLG 310 with a grade of "C" or better; or, for those not previously enrolled in an ESL grammar course within the Los Rios district, placement through the assessment process.

Advisory: Enrollment in an ESL Listening and Speaking, Reading, and/or Writing course at the student's assessed level(s).

Transferable: CSU

This course focuses on practice in the forms and meanings of major structures used in English conversation and writing with an emphasis on clause structure at the advanced level. Oral practice reinforces the structures studied. Assignments emphasize sentence structure in the context of longer written work.

ESLG 499 Experimental Offering in English as a Second Language - Grammar

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

English as a Second Language - Listening (ESLL) Courses

ESLL 20 Novice Listening and Speaking

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Enrollment Limitation: Verified completion of the ESL assessment test.

Advisory: One year of adult school and concurrent enrollment in ESL Reading and Writing courses at the student's assessed levels are highly recommended.

This course, intended for non-native speakers of English, focuses on understanding and producing appropriate language, and utilizing learned phrases and expressions required for everyday communication. Basic clarification strategies are demonstrated and practiced. English sounds and intonation patterns are introduced.

ESLL 31 Listening and Speaking for College Readiness

Units: 3

Hours: 54 hours LEC

Prerequisite: ESLL 20 with a grade of "C" or better, or placement through the assessment process.

This course is part of the listening and speaking sequence that prepares ESL students to take college courses leading to a certificate, degree, and/or transfer. It focuses on learning vocabulary, participating in a variety of listening activities, and discussing a wide variety of topics. It helps students to recognize and produce the sounds, stress, rhythm, and intonation patterns of American English.

ESLL 41 Listening, Speaking and Presentation Skills for College

Units: 3

Hours: 54 hours LEC

Prerequisite: ESLL 31 with a grade of "C" or better, or placement through the assessment process.

This course is part of the listening and speaking sequence that prepares students to take college courses leading to a certificate, degree, and/or transfer. It covers developing tactics to communicate their ideas in academic situations, and practice in the pronunciation of English.

ESLL 51 Academic Communication, Notetaking, and College Success Skills

Units: 3

Hours: 54 hours LEC

Prerequisite: ESLL 41 with a grade of "C" or better, or placement through the assessment process.

This intermediate mid-level course, intended for non-native speakers of English, helps students understand and be understood in both familiar and unfamiliar situations. Activities include academic listening and speaking activities and a continuation of pronunciation skills.

ESLL 299 Experimental Offering in English as a Second Language - Listening

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

ESLL 310 Intermediate-High Listening and Speaking

Units: 3

Hours: 54 hours LEC

Prerequisite: ESLL 51 with a grade of "C" or better; or, for those not previously enrolled in an ESL listening course within the Los Rios district, placement through the assessment process.

Advisory: Concurrent enrollment in an ESL Reading and Writing course, and/or Grammar course at the student's assessed level(s).

Transferable: CSU

This intermediate-high-level course, intended for non-native speakers of English, develops listening and speaking for academic purposes, including comprehension of lectures, note-taking, and discussion. It includes a review of American English sounds with emphasis on understanding and producing stress, rhythm, and intonation patterns to communicate effectively.

ESLL 320 Advanced-Low Listening and Speaking

Units: 3

Hours: 54 hours LEC

Prerequisite: ESLL 310 with a grade of "C" or better; or, for those not previously enrolled in an ESL listening course within the Los Rios district, placement through the assessment process.

Advisory: Concurrent enrollment in ESL Reading and Writing courses at the student's assessed level.

Transferable: CSU

This course provides intensive practice in listening and active participation strategies for U.S. college courses. Activities include listening to extended lectures from various subject areas, refining note-taking skills, participating in in-depth discussions, and giving oral presentations. Practice of pronunciation skills is also covered.

ESLL 499 Experimental Offering in English as a Second Language - Listening

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

English as a Second Language - Pronunciation (ESLP) Courses

English as a Second Language - Reading (ESLR) Courses

ESLR 20 Novice Reading

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Advisory: One year of adult school and concurrent enrollment in ESL Writing and Listening/Speaking courses at the student's assessed levels are highly recommended.

This course, intended for non-native speakers of English, focuses on literal understanding of basic vocabulary and readings at the Novice level. There is a focus on expanding basic vocabulary through readings, word parts, and word-form activities. The concepts of using context and giving personal reactions to readings are introduced.

ESLR 499 Experimental Offering in English as a Second Language - Reading

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

English as a Second Language - Writing (ESLW) Courses

ESLW 20 Novice Writing

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Advisory: One year of adult school and concurrent enrollment in ESL Reading and Listening/Speaking courses at the student's assessed levels are highly recommended.

This course for non-native speakers of English focuses on the structure of English sentences, including parts of speech and word order. Emphasis is on producing clear, basic written sentences at the novice level using everyday vocabulary. Question formation is also demonstrated and practiced.

ESLW 340 Advanced Composition

Units: 4

Hours: 72 hours LEC

Prerequisite: ESL 325 with a grade of "C" or better, or placement through the assessment process.

Transferable: CSU; UC (UC credit limitation: ENGL C1000, ENGL C1000H and ESLW 340 combined: maximum credit, 3 units)

General Education: Local GE L1A; Cal-GETC Area 1A

C-ID: C-ID ENGL 100

This college composition course emphasizes writing, reading, critical thinking skills and research skills essential for completion of a college degree. It focuses on the needs of multilingual writers by addressing specific language and cultural content required for academic success at the college level. Writing assignments include expository and argumentative essays (5,000 words minimum in total) using MLA documentation and format. Writing assignments are based on reading of transfer-level texts that include diverse perspectives.

ESLW 499 Experimental Offering in English as a Second Language - Writing

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

English as a Second Language Accelerated (ESLA) Courses

ESLA 299 Experimental Offering in English as a Second Language Accelerated

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

ESLA 499 Experimental Offering in English as a Second Language Accelerated

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

English as a Second Language Lab (ESLLAB) Courses

ESLLAB 30 ESL Center: Novice-High Skills in ESL

Units: 0.5 - 1.5

Hours: 27 - 81 hours LAB

Prerequisite: ESLL 20, ESLR 20, and ESLW 20 with grades of "C" or better, or placement through the assessment process.

Advisory: Concurrent enrollment in ESL 37.

This lab course offers students practice in reading, formatting/mechanics, writing, and/or grammar skills at the novice-high level. Students confer with a lab instructor to design a study plan to refine basic English language skills. This course provides individualized and small-group instruction for students. This course is most beneficial when taken concurrently with ESL 37. Students receive a grade of Pass and 0.5 units of credit for accumulating 27 lab hours and completing assigned work. Students may take this course in .5 unit increments over the course of three semesters, split the units over two semesters, or take 1.5 units in one semester using different modules.

ESLLAB 31 Novice-High Support in ESL

Units: 0.5 - 1.5

Hours: 27 - 81 hours LAB

Prerequisite: ESLL 20, ESLR 20, or ESLW 20 with a grade of "C" or better, or placement through the assessment process.

Advisory: ESLG 31 and ESLL 31

This lab course offers students practice in listening, speaking, pronunciation, oral grammar, and other language skills at the novice-high level. Students confer with the lab instructor to design a study plan to refine basic English oral skills. This course provides individualized and small-group instruction to students. This course is most beneficial when taken concurrently with ESLG 31 and/or ESLL 31. Students may enroll in the course at any time during the first nine weeks of the semester. Students receive a grade of Pass and 0.5 units of credit for accumulating 27 lab hours and completing assigned work. Students may take this course in .5-unit increments over the course of three semesters, split the units over two semesters, or take 1.5 units in one semester using different modules.

ESLLAB 40 ESL Center: Intermediate-Low Skills in ESL

Units: 0.5 - 1.5

Hours: 27 - 81 hours LAB

Prerequisite: ESL 37, ESLG 31, or ESLL 31 with a grade of "C" or better, or placement through the assessment process.

Advisory: ESL 47

This lab course offers students practice in reading, formatting/mechanics, writing, and/or grammar skills at the intermediate-low level. Students confer with a lab instructor to design a study plan to refine intermediate English language skills. This course provides individualized and small-group instruction for students. This course is most beneficial when taken concurrently with ESL 47. Students may enroll in the course at any time during the first nine weeks of the semester. Students receive a grade of Pass and 0.5 units of credit for accumulating 27 lab hours and completing assigned work. Students may take this course in .5-unit increments over the course of three semesters, split the units over two semesters, or take 1.5 units in one semester using different modules.

ESLLAB 41 ESL Center: Intermediate-Low Support in ESL

Units: 0.5 - 1.5

Hours: 27 - 81 hours LAB

Prerequisite: ESL 37, ESLG 31, or ESLL 31 with a grade of "C" or better, or placement through the assessment process.

Advisory: ESLG 41 or ESLL 41

This lab course offers students practice in listening, speaking, pronunciation, oral grammar, and other language skills at the intermediate-low level. Students confer with the lab instructor to design a study plan to refine intermediate English oral skills. This course provides individualized and small group instruction to students. This course is most beneficial when taken concurrently with ESLG 41 and/or ESLL 41. Students may enroll in the course at any time during the first nine weeks of the semester. Students receive a grade of Pass and 0.5 units of credit for accumulating 27 lab hours and completing assigned work. Students may take this course in .5-unit increments over the course of three semesters, split the units over two semesters, or take 1.5 units in one semester using different modules.

ESLLAB 50 ESL Center: Intermediate-Mid Skills in ESL

Units: 0.5 - 1.5

Hours: 27 - 81 hours LAB

Prerequisite: ESL 47, ESLG 41, or ESLL 41 with a grade of "C" or better, or placement through the assessment process.

Advisory: ESL 55

This lab course offers students practice in reading, formatting/mechanics, writing, and/or grammar skills at the intermediate-mid level. Students confer with a lab instructor to design a study plan to refine expanding intermediate English language skills. This course provides individualized and small-group instruction for students. This course is most beneficial when taken concurrently with ESL 55. Students may enroll in the course at any time during the first nine weeks of the semester. Students receive a grade of Pass and 0.5 units of credit for accumulating 27 lab hours and completing assigned work. Students may take this course in .5-unit increments over the course of three semesters, split the units over two semesters, or take 1.5 units in one semester using different modules.

ESLLAB 51 ESL Center: Intermediate-Mid Support in ESL

Units: 0.5 - 1.5

Hours: 27 - 81 hours LAB

Prerequisite: ESL 47, ESLG 41, or ESLL 41 with a grade of "C" or better, or placement through the assessment process.

Advisory: ESL 55, ESLG 51, and ESLL 51

This lab course offers students practice in listening, speaking, pronunciation, oral grammar, and other language skills at the intermediate-mid level. Students confer with the lab instructor to design a study plan to refine expanding intermediate English oral skills. This course provides individualized and small-group instruction to students. This course is most beneficial when taken concurrently with ESLG 51 and/or ESLL 51. Students may enroll in the course at any time during the first nine weeks of the semester. Students receive a grade of Pass and 0.5 units of credit for accumulating 27 lab hours and completing assigned work. Students may take this course in .5-unit increments over the course of three semesters, split the units over two semesters, or take 1.5 units in one semester using different modules.

ESLLAB 60 ESL Center: Intermediate-High Skills in ESL

Units: 0.5 - 1.5

Hours: 27 - 81 hours LAB

Prerequisite: ESL 55 or ESLG 51 with a grade of "C" or better, or placement through the assessment process.

Advisory: ESL 315

This lab course offers students practice in reading, formatting/mechanics, writing, and/or grammar skills at the intermediate-high level. Students confer with a lab instructor to design a study plan to refine intermediate-high English language skills. This course provides individualized and small-group instruction for students. This course is most beneficial when taken concurrently with ESL 315. Students may enroll in the course at any time during the first nine weeks of the semester. Students receive a grade of Pass and 0.5 units of credit for accumulating 27 lab hours and completing assigned work. Students may take this course in .5-unit increments over the course of three semesters, split the units over two semesters, or take 1.5 units in one semester using different modules.

ESLLAB 61 ESL Center: Intermediate-High Support in ESL

Units: 0.5 - 1.5

Hours: 27 - 81 hours LAB

Prerequisite: ESLG 51 or ESLL 51 with a grade of "C" or better, or placement through the assessment process.

Advisory: ESLG 310 and ESLL 310

This lab course offers students practice in listening, speaking, pronunciation, oral grammar, and other language skills at the intermediate-high level. Students confer with the lab instructor to design a study plan to refine English oral skills. This course provides individualized and small-group instruction to students. This course is most beneficial when taken concurrently with ESLG 310 and/or ESLL 310. Students may enroll in the course at any time during the first nine weeks of the semester. Students receive a grade of Pass and 0.5 units of credit for accumulating 27 lab hours and completing assigned work. Students may take this course in .5-unit increments over the course of three semesters, split the units over two semesters, or take 1.5 units in one semester using different modules.

ESLLAB 70 ESL Center: Advanced-Low Skills in ESL

Units: 0.5 - 1.5

Hours: 27 - 81 hours LAB

Prerequisite: ESL 315, ESLG 310, or ESLL 310 with a grade of "C" or better, or placement through the assessment process.

Advisory: ESL 325

This lab course offers students practice in reading, formatting/mechanics, writing, and/or grammar skills at the advanced-low level. Students confer with a lab instructor to design a study plan to refine advanced-low English language skills. This course provides individualized and small-group instruction for students. This course is most beneficial when taken concurrently with ESL 325. Students may enroll in the course at any time during the first nine weeks of the semester. Students receive a grade of Pass and 0.5 units of credit for accumulating 27 lab hours and completing assigned work. Students may take this course in .5-unit increments over the course of three semesters, split the units over two semesters, or take 1.5 units in one semester using different modules.

ESLLAB 71 ESL Center: Advanced-Low Support in ESL

Units: 0.5 - 1.5

Hours: 27 - 81 hours LAB

Prerequisite: ESL 315, ESLG 310, or ESLL 310 with a grade of "C" or better, or placement through the assessment process.

This lab course offers students practice in listening, speaking, pronunciation, oral grammar, and other language skills at the advanced-low level. Students confer with the lab instructor to design a study plan to refine advanced-low English oral skills. This course provides individualized and small-group instruction to students. This course is most beneficial when taken concurrently with ESLG 320 and/or ESLL 320. Students may enroll in the course at any time during the first nine weeks of the semester. Students receive a grade of Pass and 0.5 units of credit for accumulating 27 lab hours and completing assigned work. Students may take this course in .5-unit increments over the course of three semesters, split the units over two semesters, or take 1.5 units in one semester using different modules.

ESLLAB 80 ESL Center: Advanced Skills in ESL

Units: 0.5 - 1.5

Hours: 27 - 81 hours LAB

Prerequisite: ESL 325, ESLG 320, or ESLL 320 with a grade of "C" or better, or placement through the assessment process.

Advisory: ESL 350 or ESLW 340

This lab course offers students practice in reading, formatting/mechanics, writing, and/or grammar skills at the advanced skills level. Students confer with a lab instructor to design a study plan to refine advanced English language skills. This course provides individualized and small-group instruction for students. This course is most beneficial when taken concurrently with ESLW 340 or ESL 350. Students may enroll in the course at any time during the first nine weeks of the semester. Students receive a grade of Pass and 0.5 units of credit for accumulating 27 lab hours and completing assigned work. Students may take this course in .5-unit increments over

the course of three semesters, split the units over two semesters, or take 1.5 units in one semester using different modules.

ESLLAB 299 Experimental Offering in English as a Second Language Lab

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

ESLLAB 499 Experimental Offering in English as a Second Language Lab

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

English as a Second Language (ESL) Course Sequence

Proficiency Level	Listening and Speaking Courses (3 Units)	Integrated Reading and Writing Courses (6 Units)	Grammar Courses (3 Units)	ESL Center Courses (0.5 to 1.5 Units)
Advanced	N/A	ESL 350 (4 units) = ENGL C1003	N/A	ESL LAB 80
Advanced	N/A	ESLW 340 (4 units) = ENGL C1000	N/A	ESL LAB 80
Advanced-Low	ESLL 320	ESL 325	ESLG 320	ESL LAB 70 or 71
Intermediate-High	ESLL 310	ESL 315	ESLG 310	ESL LAB 60 or 61
Intermediate-Mid	ESLL 51	ESL 55	ESLG 51	ESL LAB 50 or 51
Intermediate-Low	ESLL 41	ESL 47	ESLG 41	ESL LAB 40 or 41
Novice-High	ESLL 31	ESL 37	ESLG 31	ESL LAB 30 or 31

Ethnic Studies

Overview

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. Our courses seek 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.

Dean: Matt Wright

Department Chair: Mark Carnero

Phone: (916) 484-8283

Email: AskHB-PCS@arc.losrios.edu

Ethnic Studies (ETHNS) Courses

ETHNS 299 Experimental Offering in Ethnic Studies

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

ETHNS 300 Introduction to Ethnic Studies

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L6; Cal-GETC Area 4; Cal-GETC Area 6

This course introduces the diverse institutional, cultural, and historical issues relating to the past and present life circumstances and intersectional identities of the four core Ethnic populations of Asian Americans, Chicana/o Americans, African Americans, and Native/Indigenous Americans within the United States.

ETHNS 320 Introduction to African American Studies

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L6; Cal-GETC Area 4; Cal-GETC Area 6

This course introduces the diverse institutional, cultural, and historical issues relating to the past and present life circumstances of African Americans within the United States. This course is interdisciplinary in nature and presents an overview of the cultural, economic, historic, social, and political issues in the life of African Americans in the United States. It

will expose students of all ethnic backgrounds to the issues germane to the experiences of African Americans in the United States.

ETHNS 330 Introduction to Asian American Studies

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L6; Cal-GETC Area 4; Cal-GETC Area 6

This course introduces the diverse institutional, cultural, and historical issues relating to the past and present life circumstances and intersectional identities of Asian Americans and Pacific Islanders.

ETHNS 350 Introduction to Native American Studies

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L6; Cal-GETC Area 4; Cal-GETC Area 6

This course introduces the diverse institutional, cultural, and historical issues relating to the past and present life circumstances and intersectional identities of Native Americans/American Indians within the United States. It provides a survey of traditional cultures of Native Americans/American Indians focusing on the social, religious, economic, and artistic practices. The antiquity, distribution, and linguistic histories of Native American/American Indian cultures are integrated with the contemporary status of Native peoples regarding social change and adaptation.

ETHNS 360 Introduction to Chicana/o/x Studies

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L6; Cal-GETC Area 4; Cal-GETC Area 6

This course introduces the diverse institutional, cultural, and historical issues relating to the past and present life circumstances and intersectional identities of Chicana/o/x Americans within the United States. Specifically, this course examines and redefines the lives of Chicana/o/x Americans through their own experiences from the inside looking out at the world.

ETHNS 499 Experimental Offering in Ethnic Studies

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Fashion

Overview

Fashion and fashion-related industries are the nation's largest employer. The fashion program at American River College provides students with the skills necessary to enter the job market with current, marketable, competitive skills. ARC follows industry needs by offering two program options: Fashion Design and Merchandising.

Fashion Design involves work with the design and production of clothing, whether with a large manufacturer, a small specialty firm or in a one-person business. A degree or certificate in Fashion Design develops the skills necessary to coordinate original design concepts with manufacturing, marketing, and merchandising practices. This program prepares students for entry-level jobs in apparel production companies, apparel manufacturing plants, designer workrooms, and custom sewing workrooms. This program also prepares students for self-employment or entrepreneurship.

Fashion Merchandising refers to the large task of in-store promotion and display of various types of fashion merchandise. A degree or certificate in Fashion Merchandising develops the skills necessary for jobs in fashion coordinating, promotion, visual presentation, management, merchandising, retail buying, and entrepreneurial opportunities.

Degrees and Certificates Offered

A.A. in Fashion Design

A.A. in Fashion Merchandising

Fashion Design Certificate

Fashion Merchandising Certificate

Apparel Construction Certificate

Fashion Entrepreneur Certificate

Fashion Illustration Certificate

Fashion Retailing Certificate

Patternmaking and Draping Certificate

Runway Design Certificate

Dean: Corinne Arrieta Katzorke

Department Chair: Dyanne Marte

Phone: (916) 484-8570

Email: AskHB-Arts@arc.losrios.edu

Associate Degrees

A.A. in Fashion Design

This degree offers the skills necessary to coordinate original fashion design concepts with manufacturing, marketing, and merchandising practices. Course work includes basic apparel construction, pattern drafting, draping, textiles, historic and current fashion trends, hand and computer illustration, and entrepreneurial opportunities.

Degree Requirements

Course Code	Course Title	Units
FASHN 300	Introduction to the Fashion Industry	3
FASHN 310	Fashion Analysis/Clothing Selection	3
FASHN 320	Textiles	3
FASHN 330	History of Western World Fashion	3
FASHN 342	Fashion Illustration I	3
FASHN 344	Fashion Illustration II	3
FASHN 357	Apparel Construction I	3
FASHN 358	Apparel Construction II	3
FASHN 374	Pattern Making and Design	3
FASHN 378	Advanced Pattern Making and Design	3
FASHN 379	Draping	3
FASHN 382	Collection Design and Production	3
FASHN 398	Fashion Entrepreneur	3
A minimum of 3 units from the following:		3
FASHN 359	Knitwear Construction (1.5)	
FASHN 362	Tailoring Techniques (3)	
FASHN 363	Fashion Accessories and Embellishments (1.5)	
FASHN 380	Computer Patternmaking (3)	
FASHN 381	Couture Draping for Eveningwear (3)	
Total Units:		**42**

The Fashion Design Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and evaluate opportunities to start a design business in the fashion industry.
- analyze fashion fundamentals, fashion trends, fashion marketing, and global influences, as they relate to changes within the fashion industry.
- identify characteristics of various fibers, yarns, finishes, and fabrics as they relate to garments.
- communicate an idea or concept through a flat sketch or illustration utilizing free-hand and computer-generated techniques.
- utilize draping techniques to create original garment designs.
- construct patterns by computer generation and the flat pattern method.
- conceive designs, construct patterns, and sew garments to be shown in a fashion show.
- describe fashion and style features of historical and contemporary periods.
- create sample constructions utilizing basic apparel sewing skills.
- construct a garment with appropriate embellishment applications.
- research and identify apparel details, styles, and elements of design.

Career Information

This degree prepares students for entry-level jobs in apparel production companies, apparel manufacturing plants, designer workrooms, and custom sewing workrooms. It also prepares students for self-employment or entrepreneurship. Examples of careers in Fashion Design include Assistant Designer, CAD Technician, Computer Digitizer, Costing Engineer, Customer Services, Designer, Design Room

Assistant, Fashion Illustrator, Fashion Stylist, First Pattern Maker, Grader, Manufacturer's Sales Representative, Marker Maker, Operation Manager, Piece Goods Buyer, Product Specialist, Production Manager, Production Pattern Maker, Quality Controller, Quick Response Manager, Sales Manager, Sample Maker, Sewing Room Supervisor, Showroom Assistant, Tailor, Textile Colorist, Textile Croquis Painter, Textile Designer, Textile Researcher, Textile Tester, and Trim Buyer.

A.A. in Fashion Merchandising

This degree offers the skills necessary for jobs in fashion coordinating, promotion, visual presentation, management, merchandising, retail buying, and entrepreneurial opportunities.

Degree Requirements

Course Code	Course Title	Units
FASHN 300	Introduction to the Fashion Industry	3
FASHN 310	Fashion Analysis/Clothing Selection	3
FASHN 320	Textiles	3
FASHN 330	History of Western World Fashion	3
FASHN 342	Fashion Illustration I	3
FASHN 344	Fashion Illustration II	3
FASHN 393	Fashion Promotion	3
FASHN 395	Visual Merchandising	3
FASHN 397	Fashion Retail Buying	3
FASHN 398	Fashion Entrepreneur	3
A minimum of 3 units from the following:		3
ARTPH 370	Fashion, Wedding, and Portrait Photography (3)	
MGMT 362	Techniques of Management (3)	
MKT 310	Selling Professionally (3)	
MKT 312	Retailing (3)	
MKT 314	Advertising (3)	
Total Units:		**33**

The Fashion Merchandising Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- compare and contrast historical garment design to contemporary dress.
- conceive and produce a fashion show.
- develop visual displays for a window presentation.
- draft a six-month retail buying plan.
- assess characteristics of various fibers and how they relate to the finished fabric.
- draw a flat working sketch and a fashion illustration.
- apply principles of time management, cost control, and decision-making to managerial responsibilities.
- develop a business plan for a fashion related business.
- create portfolios of fashion, wedding and portrait photographs.
- analyze and demonstrate the steps of professional selling, including approach, needs assessment, presentation, overcoming objections and negotiating, closing, and servicing of the sale.
- describe how the advertising industry operates and produces advertising through the work of advertisers, agencies, media, and suppliers.
- explain how retailers use merchandise management decisions to implement their retail strategy including planning, buying, pricing, branding, and promoting their merchandise.
- develop an awareness of image projection and the impact of silent communication.

Career Information

This degree prepares students for entry-level jobs in retail merchandising, such as department store buyers, small boutique buyers, visual merchandisers, sales associates, management trainees, product developers and wholesalers. It also prepares students for self-employment or entrepreneurship.

Certificates of Achievement

Fashion Design Certificate

This certificate provides the skills necessary to coordinate original design concepts with manufacturing, marketing, and merchandising practices. Course work concentrates on apparel construction techniques, pattern drafting, historic and current fashion trends, hand and computer illustration, textiles, and entrepreneurial opportunities as they relate to the fashion industry.

Certificate Requirements

Course Code	Course Title	Units
FASHN 300	Introduction to the Fashion Industry	3
FASHN 310	Fashion Analysis/Clothing Selection	3

Course Code	Course Title	Units
FASHN 320	Textiles	3
FASHN 330	History of Western World Fashion	3
FASHN 342	Fashion Illustration I	3
FASHN 344	Fashion Illustration II	3
FASHN 357	Apparel Construction I	3
FASHN 358	Apparel Construction II	3
FASHN 374	Pattern Making and Design	3
FASHN 378	Advanced Pattern Making and Design	3
FASHN 379	Draping	3
FASHN 382	Collection Design and Production	3
FASHN 398	Fashion Entrepreneur	3
A minimum of 3 units from the following:		3
FASHN 359	Knitwear Construction (1.5)	
FASHN 362	Tailoring Techniques (3)	
FASHN 363	Fashion Accessories and Embellishments (1.5)	
FASHN 380	Computer Patternmaking (3)	
FASHN 381	Couture Draping for Eveningwear (3)	
Total Units:		**42**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and evaluate opportunities to start a design business in the fashion industry.
- analyze fashion fundamentals, fashion trends, fashion marketing, and global influences, as they relate to changes within the fashion industry.
- identify characteristics of various fibers, yarns, finishes, and fabrics as they relate to garments.
- communicate an idea or concept through a flat sketch or illustration utilizing free-hand and computer-generated techniques.
- utilize draping techniques to create original garment designs.
- construct patterns by computer generation and the flat pattern method.
- conceive designs, construct patterns, and sew garments to be shown in a fashion show.
- describe fashion and style features of historical and contemporary periods.
- create sample constructions utilizing basic apparel sewing skills.
- construct a garment with appropriate embellishment applications.
- research and identify apparel details, styles, and elements of design.

Career Information

This certificate prepares students for entry-level jobs in apparel production companies, apparel manufacturing plants, designer workrooms, and custom sewing workrooms. Examples of careers in Fashion Design include Assistant Designer, Customer Services, Designer, Design Room Assistant, Fashion Illustrator, Fashion Stylist, First Pattern Maker, Manufacturer's Sales Representative, Piece Goods Buyer, Product Specialist, Quality Controller, Sample Maker, Sewing Room Supervisor, Tailor, Textile Colorist, Textile Croquis Painter, Textile Designer, and Trim Buyer.

Fashion Merchandising Certificate

This certificate offers the skills necessary for jobs in the retail market. Course work concentrates on fashion coordination, promotion, visual presentation, management, merchandising, retail buying, and entrepreneurial opportunities.

Certificate Requirements

Course Code	Course Title	Units
FASHN 300	Introduction to the Fashion Industry	3
FASHN 310	Fashion Analysis/Clothing Selection	3
FASHN 320	Textiles	3
FASHN 330	History of Western World Fashion	3
FASHN 342	Fashion Illustration I	3
FASHN 344	Fashion Illustration II	3
FASHN 393	Fashion Promotion	3
FASHN 395	Visual Merchandising	3
FASHN 397	Fashion Retail Buying	3
FASHN 398	Fashion Entrepreneur	3
A minimum of 3 units from the following:		3
ARTPH 370	Fashion, Wedding, and Portrait Photography (3)	
MGMT 362	Techniques of Management (3)	
MKT 310	Selling Professionally (3)	
MKT 312	Retailing (3)	
MKT 314	Advertising (3)	
Total Units:		**33**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- compare and contrast historical garment design to contemporary dress.

- conceive and produce a fashion show.
- develop visual displays for a window presentation.
- draft a six-month retail buying plan.
- assess characteristics of various fibers and how they relate to the finished fabric.
- draw a flat working sketch and a fashion illustration.
- apply principles of time management, cost control, and decision making to managerial responsibilities.
- develop a business plan for a fashion related business.
- create portfolios of fashion, wedding, and portrait photographs.
- analyze and demonstrate the steps of professional selling, including approach, needs assessment, presentation, overcoming objections and negotiating, closing, and servicing of the sale.
- describe how the advertising industry operates and produces advertising through the work of advertisers, agencies, media, and suppliers.
- explain how retailers use merchandise management decisions to implement their retail strategy, including planning, buying, pricing, branding, and promoting their merchandise.
- critique customer buying behavior and how it relates to fashion choices.

Career Information

This certificate prepares students for entry-level jobs in retail merchandising, such as department store buyers, boutique buyers, visual merchandisers, sales associates, management trainees, product developers and wholesalers. It also prepares students for self-employment or entrepreneurship.

Certificates

Apparel Construction Certificate

This certificate includes an introduction to the fashion industry and its job opportunities. It also provides the necessary background in fabrics, design elements, and sewing skills needed to enter the job market.

Certificate Requirements

Course Code	Course Title	Units
FASHN 300	Introduction to the Fashion Industry	3
FASHN 310	Fashion Analysis/Clothing Selection	3
FASHN 320	Textiles	3
FASHN 357	Apparel Construction I	3
FASHN 358	Apparel Construction II	3
Total Units:		**15**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify names and characteristics of various fibers and how they relate to the finished fabric.
- choose appropriate fabrics, notions, and tools for individual projects.
- create sample constructions utilizing basic and advanced sewing techniques.
- assemble and sew a garment using a commercial pattern.
- apply basic alterations to commercial patterns.
- utilize the elements and principles of design as they relate to fashion.

Career Information

This certificate prepares students for entry-level jobs in apparel production companies, designer workrooms, and custom sewing workrooms.

Fashion Entrepreneur Certificate

This certificate consists of four core fashion courses that explore entrepreneurial opportunities in the fashion industry. Topics include an introduction to the fashion industry, the creation of visual displays, retail buying, and development of a business plan. Students also choose 6 units from courses that include advertising, selling professionally, and fashion photography.

Certificate Requirements

Course Code	Course Title	Units
FASHN 300	Introduction to the Fashion Industry	3
FASHN 395	Visual Merchandising	3
FASHN 397	Fashion Retail Buying	3
FASHN 398	Fashion Entrepreneur	3
A minimum of 3 units from the following:		3
ARTPH 370	Fashion, Wedding, and Portrait Photography (3)	
FASHN 393	Fashion Promotion (3)	
MKT 310	Selling Professionally (3)	
MKT 312	Retailing (3)	
MKT 314	Advertising (3)	
Total Units:		**15**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- research various entrepreneurial opportunities in the fashion industry.
- plan and coordinate promotional activities through a visual display.
- research current trends, formulate stock plans, and calculate market purchases.
- formulate a business plan that relates to a specific fashion business.
- compare and analyze the technical, economic, and global influences on fashion marketing.

Career Information

This certificate prepares students to become an entrepreneur in the fashion industry. It addresses the creation of a fashion-oriented business. Career opportunities exist in visual merchandising, retail buying, Internet-based businesses, and small boutiques.

Fashion Illustration Certificate

This certificate provides the skills to be a fashion illustrator. Utilizing the elements and principles of design, topics include the awareness of apparel details and styles, drawing flats and fashion illustrations, and the creation of a personal style. Both freehand and computer illustration techniques are utilized.

Certificate Requirements

Course Code	Course Title	Units
ART 300	Drawing and Composition I	3
ART 304	Figure Drawing I	3
FASHN 310	Fashion Analysis/Clothing Selection	3
FASHN 342	Fashion Illustration I	3
FASHN 344	Fashion Illustration II	3
Total Units:		**15**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze the elements and principles of design and apply them to drawing fashion figures.
- produce a fashion figure drawn with correct proportions and planar structure.
- examine apparel details, styles, and elements, and apply them to a flat or illustration.
- develop a flat sketch or illustration utilizing computer software.
- create an illustration using fashion trends and target customers as inspiration.

Career Information

This certificate prepares students for entry-level jobs in the following areas: Assistant Designer, Design Room Assistant, Fashion Illustrator, Textile Colorist, Textile Croquis Painter, and Textile Designer. It also prepares students for self-employment or entrepreneurship.

Fashion Retailing Certificate

This certificate consists of three core fashion classes and a management class. Topics include an introduction to the fashion industry, product and apparel line development, retail management, and retail buying. Students choose an area of concentration that includes textile knowledge, fashion promotion, or retailing strategies.

Certificate Requirements

Course Code	Course Title	Units
FASHN 300	Introduction to the Fashion Industry	3
FASHN 342	Fashion Illustration I	3
FASHN 397	Fashion Retail Buying	3
MGMT 362	Techniques of Management	3
A minimum of 3 units from the following:		3
FASHN 320	Textiles (3)	
FASHN 393	Fashion Promotion (3)	
MKT 312	Retailing (3)	
Total Units:		**15**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- research various career opportunities in fashion retail.
- assess the primary retail management functions, including time management, cost control, and decision making.
- evaluate the process of successful apparel product development.
- identify and define a target retail customer.
- describe the characteristics of various textile fabrications in relation to their use in textile items.
- assess the role of various advertising media as related to the fashion industry including newspaper, television, radio, and the internet.

- compare and contrast various retail locations, including shopping centers and malls, central business districts, and nontraditional locations, such as airports and hospitals.

Career Information

This certificate prepares students for entry level jobs in fashion retailing, including department store manager trainees, small boutique associate managers, sales associates, assistant buyers, and image consultants.

Patternmaking and Draping Certificate

This certificate is intended for students who have completed the Apparel Construction Certificate and need to obtain a higher skill level in the field. It explores draping and advanced apparel construction techniques, and develops beginning, advanced, and computer patternmaking skills. It offers students the necessary sewing and patternmaking skills to enter the job market.

Certificate Requirements

Course Code	Course Title	Units
FASHN 374	Pattern Making and Design	3
FASHN 378	Advanced Pattern Making and Design	3
FASHN 379	Draping	3
A minimum of 3 units from the following:		3
FASHN 320	Textiles (3)	
FASHN 362	Tailoring Techniques (3)	
FASHN 370	Pattern Adjustment and Clothing Alterations (3)	
FASHN 380	Computer Patternmaking (3)	
FASHN 381	Couture Draping for Eveningwear (3)	
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- create samples for a technique book.
- identify appropriate fabrics, notions, and tools for a given project.
- examine basic pattern alterations and apply them to commercial and custom patterns.
- develop patterns using flat-pattern or draping methods.
- construct a garment utilizing basic or advanced sewing construction techniques.
- analyze basic fitting techniques and apply them to ready-to-wear and custom apparel garments.

Career Information

This certificate prepares students for entry-level jobs in apparel production and manufacturing companies, designer workrooms, and custom sewing workrooms. It also prepares students for self-employment or entrepreneurship. Examples of careers in fashion design include Assistant Designer, CADD Technician, First Pattern Maker, Production Pattern Maker, Sample Maker, Sewing Room Supervisor, and Tailor.

Runway Design Certificate

This certificate is intended for students who have completed the Patternmaking and Draping Certificate and need to obtain a higher level of competency in the field. It explores the social, cultural, and environmental influences of fashion trends on fashion design. It develops freehand and computer illustration techniques commonly used in the fashion industry. Apparel construction techniques are combined with patternmaking and draping skills to create couture quality garments. This program provides the necessary skills to create a garment for the runway, as well as explore entrepreneurial opportunities.

Certificate Requirements

Course Code	Course Title	Units
FASHN 342	Fashion Illustration I	3
FASHN 344	Fashion Illustration II	3
FASHN 382	Collection Design and Production	3
A minimum of 6 units from the following:		6
FASHN 362	Tailoring Techniques (3)	
FASHN 380	Computer Patternmaking (3)	
FASHN 381	Couture Draping for Eveningwear (3)	
FASHN 398	Fashion Entrepreneur (3)	
Total Units:		**15**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze and sketch style variations and interpret them in fabric.
- design and organize a fashion apparel line.
- recommend appropriate sewing equipment, supplies, and techniques for a given project.
- research entrepreneur opportunities and market segments in the fashion industry.
- create original patterns using flat pattern methods, draping techniques, or computer patternmaking software.
- construct a garment from an original pattern utilizing advanced sewing construction techniques.

Career Information

This certificate prepares students for entry level design-related jobs in apparel production companies, designer workrooms, and custom sewing workrooms. It also prepares students for self-employment or entrepreneurship. Examples of careers in Fashion Design include Assistant Designer, Designer, Design Room Assistant, Fashion Illustrator, Fashion Stylist, First Pattern Maker, Sample Maker, Sewing Room Supervisor, and Tailor.

Fashion (FASHN) Courses

FASHN 294 Topics in Fashion

Units: 0.5 - 4

Hours: 9 - 72 hours LEC

Prerequisite: None.

This course provides opportunities to study topics in fashion that are not included in current course offerings. Individualized topics may be developed in cooperation with the fashion industry to meet specialized training needs.

FASHN 300 Introduction to the Fashion Industry

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course is a survey of the complex diversity of today's fashion industry. It introduces the process of how the fashion business works in sequential order from the concept to the consumer. It also provides an overview of fashion design, production, distribution, and merchandising. Virtual, self-guided, or other innovative variations of field trips may be required.

FASHN 310 Fashion Analysis/Clothing Selection

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

General Education: Local GE L3

This course explores how social, political, cultural, technological, and environmental influences are reflected in current fashion trends. Attitude of dress, aesthetics, image projection, and gender roles are explored as a form of silent communication. Consumer buying behavior and the response towards fashion trends are examined from varying generational viewpoints. Other aspects of fashion analysis include identifying apparel details, styles, and utilizing the elements and principles of design as they relate to fashion.

FASHN 320 Textiles

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

This course is a study of natural and man-made fibers, methods of yarn and fabric production, methods of coloration, and finishes applied to yarns and fabrics. Topics include fiber chemistry; fiber, yarn, and textile production, properties, and performance; and textile specifications, regulations, testing, and innovations. It covers the selection, use, and care of fabrics as they relate to apparel, home furnishings, and sustainability.

FASHN 330 History of Western World Fashion

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course provides a comprehensive survey of how fashion has been influenced by major world historical events. Selected eras of history are viewed within a cultural, political, and economic context as expressed in dress. Emphasis includes cross-cultural influences on major fashion trends of the Western world from selected historical periods from the time of the Egyptians to the present. Virtual, self-guided, or other innovative variations of field trips may be required.

FASHN 334 Vintage Costuming

Same As: TA 434

Units: 0.5 - 2

Hours: 4.5 - 18 hours LEC; 13.5 - 54 hours LAB

Prerequisite: None.

Advisory: FASHN 357 or TA 430; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

This course covers the principles and techniques involved in developing and constructing period costumes and/or accessories through individual fabrication of costume pieces. The historical period or topic changes each semester. It is open to all skill levels, with basic knowledge of sewing recommended. This course is not open to students who have completed TA 434. Field trips may be required.

FASHN 342 Fashion Illustration I

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU

This course is an introduction to freehand fashion illustration. Illustration concepts unique to fashion are explored using various freehand drawing techniques with an emphasis on inclusivity of body type and shape. Design elements and principles including color, texture, line, balance, and apparel details are incorporated into the illustrations. Virtual, self-guided, or other innovative variation of field trips may be required.

FASHN 344 Fashion Illustration II

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: FASHN 342 with a grade of "C" or better

Transferable: CSU

This course builds on the skills acquired in FASHN 342. It emphasizes advanced design and illustration skills utilizing computer software. Topics include creating custom brushes and symbols, digital textile design and technical flats. The design process and layout techniques for fashion presentations are also introduced. Virtual, self-guided, or other innovative variation of field trips may be required.

FASHN 357 Apparel Construction I

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU

This course introduces basic apparel construction techniques. It emphasizes the development of sewing skills, the use and care of equipment, and selection of proper tools and fabric. No previous sewing experience is required. Virtual, self-guided, or other variation of field trips may be required.

FASHN 358 Apparel Construction II

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: FASHN 357 with a grade of "C" or better

Transferable: CSU

This course focuses on the application and evaluation of apparel construction techniques, fit, and basic pattern alterations. Current fashion fabrics and shaping materials are introduced. Emphasis is on developing advanced skills in garment construction. Virtual, self-guided, or other innovative variation of field trips may be required.

FASHN 359 Knitwear Construction

Units: 1.5

Hours: 18 hours LEC; 27 hours LAB

Prerequisite: FASHN 357 with a grade of "C" or better

Transferable: CSU

This course introduces basic knitwear apparel construction techniques. It emphasizes sewing equipment, supplies, and techniques specific to knits. Topics include knit fabric manipulation, knit pattern selection, and special knit construction techniques. A knit garment is created.

FASHN 362 Tailoring Techniques

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: FASHN 358 and 374 with grades of "C" or better

Transferable: CSU

This advanced apparel construction course introduces traditional and contemporary tailoring techniques. Topics include custom fitting, pattern work, fabric selection, and sewing methods specific to tailored garments. A lined tailored jacket or coat is created. Virtual, self-guided, or other variation of field trips may be required.

FASHN 363 Fashion Accessories and Embellishments

Units: 1.5

Hours: 18 hours LEC; 27 hours LAB

Prerequisite: FASHN 357 with a grade of "C" or better

Transferable: CSU

This course provides students with embellishment skills for trending fashion and couture level garments. Topics include embroidery, beading, fabric manipulation, applique, trims, and threadwork, with an emphasis on up-to-date interpretations of classic techniques.

FASHN 369 Intimate Apparel

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: FASHN 357, 358, and 374 with grades of "C" or better

Transferable: CSU

This course introduces a specialty area of fashion, the intimate apparel industry. It covers a brief history of lingerie. Topics include categories of intimate apparel, fabric, trim, and hardware. Hands-on work includes draping, patterning, and construction of garments. Samples are sewn to learn appropriate construction techniques and handling of specialty materials. It also covers the process of designing an original line of intimate apparel. Field trips may be required.

FASHN 370 Pattern Adjustment and Clothing Alterations

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: FASHN 310 and 358 with grades of "C" or better

Transferable: CSU

This course develops skills needed to fully understand garment fit. Topics include the identification of different body types and silhouettes, and common fit problems. Also covered is how to alter ready-to-wear garments and adjust patterns to fit a variety of common fit problems. Field trips may be required.

FASHN 374 Pattern Making and Design

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: FASHN 357 or TA 430 with a grade of "C" or better

Transferable: CSU

This course introduces the flat pattern method of apparel design. Pattern making techniques are perfected using half-scale patterns. Construction techniques are introduced for the completion of original designs. Virtual, self-guided, or other variation of field trips may be required.

FASHN 378 Advanced Pattern Making and Design

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: FASHN 358 and 374 with grades of "C" or better

Transferable: CSU

This course covers the creation of full-scale patterns, using advanced patternmaking techniques that include pattern drafting, flat patterning, duplicating ready-to-wear and grading. Full-scale garments are created from original designs, with an emphasis on fit and construction. Field trips may be required.

FASHN 379 Draping

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: FASHN 374 with a grade of "C" or better

Transferable: CSU

This course applies the skills developed in FASHN 374 and introduces draping techniques using industry dress forms. Activities include developing an original design concept, draping several blocks and slopers which utilize a variety of techniques, and executing a final garment in fashion fabric.

FASHN 380 Computer Patternmaking

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: FASHN 374 with a grade of "C" or better

Transferable: CSU

This advanced pattern drafting course introduces industry computer software. It makes comprehensive use of patternmaking skills acquired in FASHN 374 Patternmaking. Computer-aided patternmaking technology is used in pattern digitizing, drafting, manipulating, prototyping, and 3D virtual prototyping. Virtual, self-guided, or other variation of field trips may be required.

FASHN 381 Couture Draping for Eveningwear

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: FASHN 358 and 379 with grades of "C" or better

Transferable: CSU

This course introduces advanced draping skills for the creation of eveningwear. Topics include contouring techniques, foundation garments, advanced sewing skills, working with specialty fabrics, and custom fitting. Virtual, self-guided, or other variation of field trips may be required.

FASHN 382 Collection Design and Production

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: FASHN 358, 378, and 379 with grades of "C" or better

Transferable: CSU

This course applies the skills obtained in previous design and patternmaking courses. Topics include designing a small collection, creating and modifying patterns, and constructing original garments. It explores the role of mood boards, costing, tech packs, and accessories. Finished collections are presented on the runway in a fashion show. One field trip may be required.

FASHN 390 Alteration Shop

Units: 3

Hours: 18 hours LEC; 108 hours LAB

Prerequisite: FASHN 370 with a grade of "C" or better

Transferable: CSU

This course focuses on the operation and management of ready-to-wear garment alterations shop. It includes the study of starting an alterations business, local and government business rules and regulations, workroom supplies and equipment, workflow and scheduling, customer service, advertising and promotions, sales and costing, and performing garment alterations. Field trips may be required.

FASHN 393 Fashion Promotion

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU

This course is a comprehensive study of the promotion and presentation techniques unique to the fashion industry, including fashion advertising, publicity, and marketing. It focuses on special events, such as fashion shows and trunk shows. It also covers the development of planning and technical skills through a fashion show production. Field trips may be required.

FASHN 395 Visual Merchandising

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU

This course introduces current visual merchandising techniques, including equipment, lighting, and materials. The application of principles and practices in arranging and displaying fashion merchandise is covered. This practical experience with showcases, windows, and on-floor displays provides familiarity with professional fashion promotional presentations. Field trips may be required.

FASHN 397 Fashion Retail Buying

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course addresses the practical and business aspects of the fashion industry. Topics include defining the customer and researching current buying trends. Activities specific to fashion retail buying are explored, including developing a buying and stock plan and planning market purchases. Career opportunities in retail buying and merchandising are also explored. Virtual, self-guided, or other innovative variations of field trips may be required.

FASHN 398 Fashion Entrepreneur

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: BUS 100

Transferable: CSU

This course provides the necessary skills to become an entrepreneur in the fashion industry. It addresses the creation of a small business specific to fashion retail or apparel design and manufacturing. Topics include recognizing and creating business opportunities, as well as marketing and selling techniques. A model business plan is developed by exploring resources necessary to be successful in a fashion business.

FASHN 495 Independent Studies in Fashion

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

FASHN 498 Work Experience in Fashion

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Fashion Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of fashion. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

FASHN 499 Experimental Offering in Fashion

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Fire Technology

Overview

The Fire Technology program is dedicated to providing high quality training and educational programs for entry level and advanced level in-service instructional courses for those in paid and volunteer fire agencies. Our courses are categorized under the designations FT, FIRE, and FFS.

The FT courses are primarily degree/certificate applicable and include transferrable coursework to four-year colleges. These courses meet most fire agencies' minimum qualifications for employment in our region and throughout California.

The FIRE and FFS courses are typically offered off-campus through an affiliate agency and have special enrollment limitations, prerequisites, require a different registration process, and may not be routinely offered. These courses include California State Fire Training certificate courses managed by the California State Fire Marshal.

This program was established under the direction of the California Fire Technology Directors Association and the Sacramento Regional Fire Technology Advisory Board. The program offers both an intensive training course culminating in a Certificate of Achievement and an additional general education program leading to the Associate in Arts degree. Instructors in this program are experienced members of the fire service.

Degrees and Certificates Offered

A.A. in Fire Technology

Fire Technology Certificate

Firefighter Recruit Academy Certificate

Fire Inspector 1 Certificate

Fire Investigation 1A Certificate

Fire Investigation 1B Certificate

Fire Investigation 2A Certificate

Fire Investigation 2B Certificate

Dean: John McCormack

Academy Director: Kenneth Kwong

Phone: (916) 570-5000

Email: askhb-publicservice@arc.losrios.edu

Associate Degree

A.A. in Fire Technology

This program focuses on preparing for a career in the fire service. It includes educational opportunities for those currently employed within the fire service and those within volunteer fire agencies. Courses include those required for transfer to four-year colleges, those required to meet eligibility requirements for employment, and those required for incentive salary increases.

Degree Requirements

Course Code	Course Title	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
A minimum of 12 units from the following:		12
COMM C1004	Interpersonal Communication (3)	
COMM 325	Intercultural Communication (3)	
COMM 331	Group Discussion (3)	
EMT 110	Emergency Medical Technician (EMT) Didactic (6)	
and EMT 111	Emergency Medical Technician (EMT) Practicum (1)	
FT 100	Fire Service Conditioning and Fire Academy Preparation (2.5)	
FT 110	Fire Apparatus (3)	
FT 130	Fire Company Organization and Management (3)	
FT 141	Legal Aspects of Emergency Services (3)	
FT 170	Fire Investigation (3)	
FT 180	Rescue Practices (3)	
FT 190	Fire Tactics and Strategy (3)	
FT 192	Wildland Fire Control (3)	
FT 215	SFT Fire Fighter 1 Academy (11)	
FT 216	Fire Fighter 2 Academy (1.5)	
FT 217	Fire Fighter 1 Academy Module 1A (8)	
FT 218	Fire Fighter 1 Academy Module 1B (1)	
FT 219	Fire Fighter 1 Academy Module 1C (2)	
FT 310	Fire Service Hydraulics (3)	
FT 320	Hazardous Materials (3)	
Total Units:		**30**

The Fire Technology Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- complete the duties of an entry level firefighter.
- identify the fundamentals of the Incident Command System (ICS).
- compare and contrast the makeup of a moderate size fire department with a large fire department.
- describe the components of firefighting Personal Protective Equipment (PPE).
- compare and contrast modern PPE with antiquated PPE.
- analyze simulated fire situations for indicators of flashover versus backdraft potential and prescribe mitigation measures to prevent them from occurring.
- assess the fundamentals of physical science as they relate to the fire services: measurements, energy and work theories, power and transfer of heat principles, the laws of matter and the conservation of energy, and the exothermic chemical reaction called combustion.
- classify and compare various types of municipal water systems.
- describe the fundamentals of building construction and apply this knowledge to fire situations where forcible entry and overhaul evolutions may weaken the already fire-weakened structure.

- compare and contrast fire prevention versus fire suppression efforts.
- draft a pre-fire plan.
- evaluate and analyze the rate of fire spread in a structure fire.
- explain the physical and chemical properties of fire.
- describe how ICS is used by fire departments at emergencies.
- compare and contrast the makeup of a fully paid department with a volunteer fire department.

Career Information

Employment opportunities may be found in areas such as building inspection, fire investigation, fire prevention, hazardous materials specialist, public education, and firefighting.

Certificates of Achievement

Fire Technology Certificate

This program focuses on preparing for a career in the fire service. It includes educational opportunities for those currently employed within the fire service and those within volunteer fire agencies. Courses include those required for transfer to four-year colleges, those required to meet eligibility requirements for employment, and those required for incentive salary increases.

Certificate Requirements

Course Code	Course Title	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
A minimum of 12 units from the following:		12
COMM C1004	Interpersonal Communication (3)	
COMM 325	Intercultural Communication (3)	
COMM 331	Group Discussion (3)	
EMT 110	Emergency Medical Technician (EMT) Didactic (6)	
and EMT 111	Emergency Medical Technician (EMT) Practicum (1)	
FT 100	Fire Service Conditioning and Fire Academy Preparation (2.5)	
FT 110	Fire Apparatus (3)	
FT 130	Fire Company Organization and Management (3)	
FT 141	Legal Aspects of Emergency Services (3)	
FT 170	Fire Investigation (3)	
FT 180	Rescue Practices (3)	
FT 190	Fire Tactics and Strategy (3)	
FT 192	Wildland Fire Control (3)	
FT 215	SFT Fire Fighter 1 Academy (11)	
FT 216	Fire Fighter 2 Academy (1.5)	
FT 217	Fire Fighter 1 Academy Module 1A (8)	
FT 218	Fire Fighter 1 Academy Module 1B (1)	
FT 219	Fire Fighter 1 Academy Module 1C (2)	
FT 310	Fire Service Hydraulics (3)	
FT 320	Hazardous Materials (3)	
Total Units:		**30**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- complete the duties of an entry level firefighter.
- identify the fundamentals of the Incident Command System (ICS).
- compare and contrast the makeup of a moderate size fire department with a large fire department.
- describe the components of firefighting Personal Protective Equipment (PPE).
- compare and contrast modern PPE with antiquated PPE.
- analyze simulated fire situations for indicators of flashover versus backdraft potential and prescribe mitigation measures to prevent them from occurring.
- assess the fundamentals of physical science as they relate to the fire services: measurements, energy and work theories, power and transfer of heat principles, the laws of matter and the conservation of energy, and the exothermic chemical reaction called combustion.
- classify and compare various types of municipal water systems.
- describe the fundamentals of building construction and apply this knowledge to fire situations where forcible entry and overhaul evolutions may weaken the already fire-weakened structure.
- compare and contrast fire prevention versus fire suppression efforts.
- draft a pre-fire plan.
- evaluate and analyze the rate of fire spread in a structure fire.

- explain the physical and chemical properties of fire.
- describe how ICS is used by fire departments at emergencies.
- compare and contrast the makeup of a fully paid department with a volunteer fire department.

Career Information

Employment opportunities may be found in areas such as building inspection, fire investigation, fire prevention, hazardous materials specialist, public education, and firefighting.

Firefighter Recruit Academy Certificate

This program provides the knowledge necessary to assume the role of firefighter with the ability to work effectively and safely with the fire environment as well as within a company in the fire department in all functions of that company. Topics include indoctrination into the fire service, general maintenance, apparatus and equipment operations, fire control, wildland firefighting, emergency vehicle operations, salvage, fire prevention and public education, fire and arson investigation, rapid intervention crew tactics, vehicle extrication, physical fitness/wellness, emergency care, and forcible entry.

Certificate Requirements

Course Code	Course Title	Units
FIRE 1500	Firefighter Academy	11 -15
Total Units:		**11 - 15**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and describe the history, development, structure, organization and responsibility of the Fire Service
- define, identify and apply the components and principles of the Incident Command System
- explain the core values of the fire service and its duty of providing service delivery to the public
- perform preventative maintenance to fire station, apparatus and equipment
- demonstrate the use of fire department apparatus and tools within the scope of assignment
- explain and apply the basic concept of fire control, fire and arson investigation and fire communication systems
- identify and demonstrate basic skills in public education procedures and instruction
- interpret work place rules and laws regarding harassment/discrimination policies and mandated reporting procedures
- relate to wellness programs, stress management and approved academy physical fitness programs
- identify and demonstrate first responder responsibilities for handling medical emergencies
- identify first responder responsibilities for mitigation of hazardous material incidents
- choose safe driving procedures for emergency response vehicles
- apply principles of vehicle extraction
- apply fire suppression tactics and strategies
- interpret wild land fire behavior, suppression techniques and safety measures
- demonstrate firefighter rescue and survival skills

Certificates

Fire Inspector 1 Certificate

This program provides the knowledge necessary to assume the role of an entry level fire inspector within a fire department's fire prevention division.

Certificate Requirements

Course Code	Course Title	Units
FIRE 1704	Fire Inspector 1A: Duties and Administration	1.25
FIRE 1705	Fire Inspector 1B: Fire and Life Safety	1.25
FIRE 1706	Fire Inspector 1C: Field Inspection	1.25
FIRE 1707	Fire Inspector 1D: California Specific	0.75
FT 141	Legal Aspects of Emergency Services (3)	3
or FT 304	Fire Behavior and Combustion (3)	
Total Units:		**7.5**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify the administrative and field inspection duties of a Fire Inspector 1.
- identify the codes that give a fire inspector legal authority to conduct inspections in the state of California.
- identify the applicable codes or standards in order to reference the applicable documents, edition, and section for a given fire protection, fire prevention, or life safety issue.
- conduct a fire and life safety inspection in accordance with jurisdictional policies.

- identify and adhere to confidentiality and privacy policies throughout the inspection process.
- create a clear and concise inspection report based on observations made during a field inspection.
- recognize when construction plans are required.
- identify the steps needed to investigate common complaints, including documentation.
- understand what is needed to participate in legal proceedings.
- identify the construction type based on field observations, a description of the project and a description of the materials used.
- identify the occupancy classification of a single-use occupancy in accordance with applicable codes and standards.
- calculate the allowable occupant load of a single-use occupancy or portion thereof in accordance with applicable codes and standards.
- identify the means of egress elements and their operational status or compliance with applicable codes and standards.
- identify, document, and report deficiencies involving equipment, processes and operations and their applicable code and/or standard.
- identify conditions that will lead to hazardous fire growth potential within a building or space.
- calculate fire flow results from water supply data.
- recognize what is required for emergency plans and preparedness measures for various occupancy classifications.
- compare an approved plan to an existing fire protection system in order to identify, document, and report any modifications to the system in accordance with applicable codes and standards and jurisdictional policies.
- inspect emergency access for an existing system in order to ensure maintenance of the required access for emergency responders, and identify, document, and correct deficiencies in accordance with applicable codes and standards and jurisdictional policies.
- determine the operational readiness of existing fixed fire suppression systems in order to ensure operational readiness, document maintenance, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.
- determine the operational readiness of existing fire detection and alarm systems in order to ensure operational readiness, document maintenance, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policy.
- determine the operational readiness of existing portable fire extinguishers in order to ensure operational readiness, document maintenance, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.
- identify hazardous materials or substances by their properties in accordance with the basic principles of chemistry.
- verify code compliance for incidental storage, handling, and use of flammable and combustible liquids and gases in order to address applicable codes and standards and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.
- identify the requirements for temporary membrane structures.
- identify storage and handling requirements for safe and sane fireworks at fireworks stands.
- identify requirements for public fireworks display in order to verify that fireworks storage, handling, and use comply with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.
- identify requirements for proximate fireworks or special effects display in order to verify that fireworks storage, handling, and use comply with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.
- identify exterior hazards abatement on an existing property in order to verify compliance with applicable codes and standards, and identify, document, and report deficiencies and mitigation measures in accordance with applicable codes and standards and jurisdictional policies.

Fire Investigation 1A Certificate

This program provides participants with an introduction and basic overview of fire scene investigation. The focus of this course is to provide information in determining the area of fire origin in fires involving vehicles, structures, and wildland. Accidental and criminal fire causes are discussed in detail.

Certificate Requirements

Course Code	Course Title	Units
FIRE 1670	Fire Investigation 1A, Fire Cause and Origin Determination (2)	2
Total Units:		**2**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- distinguish the four different methods of heat transfer and compare their effects during a fire's progression
- choose the correct California Arson Law section when applying it to a factual situation
- recognize the elements necessary for the ignition and the sustained combustion of fuel and heat
- explain the elements required for an electrically caused fire to occur
- identify common scene indicators of arson and apply it to a factual situation
- describe the methodology required for a proper and thorough investigation of a structure, vehicle, and wildland fire
- differentiate between the different types of explosions and their unique effects

Fire Investigation 1B Certificate

This program expands on specific topics encountered by the fire investigator. These topics include detailed information on motives of fire setters; conducting a post blast scene; the investigation of a fire death; the recognition, collection, and preservation of evidence; interviewing and interrogation of witnesses and suspects; and the effect of a building's construction on the spread of fire.

Certificate Requirements

Course Code	Course Title	Units
FIRE 1671	Fire Investigation 1B, Techniques of Fire Investigation	2
Total Units:		**2**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- differentiate between the six common motives associated with fire setters
- examine a fire scene appraising the different safety hazardous associated with an investigation
- compare a fire scene investigation versus a post blast scene investigation
- examine a fire scene to determine the appropriate evidence to support a fire cause
- compare factures associated with an interview and an interrogation
- appraise a fire death scene to determine if a criminal act has occurred
- organize their case investigations utilizing proper case reports, resources, and insurance information

Fire Investigation 2A Certificate

This program provides information on how to investigate, apprehend, and convict arsonists. It focuses heavily on legal case preparation. Topics include interviewing and interrogating suspects, search and seizure, warrants, courtroom demeanor, and working with the district attorney's office.

Certificate Requirements

Course Code	Course Title	Units
FIRE 1672	Fire Investigation 2A	2
Total Units:		**2**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- differentiate among the three effects of an explosion.
- validate an arson corpus after examining a practical fire scene.
- appraise an explosion scene to determine if a criminal act has occurred.
- organize a fire investigation utilizing case reports, court exhibits, and testimony.
- differentiate between the U.S. Supreme Court's finding and California's Supreme Court's requirements in preparing a search warrant.
- recognize the elements necessary for the ignition and the sustained combustion of fuel and heat in a practical situation.
- describe the methodology and procedure required for a proper surveillance operation.

Fire Investigation 2B Certificate

This program provides advanced instruction in fire scene investigation, case preparation, and courtroom presentation. Topics include reviewing fire scene photography, sketching, evidence collection, interviewing and interrogation, and extensive use of simulations for developing and presenting an arson case in court.

Certificate Requirements

Course Code	Course Title	Units
FIRE 1673	Fire Investigation 2B	2
Total Units:		**2**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate the proper procedure of qualifying as an expert witness in fire origin and cause
- structure interview questions with witnesses and suspects in accordance with federal and state law requirements
- identify common scene indicators of arson and apply it to a practical situation
- examine a fire scene to determine the appropriate evidence needed to support a criminal fire cause
- verify an arson corpus after examining a criminal fire scene

Fire Technology (FT) Courses

FT 100 Fire Service Conditioning and Fire Academy Preparation

Units: 2.5

Hours: 20 hours LEC; 100 hours LAB

Prerequisite: None.

This course covers strength training, flexibility and overall physical conditioning to prepare a student to take the Candidate Physical Ability Test. Additional topics include personal skills development, lifestyle modifications, and firefighting equipment familiarization.

FT 109 Fire Fighter Capstone Testing

Units: 1

Hours: 20 hours LEC; 20 hours LAB

Prerequisite: Candidates must present a completed and signed State Required Instructional Psychomotor Skills Sheet at time of enrollment to verify they have met the requirements of the Office of the State Fire Marshal and applicable sections of the National Fire Protection Association professional qualification standards.

Advisory: Public Safety First Aid and CPR per California Health and Safety code 1797.182 or equivalent

This course prepares students to meet the State Fire Training (SFT) requirements for Fire Fighter 1 (FF1) and/or Fire Fighter 2 (FF2) capstone knowledge and skills testing. (Pass/No Pass Only)

FT 110 Fire Apparatus

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course covers various aspects of fire apparatus. Topics include design, typing, specifications, construction, performance capabilities, and maintenance. It also includes warning devices and the utilization of apparatus in fire service emergencies.

FT 130 Fire Company Organization and Management

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course explores the organization and management of a fire department and the relationship of government agencies to the fire service. It emphasizes fire service leadership from the perspective of the company officer. Topics include ethical conduct, challenges of supervision, organizational structure, communication, human resource management functions, and administrative functions.

FT 141 Legal Aspects of Emergency Services

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

This course addresses the federal, state, and local laws that regulate emergency services and include a review of national standards, regulations and consensus standards.

FT 170 Fire Investigation

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course introduces the general practices involved in fire investigation. Topics include determining the cause of fires (accidental, suspicious, and incendiary); types of fires; related laws; introduction to incendiary fires; motives for starting fires; recognizing and preserving evidence; interviewing witnesses and suspects; and arrest, detention, and court procedures.

FT 180 Rescue Practices

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

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.

FT 190 Fire Tactics and Strategy

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course is a basic requirement for all fire suppression personnel. Topics include the principles of fire control, utilization of staffing, equipment and placement, extinguishing agents, and fire control methods on the fireground.

FT 192 Wildland Fire Control

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course covers all aspects of wildland fire fighting and introduces advances in technology for wildland fire suppression. Topics include fire behavior, weather conditions, topography factors, safety, prevention, extinguishing methods, initial attack, Incident Command System (ICS), communications, aircraft assistances, hand crews, and bulldozer operation.

FT 215 SFT Fire Fighter 1 Academy

Units: 11

Hours: 125.75 hours LEC; 218.25 hours LAB

Prerequisite: None.

Enrollment Limitation: Public Safety First Aid and CPR per California Health and Safety code 1797.182 or equivalent

This course provides the knowledge necessary to assume the role of fire fighter with the ability to work effectively and safely within a fire agency. Topics include introduction to the fire service, fire fighter health and safety, self-contained breathing apparatus (SCBA), emergency scene operations, ropes and knots, hand and power tools, building construction and related hazards, fire behavior, fire hose use and maintenance, ground ladder operations, forcible entry, structural search and rescue operations, structural firefighting operations, ventilation techniques, overhaul, fire fighter survival, wildland firefighting techniques, tools and equipment, hazardous materials, and weapons of mass destruction.
Students who have successfully completed FIRE 1500 are not eligible to take this course. Pass/No Pass only.

FT 216 Fire Fighter 2 Academy

Units: 1.5

Hours: 20 hours LEC; 28 hours LAB

Prerequisite: FIRE 1500; Students may enroll in FT 216 in the same semester they enroll in FT 215.

This course provides the skills and knowledge needed for the fire fighter to take on increased leadership roles and responsibilities pertaining to fire department communications, fireground operations, rescue operations, and fire and life safety initiatives, preparedness, and maintenance. Pass/No Pass Only.

FT 217 Fire Fighter 1 Academy Module 1A

Units: 8

Hours: 80.25 hours LEC; 193.75 hours LAB

Prerequisite: Public Safety First Aid and CPR per California Health and Safety code 1797.182 or equivalent

This course is the first of a three-course series to prepare students for a career in the fire service. It provides the skills and knowledge needed for the entry-level fire fighter to perform structural suppression activities. Key learning concepts include fire fighter safety; communications; cleaning, maintaining, and utilizing equipment and tools; building construction and fire behavior; water supply; ladder operations;

forcing entry into a structure; conducting search and rescue operations; attacking an interior structure fire; horizontal and vertical ventilation; property conservation; fire scene overhaul; fire fighter survival; and fire suppression with Class A materials, vehicles, and ground cover. FT 217, FT 218, and FT 219 must be completed prior to testing for the Fire Fighter 1 certification. Pass/No Pass Only.

FT 218 Fire Fighter 1 Academy Module 1B

Units: 1

Hours: 15.5 hours LEC; 16.5 hours LAB

Prerequisite: None.

This course is the second of a three-course series to prepare students for a career in the fire service. It provides the awareness skills and knowledge needed for the entry-level fire fighter to recognize and identify hazardous materials and weapons of mass destruction (WMD), isolate hazards and deny entry, and initiate required notification. At the operations level, this course provides the skills and knowledge needed to identify incident scope; select, use, and inspect personal protective equipment (PPE); perform emergency decontamination; perform assigned tasks at a hazardous materials/WMD incident including product control techniques; and evaluate and report incident progress. FT 217, FT 218, and FT 219 must be completed prior to testing for the Fire Fighter 1 certification. Pass/No Pass Only.

FT 219 Fire Fighter 1 Academy Module 1C

Units: 2

Hours: 30 hours LEC; 36 hours LAB

Prerequisite: FT 217; If student takes Fire Fighter 1C as a stand-alone course.

Corequisite: FT 217; If a student takes Fire Fighter 1C – Wildland within an academy program or if co-enrolled in Fire Fighter 1A.

This course is the third course of a three-course series to prepare students for a career in the fire service. It provides the skills and knowledge needed for the entry-level fire fighter to recognize hazards and unsafe situations; don, doff, and maintain wildland personal protective equipment; deploy a fire shelter; maintain
suppression hand tools and equipment; assemble and prepare for response; construct and secure a fireline; reduce the threat of fire exposure to improved properties; and mop up and patrol a fire area when working with wildland fires. FT 217, FT 218, and FT 219 must be completed prior to testing for the Fire Fighter 1 certification. Pass/No Pass Only.

FT 295 Independent Studies in Fire Technology

Units: 1 - 3

Prerequisite: None.

FT 298 Work Experience in Fire Technology

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Fire Technology Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of fire technology. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to

four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

FT 299 Experimental Offering in Fire Technology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

FT 300 Fire Protection Organization

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

C-ID: C-ID FIRE 100X

This course provides an introduction to fire protection, its career opportunities, and related fire service fields. Topics include philosophy and history of fire protection, fire loss analysis, organization and function of public and private fire protection services, fire departments as part of local government, as well as laws and regulations affecting the fire service. Additionally, fire service nomenclature, specific fire protection functions, basic fire chemistry and physics, introduction to fire protection systems, and introduction to fire strategy and tactics, are covered.

FT 301 Fire Prevention Technology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

C-ID: C-ID FIRE 110X

This course provides fundamental knowledge relating to the field of fire prevention. Topics include history and philosophy of fire prevention,organization and operation of a fire prevention bureau,use and application of codes and standards,plans review,fire inspections,fire and life safety education,and fire investigation.

FT 302 Fire Protection Equipment and Systems

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course provides information relating to sprinkler design and the operation of fire detection and alarm systems. Topics include fire cause and effect, heat and smoke control systems, sprinkler systems, water supply for fire protection, standpipe systems, and portable fire extinguishers.

FT 303 Building Construction for Fire Protection

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers the components of building construction that relate to fire safety. Specific focus is on elements of construction and the design of structures that are shown to be key factors regarding inspecting of buildings, pre-planning fire operations, and emergency operations at fires. Topics include principles of fire and smoke growth, fire resistance construction, as well as wood, ordinary, steel, and concrete construction.

FT 304 Fire Behavior and Combustion

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

General Education: Local GE L5

This course covers the theories and fundamentals of how and why fires start and spread, and how they are controlled. Topics include an in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques.

FT 305 Firefighter Safety and Survival

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This 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. It emphasizes 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. This course emphasizes best safety practices before, during, and after the emergency incident.

FT 310 Fire Service Hydraulics

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Prealgebra; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course covers the theory of water hydraulics, hydraulic distribution systems, hydraulic practices, and extinguishing agents used with fire service hydraulics. Topics include the properties of water at rest and in motion, water velocity and discharge, distribution systems, fire service pumps, friction loss calculations, engine and nozzle pressures, and fire streams. This course also focuses on standpipe systems, automatic sprinkler systems, and foam systems.

FT 320 Hazardous Materials

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course is an introduction to hazardous materials, including physical properties, uses in industry, and characteristics when involved in spills, fires, and accidents. It covers emergency procedures, legal requirements, and compliance with regulations. Topics include flammable and combustible liquids, flammable and non-flammable compressed gases, flammable solids and combustible metals, oxidizing agents, poison gases and liquids, radioactive substances, and corrosive materials.

FT 495 Independent Studies in Fire Technology

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

FT 499 Experimental Offering in Fire Technology

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Funeral Service Education

Overview

The Funeral Service degree program prepares students for entry-level employment in the funeral service industry, provides a strong theory-based curriculum and related clinical experience reflective of the current industry standard, and maintains or exceeds the standards put forth by the accrediting board. ARC is one of only two community colleges in the state of California to offer a Funeral Service Education program.

Courses are designed to meet the prerequisite for licensure and employment in the funeral service industry as funeral directors and embalmers through courses in biology, chemistry, funeral service management, embalming, restorative art, funeral service fundamentals, counseling, accounting, and funeral service law and ethics. Coursework is conducted on the ARC campus, while the clinical component will be offered off-campus at local funeral industry sites.

The Funeral Service Education associate degree program at American River College is accredited by the American Board of Funeral Service Education (ABFSE), 992 Mantua Pike, Suite 108, Woodbury Heights, NJ 08097 (816) 233-3747.
Web: www.abfse.org (http://www.abfse.org/).

The United States Department of Labor maintains an excellent website that includes information on the nature of the work, working conditions, employment, training, advancement, job outlook, earnings, related occupations, and sources of additional information. Department of Labor Information (http://www.dol.gov/).

Program Information

Year	Total Enrolled	New Students	Grads	Timely Grad*	Grad Rate†	Didn't Finish‡	Overall Employed	Employed in FS
2025	87	49	38	38/38	100%	2	100%	100%
2024	90	44	29	29/29	100%	0	100%	100%
2023	45	33	14	14/14	100%	0	100%	100%

**Timely graduation = completed program in 1.5 times designated program length.*

†Graduation rate reflects cohort graduation rate (percent of students from original cohort completing in the designated year).

‡Left before completing the program; did not finish.

National Board Statistics - Arts

Year	Takers	School Pass Rate*	National Pass Rate
2025	59	61%	78%
2024	10	40%	78%
2023	21	76%	78%

**School pass rate is based on first time test takers within one year of graduation.*

National Board Statistics - Sciences

Year	Takers	School Pass Rate*	National Pass Rate
2025	58	47%	71%
2024	9	44%	73%
2023	22	64%	69%

**School pass rate is based on first time test takers within one year of graduation.*

National Board Examination pass rates, graduation rates, and employment rates for this and other ABFSE-accredited programs are available at: ABFSE Directory of Programs - California (https://www.abfse.org/html/dir-ca.html) in the Directory of Accredited Programs.

Degrees Offered

A.S. in Funeral Service Education

Dean: Narinedat Madramootoo

Department Chair: Valarie Rose

Phone: (916) 484-8902

Email: askhb-healthed@arc.losrios.edu

Associate Degree

A.S. in Funeral Service Education

This degree prepares students for entry-level positions in funeral service. It is designed to meet the prerequisites for licensure and employment in the field of funeral service as funeral directors or embalmers.

The central objective of an American Board of Funeral Service Education (ABFSE) accredited program must be to educate students in every phase of funeral service so that program graduates are prepared for entry-level employment in funeral service. In support of this objective, a program must adopt at least the following Program Learning Outcomes:

Upon completion of an accredited program, students will be able to:
1.) Explain the importance of funeral service professionals in developing relationships with the families and communities they serve.
2.) Identify standards of ethical conduct in funeral service practice.
3.) Interpret how federal, state, and local laws apply to funeral service in order to ensure compliance.
4.) Apply principles of public health and safety in the handling and preparation of human remains.
5.) Demonstrate technical skills in embalming and restorative art that are necessary for the preparation and handling of human remains.
6.) Demonstrate skills required for conducting arrangement conferences, visitations, services, and ceremonies.
7.) Describe the requirements and procedures for burial, cremation, and other accepted forms of final disposition of human remains.
8.) Describe methods to address the grief-related needs of the bereaved.
9.) Explain management skills associated with operating a funeral establishment.
10.) Demonstrate verbal and written communication skills and research skills needed for funeral service practice.

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Woodbury Heights, NJ 08097 (816) 233-3747. Web: www.abfse.org.

NOTE: All courses, including general education, require a grade of "C" or better, and the student must register to take the National Board Examination graduation.

The annual passage rate of first-time takers on the National Board Examination (NBE) for the most recent three-year period for this institution and all ABFSE accredited funeral service education programs is posted on the ABFSE website (https://www.abfse.org/html/dir-ca.html).

National Board Examination scores, graduation rates, and employment rates for this and other ABFSE-accredited programs are available at www.abfse.org. To request a printed copy of this program's scores and rates, go to Health and Education 770 or by email at rosev@arc.losrios.edu or by telephone at (916) 484-8145.

Degree Requirements

Course Code	Course Title	Units
Pre-FSE Semester:		
BIOL 304	Essentials of Human Anatomy and Physiology	4
FSE 300	Introduction to Funeral Service	2
1st Semester (Spring):		
CHEM 130	Chemistry for Funeral Service	4
FSE 310	Funeral Directing I	3
FSE 320	Funeral Service Law and Ethics	3
FSE 335	Funeral Service Management	3
BUS 105	Business Mathematics (3)	3[1]
or MATH 300	Introduction to Mathematical Ideas (3)	
Summer Semester (1st):		
FSE 340	Pathology for Funeral Service	2
2nd Semester (Fall):		
ANTH 310	Cultural Anthropology	3[2]
BIOL 130	Microbiology for Funeral Service	3
ENGL C1000	Academic Reading and Writing (3)	3[3]
or ENGL C1000H	Academic Reading and Writing - Honors (3)	
FSE 312	Funeral Directing II	3
FSE 330	Merchandising in the Funeral Service Industry	3
ACCT 101	Fundamentals of College Accounting	3
3rd Semester (Spring):		
BUS 340	Business Law	3
FSE 350	Restorative Art	3.5
FSE 360	Embalming I	4
RLST 301	Introduction to World Religions	3[4]
ETHNS 300	Introduction to Ethnic Studies	3[5]
Summer Semester (2nd):		
COMM C1000	Introduction to Public Speaking (3)	3
or COMM 331	Group Discussion (3)	
4th Semester (Fall):		
FSE 297	Practicum in Funeral Service Education	5
FSE 365	Embalming II	2
FSE 370	Funeral Service Counseling	3
PSYC 390	Psychology of Death and Dying	3
Total Units:		**74.5**

[1]or any 3-unit course meeting ARC GE Area L2 Mathematical Concepts and Quantitative Reasoning.

[2]or any 3-unit course meeting ARC GE Area L4 Social and Behavioral Sciences.

[3]or any 3-unit course meeting ARC GE Area L1A English Composition.

[4]or any 3-unit course meeting ARC GE Area L3 Arts and Humanities.

[5]or any 3-unit course meeting ARC GE Area L6 Ethnic Studies.

The Funeral Service Education Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Graduation from an accredited high school (graduates from outside the United States must have transcripts evaluated by an approved independent agency), or successful completion of the General Educational Development (GED) Test or California High School Proficiency Examination (CHSPE).
- Completion of, or in process of completing FSE 300 and BIOL 304 with grades of "C" or better in the pre-FSE semester. Students who completed BIOL 102 prior to Fall 2025 can use the course to meet the pre-FSE requirement.
- Minimum cumulative college GPA of 2.0.
- A Curriculum Planning Summary Sheet completed by an ARC counselor and dated within the semester the enrollment packet is submitted.
- A completed enrollment application.

Enrollment Process

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

- Pre-enrollment applications to the program may be obtained from the Health and Education Division Office, the Coordinator of the Funeral Service Education program, or at https://arc.losrios.edu/academics/programs-and-majors/funeral-service-education. The Funeral Service Education program currently accepts students once per year for the Spring semester which begins in January. The deadline to submit the application is by the last Friday in November.
- Only students who meet the enrollment requirements and follow the enrollment procedures will be considered for the program.
- Selection is based on a random selection process among eligible applicants should the number of applicants exceed available space in the program.
- Students admitted to the Funeral Service Education program are required to have a physical examination, laboratory and licensing agencies inoculations, drug screen, and background check by the completion of the first semester of the program. Students are responsible for any costs incurred related to meeting the health requirements.
- If a minimum number of qualified applicants are not received, enrollment will be delayed until the following semester, at which time applicants will be required to reapply.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- explain the importance of funeral service professionals in developing relationships with the families and communities they serve.
- identify standards of ethical conduct in funeral service practice.
- interpret how federal, state, and local laws apply to funeral service in order to ensure compliance.
- apply principles of public health and safety in the handling and preparation of human remains.
- demonstrate technical skills in embalming and restorative art that are necessary for the preparation and handling of human remains.
- demonstrate skills required for conducting arrangement conferences, visitations, services, and ceremonies.
- describe the requirements and procedures for burial, cremation, and other accepted forms of final disposition of human remains.
- describe methods to address the grief-related needs of the bereaved.
- explain management skills associated with operating a funeral establishment.
- demonstrate verbal and written communication skills and research skills needed for funeral service practice.

Career Information

The student is eligible to take the National Board Exam and state board examination to become a licensed funeral director in California. The student also meets the criteria to take the state embalmer's examination. As an accredited mortuary college, our program goals and objectives are as follows: ﷺTo prepare students to be members of a human services profession ﷺTo prepare students to be members of the community in which they serve ﷺTo be participants in the relationship between bereaved families and those engaged in the funeral service profession ﷺTo offer professional knowledge of and compliance with federal, state, provincial/territorial, and local regulatory guidelines ﷺTo be sensitive to the responsibility for public health, safety, and welfare in caring for human remains

Funeral Service Education (FSE) Courses

FSE 295 Independent Studies in Funeral Service Education

Units: 1 - 3

Prerequisite: None.

FSE 297 Practicum in Funeral Service Education

Units: 5

Hours: 18 hours LEC; 216 hours LAB

Prerequisite: BUS 340, FSE 350, and FSE 360 with grades of "C" or better

Corequisite: FSE 365 and 370

Enrollment Limitation: Students must show proof they have completed all general education and competency requirements for graduation. Students must show proof that they have created a student exam portal with the National Board Exam (The Conference) and that they have paid the fees associated with these exams.

This course provides an opportunity to apply instruction in funeral service education to real-world practice in the community. Students participate in an off-site lab experience program and approved off-campus preceptor sites. A portion of this course may be offered in a TBA component of 27-54 hours, which may include embalming, preparation, or documentation. In the first two weeks of the course, students will be required to show proof that they have created a student testing portal with the National Board Exam (The Conference), as well as paid for both their Arts and Sciences exams, which will be taken in the last two weeks of the course.

FSE 298 Work Experience in Funeral Services

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Funeral Services Department faculty to review specific certificate and degree work experience requirements.

Advisory: ENGL C1000, ENGL C1000H, or ESLW 340

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the funeral services field. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

FSE 299 Experimental Offering in Funeral Service Education

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

FSE 300 Introduction to Funeral Service

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course is a survey of the history of the funeral service industry and a comprehensive overview of the field of funeral service. It emphasizes the role and skills of the funeral service practitioner. This course provides insight into the funeral service industry and the career opportunities available. Field trips or interviews may be required.

FSE 310 Funeral Directing I

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: FSE 300 with a grade of "C" or better

Corequisite: CHEM 130 and FSE 320

Enrollment Limitation: Acceptance into the Funeral Service Education Program.

Transferable: CSU

This course introduces the general practices of funeral directing. It focuses on the sociological phenomena that affect all the elements of funeral service including cultural differences, family structures, and factors of change that relate to funeralization. It also includes notification of death, transfer and disposition of bodies, arrangement conferences, pre-planned funerals, and post-arrangement follow-up. Field trips

may be required. A portion of this course may be offered in a TBA component of 27-54 hours which may include embalming, preparation, or documentation.

FSE 312 Funeral Directing II

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: FSE 310 and 320 with grades of "C" or better

Corequisite: BIOL 130 and FSE 330

Enrollment Limitation: Student must be enrolled in the Funeral Service Education program to enroll in this course

Transferable: CSU

This course introduces the basic philosophies of a cross-section of religious and ethnic funeral practices and the role of the funeral practitioner in directing each type. It also includes procedures for fraternal, military, and celebrity funerals. A portion of this course may be offered in a TBA component of 27-54 hours which may include embalming, preparation, or documentation.

FSE 320 Funeral Service Law and Ethics

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Corequisite: CHEM 130 and FSE 310

Enrollment Limitation: Acceptance into the Funeral Service Education Program.

Transferable: CSU

This course introduces law and the judicial system as they pertain to the funeral industry. Topics include sources of law, the legal status of a dead human body, the duty of burial, rights to control funeral arrangements and final disposition, liability for funeral expenses, torts involving the dead human body and the funeral director, wills, estates, probate, cemeteries, crematories, and state and federal laws and regulations. Personal and professional ethics that guide decisions and actions in the proper treatment of the dead are also included.

FSE 330 Merchandising in the Funeral Service Industry

Units: 3

Hours: 54 hours LEC

Prerequisite: FSE 310 and 320 with grades of "C" or better

Corequisite: BIOL 130 and FSE 312

Enrollment Limitation: Acceptance into the Funeral Service Education Program.

Transferable: CSU

This course introduces merchandising as it applies to the funeral service profession. The curriculum is divided into two main sections. The first covers construction and features of caskets, outer burial containers, and other funeral-related products. The second section examines methods of pricing, display, presentation, and control of funeral merchandise. Field trips, in-person or virtual, may be required.

FSE 335 Funeral Service Management

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Enrollment Limitation: Acceptance into the Funeral Service Education Program.

Transferable: CSU

This course introduces the basic principles of management as they apply to the practice of the funeral profession. It explores the role and function of an effective manager, emphasizing the functions of planning, organizing, motivating, directing, and controlling. Specific areas of funeral service practice and managerial guidelines for those areas are covered. Topics also include management theory as it relates to funeral service practice. Field trips, in-person or virtual, may be required.

FSE 340 Pathology for Funeral Service

Units: 2

Hours: 36 hours LEC

Prerequisite: CHEM 130 with a grade of "C" or better

Enrollment Limitation: Acceptance into the Funeral Service Education program.

Transferable: CSU

This course offers a study of pathological disease conditions and how they affect various parts of the body. It emphasizes particular conditions that relate to or affect the embalming or restorative art process.

FSE 350 Restorative Art

Units: 3.5

Hours: 54 hours LEC; 27 hours LAB

Prerequisite: None.

Corequisite: FSE 360

Enrollment Limitation: Acceptance into the Funeral Service Education program.

Transferable: CSU

This course introduces the techniques of creating an acceptable physical appearance of the deceased for the benefit of the survivors. Topics include the study of facial features, cosmetics, and restorative treatment for a variety of situations faced by the practitioner.

FSE 360 Embalming I

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: CHEM 130 with a grade of "C" or better

Corequisite: FSE 350

Enrollment Limitation: Acceptance into the Funeral Service Education program.

Transferable: CSU

This course introduces the phenomenon of death in the human body. It includes the processes of preservation, restoration, and sanitation in treating the dead human body. Field trips may be required. A portion of this course may be offered in a TBA component of 27-54 hours which may include embalming, preparation, or documentation.

FSE 365 Embalming II

Units: 2

Hours: 36 hours LEC

Prerequisite: FSE 350 and 360 with grades of "C" or better

Corequisite: FSE 297 and 370

Transferable: CSU

This course is a continuation of FSE 360. It is the study of vascular anatomy, case analysis, the selection and injection of embalming fluids, and treatment of specific conditions requiring special attention.

FSE 370 Funeral Service Counseling

Units: 3

Hours: 54 hours LEC

Prerequisite: FSE 350 and 360 with grades of "C" or better

Corequisite: FSE 297 and 365

Enrollment Limitation: Student must be enrolled in the Funeral Service Education program to enroll in this course.

Transferable: CSU

This course examines communication skills and the role of the funeral director as facilitator, counselor, and caregiver. Topics include specific communication and counseling techniques as they are applied in funeral service practice as well as normal and abnormal grief reactions, children and death, crisis intervention counseling, and dealing with stress and burnout. Field trips, in-person or virtual, may be required.

General Education - Transfer

Overview

American River College offers certificates of achievement to satisfy the general education requirements for the California State University (CSU) system or the Intersegmental General Education Transfer Curriculum (IGETC).

Certificates Offered

Cal-GETC Certificate

Honors Transfer Certificate

Dean: Nisha Beckhorn

Phone: (916) 484-8572

Email: counseling@arc.losrios.edu

Certificates of Achievement

Cal-GETC Certificate

This certificate is designed for students planning to transfer to a California State University (CSU) or University of California (UC) campus. It ensures that the student has met the lower division General Education/Breadth requirements for all CSU and UC campuses.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 34 units from the following:		34
Students must complete a minimum of 34 units used to satisfy the Cal-GETC certification requirements. See the Cal-GETC pattern in the American River College (ARC) catalog or consult with an ARC counselor.		
Total Units:		**34**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate effective expository and persuasive writing skills.
- develop a reasoned solution to a problem.
- explain the values of a culture as expressed through its art or language.
- evaluate the methods of inquiry and evidence used in the behavioral and social sciences.
- evaluate new and accepted ideas about the natural universe using testable methodology.

Honors Transfer Certificate

The American River College (ARC) Honors Program is a community of students and faculty who are dedicated to the pursuit of intellectual and personal enrichment in a diverse and challenging academic environment.

Students with a cumulative GPA of 3.2 or better who have completed at least 15 units of approved Honors coursework earn a Certificate of Achievement noted on the transcript. A maximum of 6 units of Honors coursework may be transferred from other colleges. Some courses may need to be petitioned.

Most courses in the certificate fulfill requirements for the ARC A.A., A.S., A.A.-T., A.S.-T. degrees, and the California General Education Transfer Curriculum (Cal-GETC) Pattern. Check with an ARC counselor for exceptions.

Completion of the certificate with a cumulative grade point average (GPA) of 3.2 or better allows students to take advantage of transfer agreements with highly selective colleges and universities through the Honors Transfer Council of California and to participate in the Transfer Alliance Program at UCLA. Honors students must meet with a counselor to ensure completion of ARC graduation and/or transfer requirements. In addition, Honors students should meet regularly with an Honors faculty advisor to ensure completion of the Honors certificate in a timely fashion.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 15 units from the following:		15[1]
ANTH 480	Honors Biological Anthropology (3)	
ANTH 481	Honors Cultural Anthropology (3)	
ASTR 481	Honors Astronomy: Stars, Galaxies, and Cosmology (4)	
BIOL 482	Honors Marine Biology (4)	
CISP 480	Honors Introduction to Structured Programming (5)	
ENGL C1000H	Academic Reading and Writing - Honors (3)	
ENGL 481	Honors College Composition and Literature (3)	
ENGL C1001H	Critical Thinking and Writing - Honors (3)	
HIST 480	History of Western Civilization - Honors (3)	
HIST 481	History of Western Civilization - Honors (3)	
HIST C1001H	United States History to 1877 - Honors (3)	
HIST C1002H	United States History since 1865 - Honors (3)	
NUTRI 481	Honors - Cultural Foods of the World (3)	
POLS 480	Introduction to International Relations - Honors (3)	
POLS C1000H	American Government and Politics - Honors (3)	
PSYC C1000H	Introduction to Psychology - Honors (3)	
PSYC 481	Honors Abnormal Behavior (3)	
SOC 480	Introductory Sociology - Honors (3)	
STAT C1000H	Introduction to Statistics - Honors (4)	
Total Units:		**15**

[1]Up to six units of the Honors Certificate may be earned with non-Honors coursework for which there is an Honors Contract. Contact the Honors Coordinator for details.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze the broad areas of human knowledge that contribute to purposeful and meaningful lives.
- incorporate argumentative reasoning and logic involved in the process of advanced problem-solving in an academic setting.
- investigate advanced methods of inquiry and analysis employed in a variety of disciplines.
- justify personal accomplishments as a highly motivated, self-directed individual in an advanced academic setting.
- demonstrate cultural competence in a diverse academic setting.

General Science

Overview

This program provides a broad study in the fields of biological and physical sciences in preparation for transfer to a four-year program and continuation of studies in upper division science courses.

Degrees Offered

A.S. in General Science

Dean: Joel Keebler

Phone: (916) 484-8107

Email: ARC-8107@losrios.edu

Associate Degree

A.S. in General Science

This program provides a broad study in the fields of biological and physical sciences in preparation for transfer to a four-year program and continuation of studies in upper division science courses.

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18[1]
Physical Science Courses		
ASTR C1001	Introduction to Astronomy (3)	
ASTR 310	The Solar System (3)	
ASTR 320	Stars, Galaxies, and Cosmology (3)	
ASTR 330	Introduction to Astrobiology (3)	
ASTR C1001L	Introduction to Astronomy Lab (1)	
ASTR 481	Honors Astronomy: Stars, Galaxies, and Cosmology (4)	
ASTR 495	Independent Studies in Astronomy (1 - 3)	
ASTR 499	Experimental Offering in Astronomy (0.5 - 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 310	Chemical Calculations (4)	
CHEM 338	Chemistry In Your World (3)	
CHEM 400	General Chemistry I (5)	
CHEM 401	General Chemistry II (5)	
CHEM 420	Organic Chemistry I (5)	
CHEM 421	Organic Chemistry II (5)	
CHEM 423	Organic Chemistry - Short Survey (5)	
CHEM 495	Independent Studies in Chemistry (1 - 3)	
CHEM 499	Experimental Offering in Chemistry (0.5 - 4)	
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)	
GEOG 307	Environmental Hazards and Natural Disasters (3)	
GEOG 308	Introduction to Oceanography (3)	
GEOG 309	Introduction to Oceanography Lab (1)	
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 495	Independent Studies in Geography (1 - 3)	
GEOG 499	Experimental Offering in Geography (0.5 - 4)	
GEOL 300	Physical Geology (3)	
GEOL 301	Physical Geology Laboratory (1)	

Course Code	Course Title	Units
GEOL 305	Earth Science (3)	
GEOL 306	Earth Science Laboratory (1)	
GEOL 310	Historical Geology (3)	
GEOL 311	Historical Geology Laboratory (1)	
GEOL 320	Global Climate Change (3)	
GEOL 325	Environmental Hazards and Natural Disasters (3)	
GEOL 330	Introduction to Oceanography (3)	
GEOL 331	Introduction to Oceanography Lab (1)	
GEOL 345	Geology of California (3)	
GEOL 392	Field Studies in Mountain Landscapes (1 - 4)	
GEOL 393	Field Studies in Coastal Landscapes (1 - 4)	
GEOL 394	Field Studies in Volcanic Landscapes (1 - 4)	
GEOL 495	Independent Studies in Geology (1 - 3)	
GEOL 499	Experimental Offering in Geology (0.5 - 4)	
PHYS 310	Conceptual Physics (3)	
PHYS 311	Basic Physics (3)	
PHYS 312	Conceptual Physics Laboratory (1)	
PHYS 350	General Physics (4)	
PHYS 360	General Physics (4)	
PHYS 410	Mechanics of Solids and Fluids (5)	
PHYS 421	Electricity and Magnetism (4)	
PHYS 431	Heat, Waves, Light and Modern Physics (4)	
PHYS 495	Independent Studies in Physics (1 - 3)	
PHYS 499	Experimental Offering in Physics (0.5 - 4)	
Biological Science Courses		
ANTH 300	Biological Anthropology (3)	
ANTH 301	Biological Anthropology Laboratory (1)	
ANTH 303	Introduction to Forensic Anthropology (3)	
ANTH 370	Primatology (3)	
ANTH 480	Honors Biological Anthropology (3)	
ANTH 495	Independent Studies in Anthropology (1 - 3)	
ANTH 499	Experimental Offering in Anthropology (0.5 - 4)	
BIOL 300	The Foundations of Biology (3)	
BIOL 301	Evolution (3)	
BIOL C1000	Introduction to Biology with Lab (4)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
BIOL 305	Natural History (4)	
BIOL 310	General Biology (4)	
BIOL 322	Ethnobotany (3)	
BIOL 332	Introduction to Ornithology (4)	
BIOL 342	The New Plagues: New and Ancient Infectious Diseases Threatening World Health (3)	
BIOL 352	Conservation Biology (3)	
BIOL 370	Marine Biology (4)	
BIOL 375	Marine Ecology (3)	
BIOL 390	Natural History Field Study (0.5 - 4)	
BIOL 400	Principles of Biology (5)	
BIOL 410	Principles of Botany (5)	
BIOL 415	Introduction to Biology: Biodiversity, Evolution, and Ecology (5)	
BIOL 420	Principles of Zoology (5)	
BIOL 430	Anatomy and Physiology (5)	
BIOL 431	Anatomy and Physiology (5)	

Course Code	Course Title	Units
BIOL 440	General Microbiology (4)	
BIOL 442	General Microbiology and Public Health (5)	
BIOL 482	Honors Marine Biology (4)	
BIOL 495	Independent Studies in Biology (1 - 3)	
BIOL 499	Experimental Offering in Biology (0.5 - 4)	
BIOT 301	Biotechnology and Human Health (3)	
BIOT 305	Introduction to Bioinformatics (1)	
BIOT 307	Biotechnology and Society (2)	
BIOT 311	Biotechnology Laboratory Methods - Molecular Techniques (2)	
BIOT 312	Biotechnology Laboratory Methods - Microbial and Cell Culture Techniques (2)	
BIOT 499	Experimental Offering in Biology (0.5 - 4)	
NATR 300	Introduction to Natural Resource Conservation and Policy (4)	
NATR 301	Introduction to Ornithology (4)	
NATR 302	Introduction to Wildlife Biology (4)	
NATR 303	Energy and Sustainability (3)	
NATR 304	The Forest Environment (3)	
NATR 305	Fisheries Ecology and Management (4)	
NATR 306	Introduction to Rangeland Ecology and Management (4)	
NATR 307	Principles of Sustainability (4)	
NATR 310	Study Design and Field Methods (4)	
NATR 320	Principles of Ecology (4)	
NATR 322	Environmental Restoration (3)	
NATR 324	Field Studies: Birds and Plants of the High Sierra (2)	
NATR 330	Native Trees and Shrubs of California (4)	
NATR 332	Wildflowers of California (4)	
NATR 346	Water Resources and Conservation (3)	
NATR 495	Independent Studies in Natural Resources (1 - 3)	
NATR 499	Experimental Offering in Natural Resources (0.5 - 4)	
PSYC 310	Biological Psychology (3)	
PSYC 311	Biological Psychology Laboratory (1)	
Total Units:		**18**

[1]must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science

The General Science Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate new and accepted ideas about the natural universe using scientific methods.
- analyze a wide variety of natural phenomena using basic definitions and fundamental theories of biological or physical sciences.
- apply appropriate quantitative and qualitative methods to interpret and analyze pertinent data.
- outline the basic concepts and fundamental theories of a natural science.
- articulate orally and/or in writing the importance of continuous examination and modification of accepted ideas as a fundamental element in the progress of science.
- discuss ethical components of scientific decision making and apply personal and social values within the process of decision making in scientific endeavors.

General Science (GENSCI) Courses

GENSCI 90 Science Skills and Strategies I

Units: 0.5

Hours: 27 hours LAB

Prerequisite: None.

Corequisite: Current enrollment in a science, nutrition, or nursing course.

This course offers individualized instructional modules designed to acquire or improve study strategies and skills for various science, nursing, or nutrition courses. Students learn and apply skills and strategies, such as science textbook comprehension, principles of learning and retention, note taking, annotating, discipline-based vocabulary, paraphrasing, reading graphics, test taking, scientific writing, and problem solving. This course is offered in a flexible To Be Arranged (TBA) format, allowing students to complete 27 laboratory hours on a schedule that works best for them. Students will arrange times that meet course requirements while accommodating individual availability. Registration is open through the tenth week of the semester. Pass/No Pass only.

GENSCI 91 Science Skills and Strategies II

Units: 0.5

Hours: 27 hours LAB

Prerequisite: None.

Corequisite: Current enrollment in a science, nutrition, or nursing course.

Transferable: CSU

This course offers individualized instructional modules designed to acquire or improve study strategies for science, nursing, or nutrition courses. Students learn and apply skills and strategies, such as goal setting, the intensive study cycle, graphic organizers, constructing and interpreting graphs, mastering science vocabulary, self-monitoring while reading, coding method of reading, and advanced problem solving. This course is offered in a flexible To Be Arranged (TBA) format, allowing students to complete 27 laboratory hours on a schedule that works best for them. Students will arrange times that meet course requirements while accommodating individual availability. Pass/No Pass only.

GENSCI 299 Experimental Offering in General Science

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

GENSCI 499 Experimental Offering in General Science

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Geography and GIS

Overview

Geography is the science of space and place on Earth's surface. It focuses on the physical and human phenomena that make up the world's environments and places. Geographers describe the changing spatial patterns of places in words, maps, and graphics. Geography's continuing quest is to understand the physical and cultural features of places and their settings on the surface of Earth.

GIS is one of the fastest growing career fields in North America. It is a computer-based tool used to map, manage, analyze, display, and model spatial information. A GIS is a data management system capable of analyzing patterns and relationships between many different layers of mapped data simultaneously. Advantages of a GIS compared with a traditional map are the ability of the user to quickly alter the display properties, modify or introduce new data, and manipulate analysis results by changing input parameters and modifying the assumptions.

Degrees and Certificates Offered

A.A.-T. in Geography

A.S. in General Science

A.S. in Geographic Information Systems (GIS)

A.S. in Geography

Geographic Information Systems (GIS) Certificate

Dean: Joel Keebler

Department Chair: Hugh Howard

Phone: (916) 484-8107

Email: askhb-STEM@arc.losrios.edu

Associate Degrees for Transfer

A.A.-T. in Geography

The Associate in Arts in Geography for Transfer (AA-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with

junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Geography at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (Pursuant to SB1440, §66746):

• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

ADTs also require that students must earn a "C" or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
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)	3
or GEOG 320	World Regional Geography (3)	
List A:		
A minimum of 6 units from the following:		6
Any course from the Required Core not already used or		
GEOG 306	Weather and Climate (3)	
GEOG 322	Geography of California (3)	
GEOG 331	Exploring Maps and Geographic Technologies (3)	
GEOG 334	Introduction to GIS Software 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)	
List B:		
A minimum of 6 units from the following:		6
Any courses from List A not already used or		
ANTH 310	Cultural Anthropology (3)	
or ANTH 481	Honors Cultural Anthropology (3)	
GEOG 305	Global Climate Change (3)	
or GEOL 320	Global Climate Change (3)	
GEOG 307	Environmental Hazards and Natural Disasters (3)	
or GEOL 325	Environmental Hazards and Natural Disasters (3)	
GEOG 308	Introduction to Oceanography (3)	
or GEOL 330	Introduction to Oceanography (3)	
GEOG 309	Introduction to Oceanography Lab (1)	
or GEOL 331	Introduction to Oceanography Lab (1)	
GEOG 330	Introduction to Geographic Information Systems (3)	
GEOG 340	Cartographic Design for GIS (3)	
GEOG 342	Introduction to Remote Sensing and Digital Image Processing (3)	
GEOG 344	Spatial Analysis and Modeling in GIS (3)	
GEOG 350	Data Acquisition in GIS (3)	
GEOG 360	Database Design and Management in GIS (3)	
GEOG 362	Advanced Database Design and Management in GIS (3)	
GEOG 375	Introduction to GIS Programming (3)	
GEOG 385	Introduction to Web Based GIS Application Development (3)	
GEOL 300	Physical Geology (3)	
STAT C1000	Introduction to Statistics (4)	
or ECON 310	Statistics for Business and Economics (3)	
or PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
Total Units:		**19**

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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe the general content and scope of baccalaureate-level geography studies.

- compare and contrast the general biophysical and sociocultural differences and similarities among world regions.
- interpret maps and mapped data utilizing basic map elements, including scales, common coordinate systems, and map symbols.
- compare and contrast common geospatial technologies such as Geographic Information Systems (GIS), Global Positioning System (GPS), and remote sensing.
- evaluate and analyze common geographic problems and their solutions.
- list and describe at least three career options for geographers.

Career Information

The opportunities for geographers are as varied as the scope of geography itself. Geographers are found throughout the public and private sector, though rarely in positions with the title of Geographer. When combined with appropriate internships and/or other work experience, a baccalaureate degree in geography is excellent preparation for careers in natural resource management, environmental consulting, urban and regional planning, and elementary and secondary teaching. Geographic skills and knowledge are also quite valuable in diverse fields such as real estate, marketing, and demography.

Associate Degrees

A.S. in General Science

This program provides a broad study in the fields of biological and physical sciences in preparation for transfer to a four-year program and continuation of studies in upper division science courses.

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18[1]
Physical Science Courses		
ASTR C1001	Introduction to Astronomy (3)	
ASTR 310	The Solar System (3)	
ASTR 320	Stars, Galaxies, and Cosmology (3)	
ASTR 330	Introduction to Astrobiology (3)	
ASTR C1001L	Introduction to Astronomy Lab (1)	
ASTR 481	Honors Astronomy: Stars, Galaxies, and Cosmology (4)	
ASTR 495	Independent Studies in Astronomy (1 - 3)	
ASTR 499	Experimental Offering in Astronomy (0.5 - 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 310	Chemical Calculations (4)	
CHEM 338	Chemistry In Your World (3)	
CHEM 400	General Chemistry I (5)	
CHEM 401	General Chemistry II (5)	
CHEM 420	Organic Chemistry I (5)	
CHEM 421	Organic Chemistry II (5)	
CHEM 423	Organic Chemistry - Short Survey (5)	
CHEM 495	Independent Studies in Chemistry (1 - 3)	
CHEM 499	Experimental Offering in Chemistry (0.5 - 4)	
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)	
GEOG 307	Environmental Hazards and Natural Disasters (3)	
GEOG 308	Introduction to Oceanography (3)	
GEOG 309	Introduction to Oceanography Lab (1)	
GEOG 391	Field Studies in Geography: Mountain Landscapes (1 - 4)	
GEOG 392	Field Studies in Geography: Coastal Landscapes (1 - 4)	

Course Code	Course Title	Units
GEOG 393	Field Studies in Geography: Arid Landscapes (1 - 4)	
GEOG 394	Field Studies in Geography: Volcanic Landscapes (1 - 4)	
GEOG 495	Independent Studies in Geography (1 - 3)	
GEOG 499	Experimental Offering in Geography (0.5 - 4)	
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)	
GEOL 320	Global Climate Change (3)	
GEOL 325	Environmental Hazards and Natural Disasters (3)	
GEOL 330	Introduction to Oceanography (3)	
GEOL 331	Introduction to Oceanography Lab (1)	
GEOL 345	Geology of California (3)	
GEOL 392	Field Studies in Mountain Landscapes (1 - 4)	
GEOL 393	Field Studies in Coastal Landscapes (1 - 4)	
GEOL 394	Field Studies in Volcanic Landscapes (1 - 4)	
GEOL 495	Independent Studies in Geology (1 - 3)	
GEOL 499	Experimental Offering in Geology (0.5 - 4)	
PHYS 310	Conceptual Physics (3)	
PHYS 311	Basic Physics (3)	
PHYS 312	Conceptual Physics Laboratory (1)	
PHYS 350	General Physics (4)	
PHYS 360	General Physics (4)	
PHYS 410	Mechanics of Solids and Fluids (5)	
PHYS 421	Electricity and Magnetism (4)	
PHYS 431	Heat, Waves, Light and Modern Physics (4)	
PHYS 495	Independent Studies in Physics (1 - 3)	
PHYS 499	Experimental Offering in Physics (0.5 - 4)	
Biological Science Courses		
ANTH 300	Biological Anthropology (3)	
ANTH 301	Biological Anthropology Laboratory (1)	
ANTH 303	Introduction to Forensic Anthropology (3)	
ANTH 370	Primatology (3)	
ANTH 480	Honors Biological Anthropology (3)	
ANTH 495	Independent Studies in Anthropology (1 - 3)	
ANTH 499	Experimental Offering in Anthropology (0.5 - 4)	
BIOL 300	The Foundations of Biology (3)	
BIOL 301	Evolution (3)	
BIOL C1000	Introduction to Biology with Lab (4)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
BIOL 305	Natural History (4)	
BIOL 310	General Biology (4)	
BIOL 322	Ethnobotany (3)	
BIOL 332	Introduction to Ornithology (4)	
BIOL 342	The New Plagues: New and Ancient Infectious Diseases Threatening World Health (3)	
BIOL 352	Conservation Biology (3)	
BIOL 370	Marine Biology (4)	
BIOL 375	Marine Ecology (3)	

Course Code	Course Title	Units
BIOL 390	Natural History Field Study (0.5 - 4)	
BIOL 400	Principles of Biology (5)	
BIOL 410	Principles of Botany (5)	
BIOL 415	Introduction to Biology: Biodiversity, Evolution, and Ecology (5)	
BIOL 420	Principles of Zoology (5)	
BIOL 430	Anatomy and Physiology (5)	
BIOL 431	Anatomy and Physiology (5)	
BIOL 440	General Microbiology (4)	
BIOL 442	General Microbiology and Public Health (5)	
BIOL 482	Honors Marine Biology (4)	
BIOL 495	Independent Studies in Biology (1 - 3)	
BIOL 499	Experimental Offering in Biology (0.5 - 4)	
BIOT 301	Biotechnology and Human Health (3)	
BIOT 305	Introduction to Bioinformatics (1)	
BIOT 307	Biotechnology and Society (2)	
BIOT 311	Biotechnology Laboratory Methods - Molecular Techniques (2)	
BIOT 312	Biotechnology Laboratory Methods - Microbial and Cell Culture Techniques (2)	
BIOT 499	Experimental Offering in Biology (0.5 - 4)	
NATR 300	Introduction to Natural Resource Conservation and Policy (4)	
NATR 301	Introduction to Ornithology (4)	
NATR 302	Introduction to Wildlife Biology (4)	
NATR 303	Energy and Sustainability (3)	
NATR 304	The Forest Environment (3)	
NATR 305	Fisheries Ecology and Management (4)	
NATR 306	Introduction to Rangeland Ecology and Management (4)	
NATR 307	Principles of Sustainability (4)	
NATR 310	Study Design and Field Methods (4)	
NATR 320	Principles of Ecology (4)	
NATR 322	Environmental Restoration (3)	
NATR 324	Field Studies: Birds and Plants of the High Sierra (2)	
NATR 330	Native Trees and Shrubs of California (4)	
NATR 332	Wildflowers of California (4)	
NATR 346	Water Resources and Conservation (3)	
NATR 495	Independent Studies in Natural Resources (1 - 3)	
NATR 499	Experimental Offering in Natural Resources (0.5 - 4)	
PSYC 310	Biological Psychology (3)	
PSYC 311	Biological Psychology Laboratory (1)	
Total Units:		**18**

[1]must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science

The General Science Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate new and accepted ideas about the natural universe using scientific methods.
- analyze a wide variety of natural phenomena using basic definitions and fundamental theories of biological or physical sciences.
- apply appropriate quantitative and qualitative methods to interpret and analyze pertinent data.
- outline the basic concepts and fundamental theories of a natural science.

- articulate orally and/or in writing the importance of continuous examination and modification of accepted ideas as a fundamental element in the progress of science.
- discuss ethical components of scientific decision making and apply personal and social values within the process of decision making in scientific endeavors.

A.S. in Geographic Information Systems (GIS)

Geographic Information Systems (GIS) are collections of computers, software applications, and personnel used to capture, store, transform, manage, analyze, and display spatial information. This powerful technology has a wide range of applications in planning and management by government agencies, business, and industry. The A.S. Degree provides a solid technical background in GIS concepts and applications including database design, the Global Positioning System (GPS), cartography, GIS programming, spatial analysis, and interdisciplinary applications of the technology. The degree also includes ARC General Education and elective courses, which are required for graduation. Completion of the degree requires practical work experience in GIS.

Degree Requirements

Course Code	Course Title	Units
GEOG 330	Introduction to Geographic Information Systems	3
GEOG 334	Introduction to GIS Software Applications	3
GEOG 340	Cartographic Design for GIS	3
GEOG 342	Introduction to Remote Sensing and Digital Image Processing	3
GEOG 344	Spatial Analysis and Modeling in GIS	3
GEOG 350	Data Acquisition in GIS	3
GEOG 360	Database Design and Management in GIS	3
GEOG 362	Advanced Database Design and Management in GIS	3
GEOG 375	Introduction to GIS Programming	3
GEOG 385	Introduction to Web Based GIS Application Development	3
A minimum of 1 unit from the following:		1
GEOG 498	Work Experience in Geography (0.5 - 4)	
Total Units:		**31**

The Geographic Information Systems (GIS) Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess and describe fundamental aspects of geographic information and scale, with specific reference to raster and vector digital spatial data models used to represent such information.
- evaluate and compile various types of spatial data, with specific attention to geospatial metadata, data quality, and identification of the most appropriate data type for use in a specific GIS application.
- compare and contrast the variety of available coordinate systems, map projections, and datums, and choose the appropriate variety for a specific GIS application.
- originate, classify, edit, and manage digital spatial data using various techniques (e.g., manual, scan, and on-screen digitizing, computer-assisted drafting, GPS, etc.).
- design, synthesize, validate, optimize, and manage spatial attribute tables and databases.
- apply appropriate data normalization and classification schemes to attribute data.
- formulate geoprocessing and analysis functions that are appropriate for specific applications, and be able to perform and evaluate the results of such processes (such as buffering, overlay, reclassification, address matching, and statistical analysis).
- compare and contrast the effectiveness of various GIS output products, including maps, tables, charts, and other digital output for specific applications.
- describe, assess, and compare common map elements and the cartographic design process.
- synthesize, design, apply, and manage a GIS project, including estimates of time and labor requirements.
- propose at least three examples of GIS applications that document spatial distributions or solve spatial problems.
- list and describe at least three career options for GIS professionals.
- design, create, and disseminate high-quality maps in both hard-copy (paper) and digital (on-screen) forms.
- compare and contrast the effectiveness of hard-copy and digital maps.
- analyze problems encountered in the study of other disciplines, and formulate appropriate GIS solutions.

Career Information

According to an Environmental Systems Research Institute survey, over 80 percent of the data used for decision-making in government and industry has a spatial component. New areas of rapid growth are in criminal justice, homeland security,

marketing, retail site location, resource allocation, banking, health-care planning, disease control, insurance, real estate, and disaster preparedness, management, and response. Most local, state, and federal government agencies use GIS and maintain a staff of GIS technicians, analysts, and professionals. GIS is also commonly used in the private sector by businesses, planners, architects, foresters, geologists, environmental scientists, archaeologists, real estate professionals, marketers, sociologists, and bankers. The growth in application areas of GIS and of GIS as a specialized discipline represents a new way for individuals, agencies, and businesses to view the world. The expansion of jobs in GIS is anticipated to continue for many years to come. It is likely that all students, regardless of their particular field of interest, will at least be exposed to and probably use a GIS in some capacity in the years ahead. The purpose of American River College's GIS program is to prepare students for careers in this expanding technological field.

A.S. in Geography

This degree provides students with a solid foundation in Geography as well as the standard prerequisites for upper-division coursework leading to a baccalaureate degree. The required and elective coursework covers a broad spectrum of Physical Geography, Human Geography, and GIS.

This is not an official transfer degree, such as the Geography AA-T, which guarantees admission to any California State University. However, this degree has been designed with an emphasis on University of California (UC) transferability. Please see a counselor to help choose courses to satisfy Cal-GETC requirements. This degree can also be used to prepare students for transfer to geography programs at private institutions, but in all cases students are strongly encouraged to research the lower division requirements at all programs they might be interested in.

Degree Requirements

Course Code	Course Title	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
GEOG 330	Introduction to Geographic Information Systems (3)	3[1]
or GEOG 331	Exploring Maps and Geographic Technologies (3)	
or GEOG 334	Introduction to GIS Software Applications (3)	
GEOG 391	Field Studies in Geography: Mountain Landscapes (1 -4)	1 - 4
or GEOG 392	Field Studies in Geography: Coastal Landscapes (1 -4)	
or GEOG 393	Field Studies in Geography: Arid Landscapes (1 -4)	
or GEOG 394	Field Studies in Geography: Volcanic Landscapes (1 -4)	
PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	3 - 4
or STAT C1000	Introduction to Statistics (4)	
A minimum of 6 units from the following:		6
GEOG 305	Global Climate Change (3)	
or GEOL 320	Global Climate Change (3)	
GEOG 306	Weather and Climate (3)	
GEOG 307	Environmental Hazards and Natural Disasters (3)	
or GEOL 325	Environmental Hazards and Natural Disasters (3)	
GEOG 308	Introduction to Oceanography (3)	
or GEOL 330	Introduction to Oceanography (3)	
GEOG 309	Introduction to Oceanography Lab (1)	
or GEOL 331	Introduction to Oceanography Lab (1)	
GEOG 320	World Regional Geography (3)	
GEOG 322	Geography of California (3)	
Total Units:		**20 - 24**

[1]GEOG 331 is recommended for students who plan to transfer to a California State University.

The Geography Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe the general content and scope of collegiate level geography studies.
- compare and contrast the general biophysical and sociocultural differences and similarities among world regions.

- interpret maps and mapped data utilizing basic map elements including scales, coordinate systems, and symbols.
- compare and contrast common geographic information technologies such as Geographic Information Systems (GIS), Global Positioning System (GPS), and Remote Sensing.
- evaluate and analyze geographic problems and their solutions.
- list and describe at least three career options for geographers.

Career Information

The opportunities for geographers are as varied as the scope of geography itself. Geographers are found throughout the public and private sector, though rarely in positions with the title of Geographer. When combined with appropriate internships and/or other work experience, a baccalaureate degree in geography is excellent preparation for careers in natural resource management, environmental consulting, urban and regional planning, and elementary and secondary teaching. Geographic skills and knowledge are also quite valuable in diverse fields such as real estate, marketing, and demography.

Certificate of Achievement

Geographic Information Systems (GIS) Certificate

Geographic Information Systems (GIS) are collections of computers, software applications, and personnel used to capture, store, transform, manage, analyze, and display spatial information. This powerful technology has a wide range of applications in planning and management by government agencies, business, and industry. The certificate provides a solid technical background in GIS concepts and applications including database design, the Global Positioning System (GPS), cartography, GIS programming, spatial analysis, and interdisciplinary applications of the technology. Completion of the certificate requires practical work experience in GIS.

Certificate Requirements

Course Code	Course Title	Units
GEOG 330	Introduction to Geographic Information Systems	3
GEOG 334	Introduction to GIS Software Applications	3
GEOG 340	Cartographic Design for GIS	3
GEOG 342	Introduction to Remote Sensing and Digital Image Processing	3
GEOG 344	Spatial Analysis and Modeling in GIS	3
GEOG 350	Data Acquisition in GIS	3
GEOG 360	Database Design and Management in GIS	3
A minimum of 6 units from the following:		6
GEOG 362	Advanced Database Design and Management in GIS (3)	
GEOG 375	Introduction to GIS Programming (3)	
GEOG 385	Introduction to Web Based GIS Application Development (3)	
A minimum of 1 unit from the following:		1
GEOG 498	Work Experience in Geography (0.5 - 4)	
Total Units:		**28**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess and describe fundamental aspects of geographic information and scale, with specific reference to raster and vector digital spatial data models used to represent such information.
- evaluate and compile various types of spatial data, with specific attention to geospatial metadata, data quality, and identification of the most appropriate data type for use in a specific GIS application.
- compare and contrast the variety of available coordinate systems, map projections, and datums, and choose the appropriate variety for a specific GIS application.
- originate, classify, edit, and manage digital spatial data using various techniques (e.g., manual, scan, and on-screen digitizing, computer-assisted drafting, GPS, etc.).
- design, synthesize, validate, optimize, and manage spatial attribute tables and databases.
- apply appropriate data normalization and classification schemes to attribute data.
- formulate geoprocessing and analysis functions that are appropriate for specific applications, and be able to perform and evaluate the results of such processes (such as buffering, overlay, reclassification, address matching, and statistical analysis).
- compare and contrast the effectiveness of various GIS output products, including maps, tables, charts, and other digital output for specific applications.
- describe, assess, and compare common map elements and the cartographic design process.
- synthesize, design, apply, and manage a GIS project, including estimates of time and labor requirements.

- propose at least three examples of GIS applications that document spatial distributions or solve spatial problems.
- list and describe at least three career options for GIS professionals.
- design, create, and disseminate high-quality maps in both hard-copy (paper) and digital (on-screen) forms.
- compare and contrast the effectiveness of hard-copy and digital maps.
- analyze problems encountered in the study of other disciplines, and formulate appropriate GIS solutions.

Career Information

According to an Environmental Systems Research Institute survey, over 80 percent of the data used for decision-making in government and industry has a spatial component. New areas of rapid growth are in criminal justice, homeland security, marketing, retail site location, resource allocation, banking, health-care planning, disease control, insurance, real estate, and disaster preparedness, management, and response. Most local, state, and federal government agencies use GIS and maintain a staff of GIS technicians, analysts, and professionals. GIS is also commonly used in the private sector by businesses, planners, architects, foresters, geologists, environmental scientists, archaeologists, real estate professionals, marketers, sociologists, and bankers. The growth in application areas of GIS and of GIS as a specialized discipline represents a new way for individuals, agencies, and businesses to view the world. The expansion of jobs in GIS is anticipated to continue for many years to come. It is likely that all students, regardless of their particular field of interest, will at least be exposed to and probably use a GIS in some capacity in the years ahead. The purpose of American River College's GIS program is to prepare students for careers in this expanding technological field.

Geography (GEOG) Courses

GEOG 300 Physical Geography: Exploring Earth's Environmental Systems

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: GENSCI 90

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

C-ID: C-ID GEOG 110

This course explores the processes and interrelationships which shape Earth's natural landscapes. Key topics include solar energy balance, weather and climate, water resources, landforms, natural hazards, soil, and vegetation. Relevant application of these concepts is used to explain the evolving relationship between humans and Earth's natural systems. Field trips may be required to relate course content to the real world.

GEOG 301 Physical Geography Laboratory

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Corequisite: GEOG 300

Advisory: Successful completion of Prealgebra and the skills needed to read and write college-level texts.

Transferable: CSU; UC

General Education: Cal-GETC Area 5C

C-ID: C-ID GEOG 111

This course is a laboratory study of basic principles and concepts involved in understanding Earth's environmental systems. Labs feature observation, collection, analysis, and display of data related to the study of energy, weather and climate, vegetation, soils, landforms, and environmental hazards. Additional topics include geographic methods and technology, including interpretation of maps and other geographic imagery, weather instrumentation, the Global Positioning System (GPS), and relevant computer and Internet applications. Field experiences may be required.

GEOG 305 Global Climate Change

Same As: GEOL 320

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: GENSCI 90

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

This course explores the history and mechanisms of climate change in Earth’s past, as well as the methods that scientists use to investigate climate change. It also focuses on climate change in Earth’s recent history (the past few million years) and the role that humans have had in climate change, especially since the Industrial Revolution. Additionally, it investigates the effects of climate change in today’s world and presents possible technological and political solutions to this vast and increasingly important problem, and how societies

may adapt to the changes. Field experiences may be required. This course is not open to students who have completed GEOL 320.

GEOG 306 Weather and Climate

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Prealgebra and the skills needed to read and write college-level texts.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

C-ID: C-ID GEOG 130

This course introduces atmospheric processes including energy and moisture exchanges; atmospheric pressure; global circulation; precipitation processes; weather systems; severe weather; and world, regional, and local climate systems. It also includes observation and analysis of atmospheric data using charts, weather maps, and radar and satellite imagery from the Internet and other sources. Field trips may be required to reinforce course content.

GEOG 307 Environmental Hazards and Natural Disasters

Same As: GEOL 325

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Prealgebra and the skills needed to read and write college-level texts.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

This course covers the environmental effects and applications of Earth-related processes. It focuses on earthquakes, volcanic eruptions, landslides, flooding, hurricanes, and related current events. Additional topics include the availability and exploitation of natural resources, waste disposal, and global climate change. Humans as a force in environmental change are emphasized. This course addresses geology, engineering, environmental studies, natural resources, geography, and science education. Field experiences may be required. This course is not open to students who have completed GEOL 325.

GEOG 308 Introduction to Oceanography

Same As: GEOL 330

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Prealgebra and the skills needed to read and write college-level texts.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

This course is an integrated study of the world's oceans, including the physical, chemical, biological, and human-made processes that affect the oceans. Topics include plate tectonics, ocean basins and sediments, water chemistry, waves, tides, shoreline processes, ocean currents, and biosystems. Human impacts on oceans will also be discussed. Regional oceanographic features are emphasized and field experiences may be required. This course is not open to students who have completed GEOL 330.

GEOG 309 Introduction to Oceanography Lab

Same As: GEOL 331

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Corequisite: GEOG 308 or GEOL 330

Transferable: CSU; UC

General Education: Cal-GETC Area 5C

This course is a laboratory investigation of Earth's oceans, emphasizing coastal processes of California. Topics include plate tectonics, ocean basins and sediments, water chemistry, waves, tides, shoreline processes, ocean currents, and biosystems. Field experiences may be required. This course is not open to students who have completed GEOL 331.

GEOG 310 Human Geography: Exploring Earth's Cultural Landscapes

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Prealgebra.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID GEOG 120

This course investigates the diverse patterns of human settlement, development, and movement on earth, which evolved as a result of cultural and environmental factors. It emphasizes the understanding of global population and migration patterns, languages, religions, ethnicities, political and economic systems, development issues, agriculture, and urbanization.

GEOG 320 World Regional Geography

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Prealgebra.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID GEOG 125

This course is a global survey of the world's major geographic regions. Basic geographic concepts and ideas are used to study and compare cultures, resources, landscapes, economies, and political structures across all geographic regions. The interaction of countries and regions, their global roles, and the conflicting pressures of cultural diversity and globalization are presented. Throughout the course, students examine the widening gap between more developed and less developed countries and regions, with a particular focus on comparing and contrasting conditions in North America and the United States with those in the rest of the world.

GEOG 322 Geography of California

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Prealgebra and the skills needed to read and write college-level texts.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID GEOG 140

This course is a study of the various natural and cultural environments of California, with special emphasis on the interaction of people with landforms, climate, natural vegetation, soils, and resources. It presents historical, political, and economic development within this diverse environment. The diversity of cultures which make up the state's expanding population is studied and compared. Analysis of current relevant issues, including those based on ethnic and cultural differences, is also presented.

GEOG 330 Introduction to Geographic Information Systems

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: CISC 300

Transferable: CSU; UC

General Education: Local GE L2

This course provides an introduction to the concepts, methods, and applications of Geographic Information Systems (GIS). It emphasizes the techniques used to capture, store, query, analyze, and display spatial data. Specific topics include applications of GIS, geographic information and scale, coordinate systems, geospatial data models, data classification and symbolization, query and selection, cartographic design, data acquisition, data quality, geoprocessing, relational databases, metadata, spatial analysis, and GIS software.

GEOG 331 Exploring Maps and Geographic Technologies

Units: 3

Hours: 49.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Advisory: CISC 300 and GEOG 300

Transferable: CSU; UC

General Education: Local GE L5

C-ID: C-ID GEOG 150

This course introduces students to the world of maps and the geographic techniques and technologies that are utilized in the creation of maps. Specific topics include cartographic design, basic statistics, the Global Positioning System (GPS), internet mapping, remote sensing, and Geographic Information Systems (GIS).

GEOG 334 Introduction to GIS Software Applications

Units: 3

Hours: 49.5 hours LEC; 13.5 hours LAB

Prerequisite: None.

Advisory: CISC 300 and GEOG 330

Transferable: CSU

C-ID: C-ID GEOG 155

This course provides the conceptual and practical foundations for using Geographic Information Systems (GIS) software. It emphasizes basic GIS software functionality including map display, attribute and spatial query, address geocoding, spatial database management, spatial analysis, cartographic presentation, and spatial data management.

GEOG 340 Cartographic Design for GIS

Units: 3

Hours: 54 hours LEC

Prerequisite: GEOG 330 with a grade of "C" or better

Transferable: CSU

This course provides an introduction to map design and production in the context of Geographic Information Systems (GIS). It emphasizes the concepts and methods associated with designing and producing thematic maps. Specific topics include data standardization and classification, symbolization, map projections, map elements, typography, cartographic design, thematic mapping techniques (choropleth, proportional symbol, dot, isarithmic, and multivariate), color in cartography, history of cartography, and map reproduction. Map critique sessions are also held.

GEOG 342 Introduction to Remote Sensing and Digital Image Processing

Units: 3

Hours: 49.5 hours LEC; 13.5 hours LAB

Prerequisite: GEOG 330 with a grade of "C" or better

Transferable: CSU

This course introduces the principles and concepts of remote sensing and digital image processing as they relate to Geographic Information Systems (GIS). Topics include the fundamentals of remote sensing, aerial photography, satellite imagery, and Unmanned Aerial Vehicle (UAV) imaging systems. It covers a variety of digital image processing techniques to analyze data from various remote sensing platforms.

GEOG 344 Spatial Analysis and Modeling in GIS

Units: 3

Hours: 54 hours LEC

Prerequisite: GEOG 330 with a grade of "C" or better

Transferable: CSU

This course provides a survey of the various concepts, approaches, and tools involved in the analysis and modeling of spatial data using Geographic Information Systems (GIS). It emphasizes the use of spatial and statistical analysis, geoprocessing, and spatial modeling in order to investigate spatial distributions and relationships, answer spatial questions, and solve spatial problems. Specific topics include attribute and spatial query, geoprocessing, model building, distance and density surfaces, cluster analysis, network analysis, map algebra, surface interpolation and resampling, hydrologic analysis, 3D display/animation, and regression analysis.

GEOG 350 Data Acquisition in GIS

Units: 3

Hours: 54 hours LEC

Prerequisite: GEOG 330 with a grade of "C" or better

Transferable: CSU

This course introduces the techniques, theories, and practical experiences necessary to acquire, convert, and create digital spatial data. Topics include acquisition of existing Geographic Information Systems (GIS) data, metadata, formatting and conversion of GIS data, creation of data, utilization of remotely sensed data, and the collection of Global Positioning System (GPS) data using smartphones, tablets, and cloud mapping services. Field experiences may be required.

GEOG 360 Database Design and Management in GIS

Units: 3

Hours: 54 hours LEC

Prerequisite: GEOG 330 with a grade of "C" or better

Transferable: CSU

This course examines the design and management of spatial databases within modern Geographic Information Systems (GIS) environments. Topics include foundational database concepts, spatial database development, and applied workflows. Emphasis is placed on understanding relational principles, translating data models into geodatabases, managing feature classes and tables, and publishing and maintaining services in enterprise and cloud contexts. Students gain hands-on experience with Structured Query Language (SQL), geodatabase design, schema management, and data sharing strategies.

GEOG 362 Advanced Database Design and Management in GIS

Units: 3

Hours: 54 hours LEC

Prerequisite: GEOG 360 with a grade of "C" or better

Transferable: CSU

This course extends the concepts presented in GEOG 360, Database Design and Management in GIS. Topics include the advanced applications of organizing, inputting, and editing spatial data, including spatial functions, multi-user editing, and data organization. It involves the rigorous examination of traditional spatial database topics in a Geographic Information Systems (GIS) context including data integration, warehousing, complex Structured Query Language (SQL) spatial coding, and service publication and management.

GEOG 375 Introduction to GIS Programming

Units: 3

Hours: 49.5 hours LEC; 13.5 hours LAB

Prerequisite: GEOG 330 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L2

This course provides the concepts and skills necessary to become a proficient Geographic Information Systems (GIS) applications developer using the Python scripting language to develop commonly used GIS procedures and functions. Topics include GIS methods for querying and selecting geographic features, working with selection sets, editing tables, creating automated map sets, and performing geoprocessing operations.

GEOG 385 Introduction to Web Based GIS Application Development

Units: 3

Hours: 49.5 hours LEC; 13.5 hours LAB

Prerequisite: GEOG 330 with a grade of "C" or better

Transferable: CSU

This course introduces the development of web-based Geographic Information Systems (GIS) solutions. Web map authoring and web service management tools are used to create, manage, maintain, and deploy web map services. It also introduces several options for using published web map services for web-based and mobile mapping applications.

GEOG 391 Field Studies in Geography: Mountain Landscapes

Units: 1 - 4

Hours: 6 - 24 hours LEC; 36 - 144 hours LAB

Prerequisite: None.

Transferable: CSU; UC

C-ID: C-ID GEOG 160

This course covers geographic principles and processes in mountain environments. Course content varies by destination and may include topics in physical geography (e.g., plant and animal communities, climate and weather, geology and geomorphology, natural hazards, environmental impacts) and human geography (e.g., cultural landscapes, economic activities, transportation issues, land use patterns). It also introduces tools and techniques used for geographic field research (e.g., map and compass use, the Global Positioning System (GPS), Geographic Information Systems (GIS)). Field trips are required.

GEOG 392 Field Studies in Geography: Coastal Landscapes

Units: 1 - 4

Hours: 6 - 24 hours LEC; 36 - 144 hours LAB

Prerequisite: None.

Transferable: CSU; UC

C-ID: C-ID GEOG 160

This course involves the study of geographic principles and processes in coastal environments. Course content varies by destination and may include topics in physical geography (e.g., plant and animal communities, climate and weather, geology and geomorphology, natural hazards, environmental impacts) and human geography (e.g., cultural landscapes, economic activities, transportation issues, land use patterns). It also introduces tools and techniques used for geographic field research (e.g., map and compass use, the Global Positioning System (GPS), Geographic Information Systems (GIS)). Field trips are required.

GEOG 393 Field Studies in Geography: Arid Landscapes

Units: 1 - 4

Hours: 6 - 24 hours LEC; 36 - 144 hours LAB

Prerequisite: None.

Transferable: CSU; UC

C-ID: C-ID GEOG 160

This course involves the study of geographic principles and processes in arid environments. Course content varies by destination and may include topics in physical geography (e.g., plant and animal communities, climate and weather, geology and geomorphology, natural hazards, environmental impacts) and human geography (e.g., cultural landscapes, economic activities, transportation issues, land use patterns). It also introduces tools and techniques used for geographic field research (e.g., map and compass use, the Global Positioning System (GPS), Geographic Information Systems (GIS)). Field trips are required.

GEOG 394 Field Studies in Geography: Volcanic Landscapes

Units: 1 - 4

Hours: 6 - 24 hours LEC; 36 - 144 hours LAB

Prerequisite: None.

Transferable: CSU; UC

C-ID: C-ID GEOG 160

This course involves the study of geographic principles and processes in volcanic environments. Course content varies by destination and may include topics in physical geography (e.g., plant and animal communities, climate and weather, geology and geomorphology, natural hazards, environmental impacts) and human geography (e.g., cultural landscapes, economic activities, transportation issues, land use patterns). It also introduces tools and techniques used for geographic field research (e.g., map and compass use, the Global Positioning System (GPS), Geographic Information Systems (GIS)). Field trips are required.

GEOG 495 Independent Studies in Geography

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

GEOG 498 Work Experience in Geography

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Geography Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of geography or geographic information systems (GIS). 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

GEOG 499 Experimental Offering in Geography

Units: 0.5 - 4

Hours: 15 hours LEC; 12 hours LAB

Prerequisite: None.

Advisory: GEOG 330

Transferable: CSU

This course introduces remote sensing principles, image data sources, and provides practical experience in a full range of digital image processing functions including image rectification, image enhancement, classification, data integration and biophysical modeling using image data from airborne and space-borne sensors.

Geology

Overview

Geology is the study of the origin and evolution of the Earth, using the principles of mathematics, chemistry, physics, and biology. Geologists study rocks, minerals, and fossils in an effort to draw conclusions about the Earth's observable surface processes, as well as those processes taking place inside the Earth. They attempt to determine how the Earth was formed and how it is being changed by natural and man-made activities. Geologists are often involved in remediating environmental problems caused by mining, construction, and manufacturing.

Degrees Offered

A.S.-T. in Geology

A.S. in General Science

Dean: Joel Keebler

Department Chair: Hugh Howard

Phone: (916) 484-8107

Email: askhb-STEM@arc.losrios.edu

Associate Degrees for Transfer

A.S.-T. in Geology

The Associate in Science in Geology for Transfer (AS-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Geology at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (Pursuant to SB1440, §66746):

• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

ADTs also require that students must earn a "C" or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
CHEM 400	General Chemistry I	5
CHEM 401	General Chemistry II	5
GEOL 300	Physical Geology	3
GEOL 301	Physical Geology Laboratory	1
GEOL 310	Historical Geology	3
GEOL 311	Historical Geology Laboratory	1
MATH 400	Calculus I	5
MATH 401	Calculus II	5
Total Units:		**28**

The Associate in Science in Geology 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 California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate new and accepted ideas about the natural universe using testable methodology.
- articulate orally and/or in writing the importance of continuous examination and modification of accepted ideas as a fundamental element in the progress of science.
- sort, arrange, and quantify objects using the international system of measurement (metric) as the standard.
- analyze a wide variety of natural phenomena using basic definitions and fundamental theories of natural science.
- compare the scales at which geologic processes work.

- apply knowledge of current geologic processes to the understanding of Earth's past geologic history.

Career Information

The Geology transfer degree is designed to facilitate students' successful transfer to four-year colleges that prepare them for advanced study in a variety of graduate programs as well as a variety of career opportunities in the fields of environmental monitoring, protection and remediation, energy and mineral exploration, paleontology, volcanology, seismology, climatology, teaching, and research.

Associate Degrees

A.S. in General Science

This program provides a broad study in the fields of biological and physical sciences in preparation for transfer to a four-year program and continuation of studies in upper division science courses.

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18[1]
Physical Science Courses		
ASTR C1001	Introduction to Astronomy (3)	
ASTR 310	The Solar System (3)	
ASTR 320	Stars, Galaxies, and Cosmology (3)	
ASTR 330	Introduction to Astrobiology (3)	
ASTR C1001L	Introduction to Astronomy Lab (1)	
ASTR 481	Honors Astronomy: Stars, Galaxies, and Cosmology (4)	
ASTR 495	Independent Studies in Astronomy (1 - 3)	
ASTR 499	Experimental Offering in Astronomy (0.5 - 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 310	Chemical Calculations (4)	
CHEM 338	Chemistry In Your World (3)	
CHEM 400	General Chemistry I (5)	
CHEM 401	General Chemistry II (5)	
CHEM 420	Organic Chemistry I (5)	
CHEM 421	Organic Chemistry II (5)	
CHEM 423	Organic Chemistry - Short Survey (5)	
CHEM 495	Independent Studies in Chemistry (1 - 3)	
CHEM 499	Experimental Offering in Chemistry (0.5 - 4)	
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)	
GEOG 307	Environmental Hazards and Natural Disasters (3)	
GEOG 308	Introduction to Oceanography (3)	
GEOG 309	Introduction to Oceanography Lab (1)	
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 495	Independent Studies in Geography (1 - 3)	
GEOG 499	Experimental Offering in Geography (0.5 - 4)	
GEOL 300	Physical Geology (3)	
GEOL 301	Physical Geology Laboratory (1)	
GEOL 305	Earth Science (3)	
GEOL 306	Earth Science Laboratory (1)	

Course Code	Course Title	Units
GEOL 310	Historical Geology (3)	
GEOL 311	Historical Geology Laboratory (1)	
GEOL 320	Global Climate Change (3)	
GEOL 325	Environmental Hazards and Natural Disasters (3)	
GEOL 330	Introduction to Oceanography (3)	
GEOL 331	Introduction to Oceanography Lab (1)	
GEOL 345	Geology of California (3)	
GEOL 392	Field Studies in Mountain Landscapes (1 - 4)	
GEOL 393	Field Studies in Coastal Landscapes (1 - 4)	
GEOL 394	Field Studies in Volcanic Landscapes (1 - 4)	
GEOL 495	Independent Studies in Geology (1 - 3)	
GEOL 499	Experimental Offering in Geology (0.5 - 4)	
PHYS 310	Conceptual Physics (3)	
PHYS 311	Basic Physics (3)	
PHYS 312	Conceptual Physics Laboratory (1)	
PHYS 350	General Physics (4)	
PHYS 360	General Physics (4)	
PHYS 410	Mechanics of Solids and Fluids (5)	
PHYS 421	Electricity and Magnetism (4)	
PHYS 431	Heat, Waves, Light and Modern Physics (4)	
PHYS 495	Independent Studies in Physics (1 - 3)	
PHYS 499	Experimental Offering in Physics (0.5 - 4)	
Biological Science Courses		
ANTH 300	Biological Anthropology (3)	
ANTH 301	Biological Anthropology Laboratory (1)	
ANTH 303	Introduction to Forensic Anthropology (3)	

Course Code	Course Title	Units
ANTH 370	Primatology (3)	
ANTH 480	Honors Biological Anthropology (3)	
ANTH 495	Independent Studies in Anthropology (1 - 3)	
ANTH 499	Experimental Offering in Anthropology (0.5 - 4)	
BIOL 300	The Foundations of Biology (3)	
BIOL 301	Evolution (3)	
BIOL C1000	Introduction to Biology with Lab (4)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
BIOL 305	Natural History (4)	
BIOL 310	General Biology (4)	
BIOL 322	Ethnobotany (3)	
BIOL 332	Introduction to Ornithology (4)	
BIOL 342	The New Plagues: New and Ancient Infectious Diseases Threatening World Health (3)	
BIOL 352	Conservation Biology (3)	
BIOL 370	Marine Biology (4)	
BIOL 375	Marine Ecology (3)	
BIOL 390	Natural History Field Study (0.5 - 4)	
BIOL 400	Principles of Biology (5)	
BIOL 410	Principles of Botany (5)	
BIOL 415	Introduction to Biology: Biodiversity, Evolution, and Ecology (5)	
BIOL 420	Principles of Zoology (5)	
BIOL 430	Anatomy and Physiology (5)	
BIOL 431	Anatomy and Physiology (5)	
BIOL 440	General Microbiology (4)	
BIOL 442	General Microbiology and Public Health (5)	

Course Code	Course Title	Units
BIOL 482	Honors Marine Biology (4)	
BIOL 495	Independent Studies in Biology (1 - 3)	
BIOL 499	Experimental Offering in Biology (0.5 - 4)	
BIOT 301	Biotechnology and Human Health (3)	
BIOT 305	Introduction to Bioinformatics (1)	
BIOT 307	Biotechnology and Society (2)	
BIOT 311	Biotechnology Laboratory Methods - Molecular Techniques (2)	
BIOT 312	Biotechnology Laboratory Methods - Microbial and Cell Culture Techniques (2)	
BIOT 499	Experimental Offering in Biology (0.5 - 4)	
NATR 300	Introduction to Natural Resource Conservation and Policy (4)	
NATR 301	Introduction to Ornithology (4)	
NATR 302	Introduction to Wildlife Biology (4)	
NATR 303	Energy and Sustainability (3)	
NATR 304	The Forest Environment (3)	
NATR 305	Fisheries Ecology and Management (4)	
NATR 306	Introduction to Rangeland Ecology and Management (4)	
NATR 307	Principles of Sustainability (4)	
NATR 310	Study Design and Field Methods (4)	
NATR 320	Principles of Ecology (4)	
NATR 322	Environmental Restoration (3)	
NATR 324	Field Studies: Birds and Plants of the High Sierra (2)	
NATR 330	Native Trees and Shrubs of California (4)	
NATR 332	Wildflowers of California (4)	
NATR 346	Water Resources and Conservation (3)	
NATR 495	Independent Studies in Natural Resources (1 - 3)	
NATR 499	Experimental Offering in Natural Resources (0.5 - 4)	
PSYC 310	Biological Psychology (3)	
PSYC 311	Biological Psychology Laboratory (1)	
Total Units:		**18**

[1]must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science

The General Science Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate new and accepted ideas about the natural universe using scientific methods.
- analyze a wide variety of natural phenomena using basic definitions and fundamental theories of biological or physical sciences.
- apply appropriate quantitative and qualitative methods to interpret and analyze pertinent data.
- outline the basic concepts and fundamental theories of a natural science.
- articulate orally and/or in writing the importance of continuous examination and modification of accepted ideas as a fundamental element in the progress of science.
- discuss ethical components of scientific decision making and apply personal and social values within the process of decision making in scientific endeavors.

Geology (GEOL) Courses

GEOL 300 Physical Geology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: GENSCI 90

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

C-ID: C-ID GEOL 100

This course provides an introduction to the dynamic nature of Earth through the study of Earth processes. Topics include global plate tectonics and related processes such as seismic and volcanic activity. It also covers mineral and rock formation, and those processes related to the development of fluvial, glacial, desert, and coastal environments. The occurrence, use, and abuse of renewable and non-renewable resources such as air, ground and surface water, and fossil fuels are also covered. Field experiences may be required.

GEOL 301 Physical Geology Laboratory

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Corequisite: GEOL 300

Transferable: CSU; UC

General Education: Cal-GETC Area 5C

C-ID: C-ID GEOL 100L

This course is a laboratory study of the basic principles of geology and their applications to everyday life. It encompasses the study and identification of common rocks and minerals, the interpretation and recognition of geologic structures and landforms, interpretation of maps, aerial photographs, remote sensing images, seismic information, and analysis of geologic hazards. Field experiences may be required.

GEOL 305 Earth Science

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: GENSCI 90

Transferable: CSU; UC (UC credit imitation: No credit if taken after a college level course in Astronomy, Geology, Oceanography or Meteorology)

General Education: Local GE L5; Cal-GETC Area 5A

C-ID: C-ID GEOL 120

This course covers major topics in geology, oceanography, meteorology, and astronomy. It focuses on Earth as a dynamic and continually evolving planet and emphasizes the relationships between human-Earth interactions. Field trips may be required.

GEOL 306 Earth Science Laboratory

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Corequisite: GEOL 305

Advisory: Successful completion of Prealgebra and the skills needed to read and write college-level texts.

Transferable: CSU; UC

General Education: Cal-GETC Area 5C

C-ID: C-ID GEOL 120L

This course emphasizes scientific methods, critical thinking skills, and systematic Earth science laboratory procedures. Topics include weather analysis, rock and mineral identification, study of topographic and geologic maps, and exercises in astronomy and oceanography.

GEOL 310 Historical Geology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: (GEOL 300 or GEOL 305) and successful completion of Prealgebra and the ability to read and write college-level English.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

C-ID: C-ID GEOL 110

This course covers the geologic history of the Earth as shown by the rock record and by the succession of fauna and flora through the processes of evolution and extinction. Plate tectonics and its driving mechanisms are used to understand the assembly and breakup of supercontinents, growth and erosion of mountains, and changing sea levels. The evolution of species, ecosystems, climates, and landscapes is placed in a plate tectonics context. Stratigraphic, mineralogic, geochemical, and petrographical techniques for interpreting the sequence of past geological events are studied. Field experiences may be required.

GEOL 311 Historical Geology Laboratory

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Corequisite: GEOL 310

Advisory: GEOL 300 and 301

Transferable: CSU; UC

General Education: Cal-GETC Area 5C

C-ID: C-ID GEOL 110L

This course is a laboratory study in historical geology. It applies principles of physical geology and paleontology in the reconstruction of the history of the Earth. Exercises in stratigraphy, paleontology, and interpretation of geologic maps are utilized. Field experiences may be required.

GEOL 320 Global Climate Change

Same As: GEOG 305

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: GENSCI 90

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

This course explores the history and mechanisms of climate change in Earth's past, as well as the methods that scientists use to investigate climate change. It also focuses on climate change in Earth's recent history (the past few million years) and the role that humans have had in climate change, especially since the Industrial Revolution. Additionally, it investigates the effects of climate change in today's world and presents possible technological and political solutions to this vast and increasingly important problem, and how societies may adapt to the changes. Field experiences may be required. This course is not open to students who have completed GEOG 305.

GEOL 325 Environmental Hazards and Natural Disasters

Same As: GEOG 307

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Prealgebra and the skills needed to read and write college-level texts.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

This course covers the environmental effects and applications of Earth-related processes. It focuses on earthquakes, volcanic eruptions, landslides, flooding, hurricanes, and related current events. Additional topics include the availability and exploitation of natural resources, waste disposal, and global climate change. Humans as a force in environmental change are emphasized. This course addresses geology, engineering, environmental studies, natural resources, geography, and science education. Field experiences may be required. This course is not open to students who have completed GEOG 307.

GEOL 330 Introduction to Oceanography

Same As: GEOG 308

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Prealgebra and the skills needed to read and write college-level texts.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

This course is an integrated study of the world's oceans, including the physical, chemical, biological, and human-made processes that affect the oceans. Topics include plate tectonics, ocean basins and sediments, water chemistry, waves, tides, shoreline processes, ocean currents, and biosystems. Human impacts on oceans will also be discussed. Regional oceanographic features are emphasized and field experiences may be required. This course is not open to students who have completed GEOG 308.

GEOL 331 Introduction to Oceanography Lab

Same As: GEOG 309

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Corequisite: GEOG 308 or GEOL 330

Transferable: CSU; UC

General Education: Cal-GETC Area 5C

This course is a laboratory investigation of Earth's oceans, emphasizing coastal processes of California. Topics include plate tectonics, ocean basins and sediments, water chemistry, waves, tides, shoreline processes, ocean currents, and biosystems. Field experiences may be required. This course is not open to students who have completed GEOG 309.

GEOL 345 Geology of California

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Prealgebra and the skills needed to read and write college-level texts.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5A

C-ID: C-ID GEOL 200

This course provides a survey of the physical and historical aspects of California geology, emphasizing the linkage of geology and people through economic and social impacts. It is recommended for non-majors and majors in geology and is of particular value to science, engineering, environmental studies, education, and economics majors. Field experiences may be required.

GEOL 392 Field Studies in Mountain Landscapes

Units: 1 - 4

Hours: 6 - 24 hours LEC; 36 - 144 hours LAB

Prerequisite: None.

Transferable: CSU; UC

This course explores the geologic processes that form mountains, as well as the importance of mountains as sources of water, energy, mineral resources, and biodiversity. The environmental hazards posed by mountains are studied, along with the human impacts on mountains. Course content varies by destination and may include topics in geologic processes, geomorphology, meteorology, and plant and animal habitats. This course also introduces geologic field techniques such as geologic map interpretation, and use of compass, rock hammers, and GPS. Field trips are required.

GEOL 393 Field Studies in Coastal Landscapes

Units: 1 - 4

Hours: 6 - 24 hours LEC; 36 - 144 hours LAB

Prerequisite: None.

Transferable: CSU; UC

This course explores the dynamics of the coastal ocean environment, the array of geomorphic processes, and the range of landforms found on the ocean's edge, as well as offshore. Topics include the work of waves and tides and resultant changes to coastal features, types of beach materials, storm impacts, and coastal responses to climate change. Coastal impacts on humans and human impacts on coasts are also examined including engineering solutions to coastal hazards. Field trips are required. A field trip expense fee may be required to cover camping fees, lodging, or other incidentals. The instructor should be contacted for details prior to the first meeting.

GEOL 394 Field Studies in Volcanic Landscapes

Units: 1 - 4

Hours: 6 - 24 hours LEC; 36 - 144 hours LAB

Prerequisite: None.

Transferable: CSU; UC

This course studies geologic principles, processes, and features in volcanic environments. Course content varies by destination and will include topics in physical geology (plate tectonics, volcanic eruption types, volcanic products, climatic and other environmental effects of volcanoes, including natural hazards as well as human interactions with volcanoes). It also introduces tools and techniques used for geologic field work such as maps, map reading, compass, and the Global Positioning System (GPS). Field trips are required. A field trip expense fee may be required to cover camping fees, lodging, or other incidentals. The instructor should be contacted for details prior to the first meeting.

GEOL 495 Independent Studies in Geology

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

GEOL 499 Experimental Offering in Geology

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

Field trips to selected locations of geologic interest in California and bordering areas. This course provides a general geologic understanding of a particular region of California and/or bordering areas. Course content may include pate tectonics, earthquakes and seismicity, geomorphology, recent volcanic activity, glacial features, ore deposits, mining, regional geology, and structural geology (faulting). Intended for those with a general interest in geology, earth science, environmental studies, civil engineering, science education, or the outdoors. Field trips(s) required.

Gerontology

Overview

California's population is aging. Approximately 29% of Californians are already over age 55, 33% will be 55+ by 2033 and in 2060, 38% of Californians will be 55+. This trend has increased the demand for a workforce with specialized knowledge of the older population and aging. We offer degrees and certificates that will prepare you to start your career in the expanding field of aging or transfer to a university.

The gerontology occupational associate of arts degrees prepare students for employment in the field of aging or transfer to a university. The program curricula are mapped to the Gerontological Competencies for Undergraduate and Graduate Education published by the Academy for Gerontology in Higher Education (AGHE), the educational branch of the Gerontological Society of America. Graduates of these programs meet the Gerontological Coordinator credential requirement of the National Association for Professional Gerontologists (NAPG). These degrees require core gerontology, human services, communication, work experience, and specialization courses.

The associate's degree that prepares students to transfer to California State University Sacramento's (CSUS) Gerontology program is being updated to match revisions made to the CSUS program within the last year. The outdated program may remain in the catalog until a new degree completes the approval process and replaces it. In the meantime, declare for the occupational program that best matches your career goals (see the course, degree, and certificate advisories for more guidance).

The gerontology occupational certificates of achievement require the same courses as the occupational degrees, except they do not require general education courses. Students who have already satisfied the general education course requirements in another program receive an associate's degree after completing the certificate requirements.

Course, Degree, and Certificate Advisories

- *GERON 305/PSYC 375 Introduction to Geropsychology and the Aging Brain* has replaced *GERON 302/PSYC 374 Psychology of Aging: Adult Development and Aging* in all of ARC's Gerontology programs, regardless of a student's catalog year. GERON 302/PSYC 374 is no longer being offered at ARC. The new course, GERON 305/PSYC 375, presents an applied curricula to prepare students for interacting with older people more effectively. It also has much better transferability to the CSU and UC systems than GERON 302/PSYC 374.
- The Gerontology AA degree in the current catalog is no longer aligned with the CSUS degree. Do not use it to guide your course selections. If you do, you are likely to take courses that are unnecessary and delay your graduation and transfer timeline. To avoid that, request an appointment with the gerontology department chair for guidance (https://docs.google.com/forms/d/e/1FAIpQLSeUg9Dx9Y5qIdO9U6IxqRzohs8NZ1vk43k2p2JcTouug3noAQ/viewform?usp=share_link).

- Though the shortage of entry-level caregivers in California is dire, the ARC Gerontology Department has ceased offering vocational courses that lead to entry-level caregiver positions in residential and day programs for older adults and people with disabilities. Instead, the department has developed courses and programs that lead to employment opportunities with more upward mobility and higher starting pay, such as community health worker assistant, social services assistant, human services assistant, case manager assistant, and so on. If you are a family member, California's Master Plan for Aging established programs to incentivize family caregiving members. It also established a broad network of free and convenient training programs for families and paid caregivers through the California Association of Public Authorities for In-Home Supportive Services (https://www.capaihss.org/resources/career-pathways/). If you want to be hired as a paid caregiver in a residential or day program for older adults and people with disabilities, you do not need training to be hired in that position. Employers are required by law to provide all employees with training, whether they have experience or not. In addition, many prefer hiring and training people without experience because inexperienced and untrained candidates are likelier to stay in positions.

Degrees and Certificates Offered

A.A. in Gerontology: Administrative

A.A. in Gerontology: Advocacy and Social Policy

A.A. in Gerontology: Case Management and Social Services

A.A. in Gerontology: Geriatric Health Care

A.A. in Gerontology: Recreation

Gerontology: Administrative Certificate

Gerontology: Advocacy and Social Policy Certificate

Gerontology: Case Management and Social Services Certificate

Gerontology: Geriatric Health Care Certificate

Gerontology: Recreation Certificate

Dean: Narinedat Madramootoo

Department Chair: Laurinda Reynolds

Phone: (916) 484-8902

Email: askhb-healthed@arc.losrios.edu

Associate Degrees

A.A. in Gerontology: Administrative

This degree provides a broad overview of the biological, psychological, and social aspects of adult development and aging as a foundation for a gerontological biopsychosocial perspective. Additional business, gerontology, and math courses are included to provide an administrative focus. This program is intended for students who plan to seek employment upon completion of the degree or as preparation for further gerontology/social services studies at a four-year college or university.

The ARC gerontology curriculum is mapped to the Gerontological Competencies established by the Academy for Gerontology in Higher Education (AGHE), the academic branch of the Gerontological Society of America (GSA). All courses in this program are offered fully online in various synchronous and asynchronous formats; some courses are also offered in person.

Degree Requirements

Course Code	Course Title	Units
COMM C1004	Interpersonal Communication	3
COMM 325	Intercultural Communication (3)	3
or SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	
GERON 303	Introduction to Social Gerontology: Aging in Contemporary Society	3
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	3
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
GERON 306	Health, Wellness, and the Aging Process	3
GERON 490	Aging Policy and Practice	3
SWCD 300	Introduction to Social Work	3
SWCD 310	Ethical Issues and Client's Rights	3
A minimum of 3 units from the following:		3
GERON 498	Work Experience in Gerontology (0.5 - 4)	
A minimum of 9 units from the following:		9
BUS 100	English for the Professional (3)	
BUS 105	Business Mathematics (3)	
or MATH 300	Introduction to Mathematical Ideas (3)	
BUS 300	Introduction to Business (3)	
or BUS 350	Small Business Management/Entrepreneurship (3)	
Total Units:		**36**

The Gerontology: Administrative Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- associate social conditions in the current and recent past with their potential impact on future aging cohorts.
- evaluate the impact of diversity in terms of race, ethnicity, religion, sex, gender and sexual orientation, and citizenship on well-being during aging and on aging outcomes.
- generalize knowledge about cognition and memory during aging to how people learn and remember at any age.
- recognize macro, mezzo, and micro-level ageism messages that marginalize and stigmatize older people.
- enumerate the functions of social service delivery systems.
- synthesize knowledge of existing California professional codes of ethics for the helping professions.
- analyze legal and ethical issues related to aging including the mandatory reporting of abuse, neglect, and exploitation, value imposition, and end-of-life decisions.
- demonstrate ease, confidence, rapport, and listening skills during interactions with older adults at various levels of function.
- differentiate between aging-related changes and the effects of social conditions and deprivations, and physical and mental diseases, disorders, deficits, injuries, and disabilities.
- assess the impacts of the social determinants of health on the biopsychosocial domains of function during aging.
- apply biopsychosocial gerontological knowledge to case studies and real-life situations.
- list services for older people and adults with disabilities available within a community.
- compose sentences and paragraphs in business documents using critical thinking to paraphrase, summarize, and make attribution.
- demonstrate accuracy, neatness, thoroughness, and speed when adding, subtracting, multiplying, and dividing whole numbers, fractions, and decimals; solving written application problems, using formulas, variables, and equations; and creating and interpreting graphs.
- describe the key management functions of planning, organizing, leading, and controlling, including ethical, regulatory/legal, social, and cultural factors.

Career Information

Entry to mid-level administrative positions in state and local government agencies, non-profit organizations, institutions, and private sector businesses that provide older people and adults with disabilities with information and referral service, service coordination, employment and legal services, activity and recreation programs, health education and health promotion programs, housing, medical care, and in-home support services.

A.A. in Gerontology: Advocacy and Social Policy

This degree provides a broad overview of the biological, psychological, and social aspects of adult development and aging as a foundation for a gerontological biopsychosocial perspective. Additional communication, political science, and sociology courses are included to provide an advocacy and social policy focus. This program is intended for students who plan to seek employment upon completion of the degree or as preparation for further gerontology/social services studies at a four-year college or university.

The ARC gerontology curriculum is mapped to the Gerontological Competencies established by the Academy for Gerontology in Higher Education (AGHE), the academic branch of the Gerontological Society of America (GSA). All courses in this program are offered fully online in various synchronous and asynchronous formats; some courses are also offered in person.

Degree Requirements

Course Code	Course Title	Units
COMM C1004	Interpersonal Communication	3
COMM 325	Intercultural Communication (3)	3
or SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	
GERON 303	Introduction to Social Gerontology: Aging in Contemporary Society	3
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	3
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
GERON 306	Health, Wellness, and the Aging Process	3
GERON 490	Aging Policy and Practice	3
SWCD 300	Introduction to Social Work	3
SWCD 310	Ethical Issues and Client's Rights	3

Course Code	Course Title	Units
A minimum of 3 units from the following:		3
GERON 498	Work Experience in Gerontology (0.5 - 4)	
A minimum of 9 units from the following:		9
COMM C1000	Introduction to Public Speaking (3)	
or COMM 302	Persuasive Speech (3)	
or COMM 311	Argumentation and Debate (3)	
POLS C1000	American Government and Politics (3)	
or POLS 304	Introduction to Government: California (3)	
or POLS 330	Constitutional Rights (3)	
SJS 300	Introduction to Social Justice Studies (3)	
or SOC 300	Introductory Sociology (3)	
Total Units:		**36**

The Gerontology: Advocacy and Social Policy Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- associate social conditions in the current and recent past with their potential impact on future aging cohorts.
- evaluate the impact of diversity in terms of race, ethnicity, religion, sex, gender and sexual orientation, and citizenship on well-being during aging and on aging outcomes.
- generalize knowledge about cognition and memory during aging to how people learn and remember at any age.
- recognize macro, mezzo, and micro-level ageism messages that marginalize and stigmatize older people.
- enumerate the functions of social service delivery systems.
- synthesize knowledge of existing California professional codes of ethics for the helping professions.
- analyze legal and ethical issues related to aging, including the mandatory reporting of abuse, neglect, and exploitation, value imposition, and end-of-life decisions.
- demonstrate ease, confidence, rapport, and listening skills during interactions with older adults at various levels of function.
- differentiate between aging-related changes and the effects of social conditions and deprivations, and physical and mental diseases, disorders, deficits, injuries, and disabilities.
- assess the impacts of the social determinants of health on the biopsychosocial domains of function during aging.
- apply biopsychosocial gerontological knowledge to case studies and real-life situations.
- list services for older people and adults with disabilities available within a community.
- recognize the relationship between constitutional rights, the governing process, and public policy at both the state and federal levels.
- assess the relationships between individual social and cultural backgrounds to everyday life events, social conditions, and quality of life.
- apply logic and evidence to support, organize, and deliver persuasive discourse.

Career Information

Entry to mid-level advocacy and support positions in state and local government agencies, non-profit organizations, institutions, and private sector businesses that provide older people and adults with disabilities with information and referral service, service coordination, employment and legal services, activity and recreation programs, health education and health promotion programs, housing, medical care, and in-home support services.

A.A. in Gerontology: Case Management and Social Services

This degree provides a broad overview of the biological, psychological, and social aspects of adult development and aging as a foundation for a gerontological biopsychosocial perspective. Additional human services and psychology courses are included to provide a case management and social services focus. This program is intended for students who plan to seek employment upon completion of the degree or as preparation for further gerontology/social services studies at a four-year college or university.

The ARC gerontology curriculum is mapped to the Gerontological Competencies established by the Academy for Gerontology in Higher Education (AGHE), the academic branch of the Gerontological Society of America (GSA). All

courses in this program are offered fully online in various synchronous and asynchronous formats; some courses are also offered in person.

Degree Requirements

Course Code	Course Title	Units
COMM C1004	Interpersonal Communication	3
COMM 325	Intercultural Communication (3)	3
or SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	
GERON 303	Introduction to Social Gerontology: Aging in Contemporary Society	3
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	3
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
GERON 306	Health, Wellness, and the Aging Process	3
GERON 490	Aging Policy and Practice	3
SWCD 300	Introduction to Social Work	3
SWCD 310	Ethical Issues and Client's Rights	3
A minimum of 3 units from the following:		3
GERON 498	Work Experience in Gerontology (0.5 - 4)	
A minimum of 9 units from the following:		9
PSYC 390	Psychology of Death and Dying (3)	
SWCD 340	Introduction to Chemical Dependency (3)	
or PSYC 400	Introduction to Chemical Dependency (3)	
SWCD 360	Techniques of Interviewing and Counseling (3)	
or SWCD 365	Techniques of Group Counseling (3)	
Total Units:		**36**

The Gerontology: Case Management and Social Services Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- associate social conditions in the current and recent past with their potential impact on future aging cohorts.
- evaluate the impact of diversity in terms of race, ethnicity, religion, sex, gender and sexual orientation, and citizenship on well-being during aging and on aging outcomes.
- generalize knowledge about cognition and memory during aging to how people learn and remember at any age.
- recognize macro, mezzo, and micro-level ageism messages that marginalize and stigmatize older people.
- enumerate the functions of social service delivery systems.
- synthesize knowledge of existing California professional codes of ethics for the helping professions.
- analyze legal and ethical issues related to aging, including the mandatory reporting of abuse, neglect, and exploitation, value imposition, and end-of-life decisions.
- demonstrate ease, confidence, rapport, and listening skills during interactions with older adults at various levels of function.
- differentiate between aging-related changes and the effects of social conditions and deprivations, and physical and mental diseases, disorders, deficits, injuries, and disabilities.
- assess the impacts of the social determinants of health on the biopsychosocial domains of function during aging.
- apply biopsychosocial gerontological knowledge to case studies and real-life situations.
- list services for older people and adults with disabilities available within a community.
- assess the psychological, physiological, and sociocultural issues related to substance use, misuse, and abuse.
- demonstrate the techniques of interviewing and counseling individuals or groups appropriate for associate-level helpers in social service agency settings.
- describe the psychological, social, philosophical, and legal issues related to death.

Career Information

Entry to mid-level care management and social services positions in state and local government agencies, non-profit organizations, institutions, and private sector businesses that provide older people and adults with disabilities with information and referral service, service coordination, employment and legal services, activity and recreation programs, health education and health promotion programs, housing, medical care, and in-home support services. Graduates with this focus may also become self-employed.

A.A. in Gerontology: Geriatric Health Care

This degree provides a broad overview of the biological, psychological, and social aspects of aging, along with introductory coursework emphasizing the health needs of an aging population. Additional Allied Health, biology, psychology, speech pathology, and nursing courses are included to provide an administrative focus. This program is intended for students who plan to seek employment upon completion of the degree or as preparation for further gerontology/social services studies at a four-year college or university.

The ARC gerontology curriculum is mapped to the Gerontological Competencies established by the Academy for Gerontology in Higher Education (AGHE), the academic branch of the Gerontological Society of America (GSA). All courses in this program are offered fully online in various synchronous and asynchronous formats; some courses are also offered in person.

Degree Requirements

Course Code	Course Title	Units
COMM C1004	Interpersonal Communication	3
COMM 325	Intercultural Communication (3)	3
or SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	
GERON 303	Introduction to Social Gerontology: Aging in Contemporary Society	3
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	3
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
GERON 306	Health, Wellness, and the Aging Process	3
GERON 490	Aging Policy and Practice	3
SWCD 300	Introduction to Social Work	3
SWCD 310	Ethical Issues and Client's Rights	3
A minimum of 3 units from the following:		3
GERON 498	Work Experience in Gerontology (0.5 - 4)	
A minimum of 9 units from the following:		9
AH 311	Medical Language for Health-Care Providers (3)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
or BIOL 300	The Foundations of Biology (3)	
or NURSE 100	Nurse Assistant (7)	
NUTRI 324	Nutrition for Healthy Aging (3)	
SLPA 126	Neurogenic Communication Disorders for the SLPA (3)	
Total Units:		**36**

The Gerontology: Geriatric Health Care Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- associate social conditions in the current and recent past with their potential impact on future aging cohorts.
- evaluate the impact of diversity in terms of race, ethnicity, religion, sex, gender and sexual orientation, and citizenship on well-being during aging and on aging outcomes.
- generalize knowledge about cognition and memory during aging to how people learn and remember at any age.
- recognize macro, mezzo, and micro-level ageism messages that marginalize and stigmatize older people.
- enumerate the functions of social service delivery systems.
- synthesize knowledge of existing California professional codes of ethics for the helping professions.
- analyze legal and ethical issues related to aging, including the mandatory reporting of abuse, neglect, and exploitation, value imposition, and end-of-life decisions.
- demonstrate ease, confidence, rapport, and listening skills during interactions with older adults at various levels of function.
- differentiate between aging-related changes and the effects of social conditions and deprivations, and physical and mental diseases, disorders, deficits, injuries, and disabilities.
- assess the impacts of the social determinants of health on the biopsychosocial domains of function during aging.
- apply biopsychosocial gerontological knowledge to case studies and real-life situations.
- list services for older people and adults with disabilities available within a community.
- demonstrate a workable knowledge of medical terminology by interpreting health care reports/records accurately into clear, non-medical terms.
- differentiate between the basic mechanisms of biological homeostasis and aging from physiological imbalances related to illness and disease.

- identify communication disorders in individuals of various ages with consideration of cultural and linguistic differences.

Career Information

Entry to mid-level care and support service positions in private residences, skilled nursing facilities, adult day health centers, residential care facilities for the elderly, memory care units, adult day programs, and other settings that provide care and services for older people and adults with disabilities.

A.A. in Gerontology: Recreation

This degree provides a broad overview of the biological, psychological, and social aspects of adult development and aging as a foundation for a gerontological biopsychosocial perspective. Additional gerontology, kinesiology, and recreation courses are included to provide a recreation focus. This program is intended for students who plan to seek employment upon completion of the degree or as preparation for further gerontology/social services studies at a four-year college or university.

The ARC gerontology curriculum is mapped to the Gerontological Competencies established by the Academy for Gerontology in Higher Education (AGHE), the academic branch of the Gerontological Society of America (GSA). All courses in this program are offered fully online in various synchronous and asynchronous formats; some courses are also offered in person.

Degree Requirements

Course Code	Course Title	Units
COMM C1004	Interpersonal Communication	3
COMM 325	Intercultural Communication (3)	3
or SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	
GERON 303	Introduction to Social Gerontology: Aging in Contemporary Society	3
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	3
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
GERON 306	Health, Wellness, and the Aging Process	3
GERON 490	Aging Policy and Practice	3
SWCD 300	Introduction to Social Work	3
SWCD 310	Ethical Issues and Client's Rights	3
A minimum of 3 units from the following:		3
GERON 498	Work Experience in Gerontology (0.5 - 4)	
A minimum of 9 units from the following:		9
HEED 300	Health Science (3)	
or KINES 300	Introduction to Kinesiology (3)	
or NUTRI 324	Nutrition for Healthy Aging (3)	
or RECR 310	Outdoor Recreation (3)	
RECR 300	Introduction to Recreation and Leisure Services (3)	
RECR 320	Recreation Activity Leadership (3)	
Total Units:		**36**

The Gerontology: Recreation Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- associate social conditions in the current and recent past with their potential impact on future aging cohorts.
- evaluate the impact of diversity in terms of race, ethnicity, religion, sex, gender and sexual orientation, and citizenship on well-being during aging and on aging outcomes.
- generalize knowledge about cognition and memory during aging to how people learn and remember at any age.
- recognize macro, mezzo, and micro-level ageism messages that marginalize and stigmatize older people.
- enumerate the functions of social service delivery systems.
- synthesize knowledge of existing California professional codes of ethics for the helping professions.
- analyze legal and ethical issues related to aging including the mandatory reporting of abuse, neglect, and exploitation, value imposition, and end-of-life decisions.
- demonstrate ease, confidence, rapport, and listening skills during interactions with older adults at various levels of function.

- differentiate between aging-related changes and the effects of social conditions and deprivations, and physical and mental diseases, disorders, deficits, injuries, and disabilities.
- assess the impacts of the social determinants of health on the biopsychosocial domains of function during aging.
- apply biopsychosocial gerontological knowledge to case studies and real-life situations.
- list services for older people and adults with disabilities available within a community.
- integrate health and aging-related fitness and nutrition components into activities in a group setting.
- demonstrate basic knowledge of program planning principles, activity leadership, and recreation and leisure events for a diverse population based on health and age.
- describe the philosophical foundations of leisure and recreation and recreation and leisure program components.

Career Information

Entry-level positions planning and leading recreation and leisure activities in skilled nursing facilities, adult day health centers, residential care facilities for the elderly, memory care units, adult day programs, and other settings that provide care, services, and housing for older people and adults with disabilities.

Certificates of Achievement

Gerontology: Administrative Certificate

This program provides a broad overview of the biological, psychological, and social aspects of adult development and aging as a foundation for a gerontological biopsychosocial perspective. Additional business, gerontology, and math courses are included to provide an administrative focus. This program is intended for students who plan to seek employment upon completion of the certificate or as preparation for further gerontology/social services studies at a four-year college or university.

The ARC gerontology curriculum is mapped to the Gerontological Competencies established by the Academy for Gerontology in Higher Education (AGHE), the academic branch of the Gerontological Society of America (GSA). All courses in this program are offered fully online in various synchronous and asynchronous formats; some courses are also offered in person.

Certificate Requirements

Course Code	Course Title	Units
COMM C1004	Interpersonal Communication	3
COMM 325	Intercultural Communication (3)	3
or SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	
GERON 303	Introduction to Social Gerontology: Aging in Contemporary Society	3
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	3
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
GERON 306	Health, Wellness, and the Aging Process	3
GERON 490	Aging Policy and Practice	3
SWCD 300	Introduction to Social Work	3
SWCD 310	Ethical Issues and Client's Rights	3
A minimum of 3 units from the following:		3
GERON 498	Work Experience in Gerontology (0.5 - 4)	
A minimum of 9 units from the following:		9
BUS 100	English for the Professional (3)	
BUS 105	Business Mathematics (3)	
or MATH 300	Introduction to Mathematical Ideas (3)	
BUS 300	Introduction to Business (3)	
or BUS 350	Small Business Management/Entrepreneurship (3)	
Total Units:		**36**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- associate social conditions in the current and recent past with their potential impact on future aging cohorts.
- evaluate the impact of diversity in terms of race, ethnicity, religion, sex, gender and sexual orientation, and citizenship on well-being during aging and on aging outcomes.
- generalize knowledge about cognition and memory during aging to how people learn and remember at any age.
- recognize macro, mezzo, and micro-level ageism messages that marginalize and stigmatize older people.
- enumerate the functions of social service delivery systems.

- synthesize knowledge of existing California professional codes of ethics for the helping professions.
- analyze legal and ethical issues related to aging, including the mandatory reporting of abuse, neglect, and exploitation, value imposition, and end-of-life decisions.
- demonstrate ease, confidence, rapport, and listening skills during interactions with older adults at various levels of function.
- differentiate between aging-related changes and the effects of social conditions and deprivations, and physical and mental diseases, disorders, deficits, injuries, and disabilities.
- assess the impacts of the social determinants of health on the biopsychosocial domains of function during aging.
- apply biopsychosocial gerontological knowledge to case studies and real-life situations.
- list services for older people and adults with disabilities available within a community.
- compose sentences and paragraphs in business documents using critical thinking to paraphrase, summarize, and make attribution.
- demonstrate accuracy, neatness, thoroughness, and speed when adding, subtracting, multiplying, and dividing whole numbers, fractions, and decimals; solving written application problems, using formulas, variables, and equations; and creating and interpreting graphs.
- describe the key management functions of planning, organizing, leading, and controlling, including ethical, regulatory/legal, social, and cultural factors.

Career Information

Entry to mid-level administrative positions in state and local government agencies, non-profit organizations, institutions, and private sector businesses that provide older people and adults with disabilities with information and referral service, service coordination, employment and legal services, activity and recreation programs, health education and health promotion programs, housing, medical care, and in-home support services.

Gerontology: Advocacy and Social Policy Certificate

This program provides a broad overview of the biological, psychological, and social aspects of adult development and aging as a foundation for a gerontological biopsychosocial perspective. Additional communication, political science, and sociology courses are included to provide an advocacy and social policy focus. This program is intended for students who plan to seek employment upon completion of the certificate or as preparation for further gerontology/social services studies at a four-year college or university.

The ARC gerontology curriculum is mapped to the Gerontological Competencies established by the Academy for Gerontology in Higher Education (AGHE), the academic branch of the Gerontological Society of America (GSA). All courses in this program are offered fully online in various synchronous and asynchronous formats; some courses are also offered in person.

Certificate Requirements

Course Code	Course Title	Units
COMM C1004	Interpersonal Communication	3
COMM 325	Intercultural Communication (3)	3
or SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	
GERON 303	Introduction to Social Gerontology: Aging in Contemporary Society	3
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	3
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
GERON 306	Health, Wellness, and the Aging Process	3
GERON 490	Aging Policy and Practice	3
SWCD 300	Introduction to Social Work	3
SWCD 310	Ethical Issues and Client's Rights	3
A minimum of 3 units from the following:		3
GERON 498	Work Experience in Gerontology (0.5 - 4)	
A minimum of 9 units from the following:		9
COMM C1000	Introduction to Public Speaking (3)	
or COMM 302	Persuasive Speech (3)	
or COMM 311	Argumentation and Debate (3)	
POLS C1000	American Government and Politics (3)	
or POLS 302	Comparative Politics (3)	
or POLS 330	Constitutional Rights (3)	
SJS 300	Introduction to Social Justice Studies (3)	
or SOC 300	Introductory Sociology (3)	

Course Code	Course Title	Units
or SOC 480	Introductory Sociology - Honors (3)	
Total Units:		**36**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- associate social conditions in the current and recent past with their potential impact on future aging cohorts.
- evaluate the impact of diversity in terms of race, ethnicity, religion, sex, gender and sexual orientation, and citizenship on well-being during aging and on aging outcomes.
- generalize knowledge about cognition and memory during aging to how people learn and remember at any age.
- recognize macro, mezzo, and micro-level ageism messages that marginalize and stigmatize older people.
- enumerate the functions of social service delivery systems.
- synthesize knowledge of existing California professional codes of ethics for the helping professions.
- analyze legal and ethical issues related to aging, including the mandatory reporting of abuse, neglect, and exploitation, value imposition, and end-of-life decisions.
- demonstrate ease, confidence, rapport, and listening skills during interactions with older adults at various levels of function.
- differentiate between aging-related changes and the effects of social conditions and deprivations, and physical and mental diseases, disorders, deficits, injuries, and disabilities.
- assess the impacts of the social determinants of health on the biopsychosocial domains of function during aging.
- apply biopsychosocial gerontological knowledge to case studies and real-life situations.
- list services for older people and adults with disabilities available within a community.
- recognize the relationship between constitutional rights, the governing process, and public policy at both the state and federal levels.
- assess the relationships between individual social and cultural backgrounds to everyday life events, social conditions, and quality of life.
- apply logic and evidence to support, organize, and deliver persuasive discourse.

Career Information

Entry to mid-level advocacy and support positions in state and local government agencies, non-profit organizations, institutions, and private sector businesses that provide older people and adults with disabilities with information and referral service, service coordination, employment and legal services, activity and recreation programs, health education and health promotion programs, housing, medical care, and in-home support services.

Gerontology: Case Management and Social Services Certificate

This degree provides a broad overview of the biological, psychological, and social aspects of adult development and aging as a foundation for a gerontological biopsychosocial perspective. Additional human services and psychology courses are included to provide a case management and social services focus. This program is intended for students who plan to seek employment upon completion of the certificate or as preparation for further gerontology/social services studies at a four-year college or university.

The ARC gerontology curriculum is mapped to the Gerontological Competencies established by the Academy for Gerontology in Higher Education (AGHE), the academic branch of the Gerontological Society of America (GSA). The courses in this program are offered both on campus and fully online in various synchronous and asynchronous course formats.

Certificate Requirements

Course Code	Course Title	Units
COMM C1004	Interpersonal Communication	3
COMM 325	Intercultural Communication (3)	3
or SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	
GERON 303	Introduction to Social Gerontology: Aging in Contemporary Society	3
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	3
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
GERON 306	Health, Wellness, and the Aging Process	3
GERON 490	Aging Policy and Practice	3
SWCD 300	Introduction to Social Work	3

Course Code	Course Title	Units
SWCD 310	Ethical Issues and Client's Rights	3
A minimum of 3 units from the following:		3
GERON 498	Work Experience in Gerontology (0.5 - 4)	
A minimum of 9 units from the following:		9
PSYC 390	Psychology of Death and Dying (3)	
SWCD 340	Introduction to Chemical Dependency (3)	
or PSYC 400	Introduction to Chemical Dependency (3)	
SWCD 360	Techniques of Interviewing and Counseling (3)	
or SWCD 365	Techniques of Group Counseling (3)	
Total Units:		**36**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- associate social conditions in the current and recent past with their potential impact on future aging cohorts.
- evaluate the impact of diversity in terms of race, ethnicity, religion, sex, gender and sexual orientation, and citizenship on well-being during aging and on aging outcomes.
- generalize knowledge about cognition and memory during aging to how people learn and remember at any age.
- recognize macro, mezzo, and micro-level ageism messages that marginalize and stigmatize older people.
- enumerate the functions of social service delivery systems.
- synthesize knowledge of existing California professional codes of ethics for the helping professions.
- analyze legal and ethical issues related to aging, including the mandatory reporting of abuse, neglect, and exploitation, value imposition, and end-of-life decisions.
- demonstrate ease, confidence, rapport, and listening skills during interactions with older adults at various levels of function.
- differentiate between aging-related changes and the effects of social conditions and deprivations, and physical and mental diseases, disorders, deficits, injuries, and disabilities.
- assess the impacts of social determinants of health on the biopsychosocial domains of function during aging.
- apply biopsychosocial gerontological knowledge to case studies and real-life situations.
- list services for older people and adults with disabilities available within a community.
- assess the psychological, physiological, and sociocultural issues related to substance use, misuse, and abuse.
- demonstrate the techniques of interviewing and counseling individuals or groups appropriate for associate-level helpers in social service agency settings.
- describe the psychological, social, philosophical, and legal issues related to death.

Career Information

Entry to mid-level care management and social services positions in state and local government agencies, non-profit organizations, institutions, and private sector businesses that provide older people and adults with disabilities with information and referral service, service coordination, employment and legal services, activity and recreation programs, health education and health promotion programs, housing, medical care, and in-home support services. Graduates with this focus may also become self-employed.

Gerontology: Geriatric Health Care Certificate

This program provides a broad overview of the biological, psychological, and social aspects of aging, along with introductory coursework emphasizing the health needs of an aging population. Additional Allied Health, biology, psychology, speech pathology, and nursing courses are included to provide an administrative focus. This program is intended for students who plan to seek employment upon completion of the certificate or as preparation for further gerontology/social services studies at a four-year college or university.

The ARC gerontology curriculum is mapped to the Gerontological Competencies established by the Academy for Gerontology in Higher Education (AGHE), the academic branch of the Gerontological Society of America (GSA). All courses in this program are offered fully online in various synchronous and asynchronous formats; some courses are also offered in person.

Certificate Requirements

Course Code	Course Title	Units
COMM C1004	Interpersonal Communication	3
COMM 325	Intercultural Communication (3)	3
or SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	

Course Code	Course Title	Units
GERON 303	Introduction to Social Gerontology: Aging in Contemporary Society	3
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	3
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
GERON 306	Health, Wellness, and the Aging Process	3
GERON 490	Aging Policy and Practice	3
SWCD 300	Introduction to Social Work	3
SWCD 310	Ethical Issues and Client's Rights	3
A minimum of 3 units from the following:		3
GERON 498	Work Experience in Gerontology (0.5 - 4)	
A minimum of 9 units from the following:		9
AH 311	Medical Language for Health-Care Providers (3)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
or BIOL 300	The Foundations of Biology (3)	
or NURSE 100	Nurse Assistant (7)	
NUTRI 324	Nutrition for Healthy Aging (3)	
SLPA 126	Neurogenic Communication Disorders for the SLPA (3)	
Total Units:		**36**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- associate social conditions in the current and recent past with their potential impact on future aging cohorts.
- evaluate the impact of diversity in terms of race, ethnicity, religion, sex, gender and sexual orientation, and citizenship on well-being during aging and on aging outcomes.
- generalize knowledge about cognition and memory during aging to how people learn and remember at any age.
- recognize macro, mezzo, and micro-level ageism messages that marginalize and stigmatize older people.
- enumerate the functions of social service delivery systems.
- synthesize knowledge of existing California professional codes of ethics for the helping professions.
- analyze legal and ethical issues related to aging, including the mandatory reporting of abuse, neglect, and exploitation, value imposition, and end-of-life decisions.
- demonstrate ease, confidence, rapport, and listening skills during interactions with older adults at various levels of function.
- differentiate between aging-related changes and the effects of social conditions and deprivations, and physical and mental diseases, disorders, deficits, injuries, and disabilities.
- assess the impacts of the social determinants of health on the biopsychosocial domains of function during aging.
- apply biopsychosocial gerontological knowledge to case studies and real-life situations.
- list services for older people and adults with disabilities available within a community.
- demonstrate a workable knowledge of medical terminology by interpreting health care reports/records accurately into clear, non-medical terms.
- differentiate between the basic mechanisms of biological homeostasis and aging from physiological imbalances related to illness and disease.
- identify communication disorders in individuals of various ages with consideration of cultural and linguistic differences.

Career Information

Entry to mid-level care and support service positions in private residences, skilled nursing facilities, adult day health centers, residential care facilities for the elderly, memory care units, adult day programs, and other settings that provide care and services for older people and adults with disabilities.

Gerontology: Recreation Certificate

This program provides a broad overview of the biological, psychological, and social aspects of adult development and aging as a foundation for a gerontological biopsychosocial perspective. Additional gerontology, kinesiology, and recreation courses are included to provide a recreation focus. This program is intended for students who plan to seek employment upon completion of the certificate or as preparation for further gerontology/social services studies at a four-year college or university.

The ARC gerontology curriculum is mapped to the Gerontological Competencies established by the Academy for Gerontology in Higher Education (AGHE), the academic branch of the Gerontological Society of America (GSA). All courses in this program are offered fully online in various synchronous and asynchronous formats; some courses are also offered in person.

Certificate Requirements

Course Code	Course Title	Units
COMM C1004	Interpersonal Communication	3
COMM 325	Intercultural Communication (3)	3
or SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	3
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
GERON 303	Introduction to Social Gerontology: Aging in Contemporary Society	3
GERON 306	Health, Wellness, and the Aging Process	3
GERON 490	Aging Policy and Practice	3
SWCD 300	Introduction to Social Work	3
SWCD 310	Ethical Issues and Client's Rights	3
A minimum of 3 units from the following:		3
GERON 498	Work Experience in Gerontology (0.5 - 4)	
A minimum of 9 units from the following:		9
HEED 300	Health Science (3)	
or KINES 300	Introduction to Kinesiology (3)	
or NUTRI 324	Nutrition for Healthy Aging (3)	
or RECR 310	Outdoor Recreation (3)	
RECR 300	Introduction to Recreation and Leisure Services (3)	
RECR 320	Recreation Activity Leadership (3)	
Total Units:		**36**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- associate social conditions in the current and recent past with their potential impact on future aging cohorts.
- evaluate the impact of diversity in terms of race, ethnicity, religion, sex, gender and sexual orientation, and citizenship on well-being during aging and on aging outcomes.
- generalize knowledge about cognition and memory during aging to how people learn and remember at any age.
- recognize macro, mezzo, and micro-level ageism messages that marginalize and stigmatize older people.
- enumerate the functions of social service delivery systems.
- synthesize knowledge of existing California professional codes of ethics for the helping professions.
- analyze legal and ethical issues related to aging, including the mandatory reporting of abuse, neglect, and exploitation, value imposition, and end-of-life decisions.
- demonstrate ease, confidence, rapport, and listening skills during interactions with older adults at various levels of function.
- differentiate between aging-related changes and the effects of social conditions and deprivations, and physical and mental diseases, disorders, deficits, injuries, and disabilities.
- assess the impacts of the social determinants of health on the biopsychosocial domains of function during aging.
- apply biopsychosocial gerontological knowledge to case studies and real-life situations.
- list services for older people and adults with disabilities available within a community.
- integrate health and aging-related fitness and nutrition components into activities in a group setting.
- demonstrate basic knowledge of program planning principles, activity leadership, and recreation and leisure events for a diverse population based on health and age.
- describe the philosophical foundations and program components of leisure and recreation.

Career Information

Entry-level positions planning and leading recreation and leisure activities in skilled nursing facilities, adult day health centers, residential care facilities for the elderly, memory care units, adult day programs, and other settings that provide care, services, and housing for older people and adults with disabilities.

Gerontology (GERON) Courses

GERON 299 Experimental Offering in Gerontology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

GERON 303 Introduction to Social Gerontology: Aging in Contemporary Society

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

This course is an introduction to older people and the aging process in the context of contemporary society through the perspective of social gerontology. It focuses the biopsychosocial lens on the social forces that contribute to the development of individuality across the lifespan and lead to differences in how people age. Using this lens, students gain perspective on how opportunities, choices, and experiences throughout life are driven by gender, race, and class, and how they culminate during aging and impact aging outcomes. It explores the influence of when people were born, where people were born, history, and how politics contribute to individual beliefs, behaviors, and experiences throughout life and during aging. The aging experience in the United States is also compared to aging in other countries. Gerontology majors are encouraged to take this course in their first semester of study.

GERON 305 Introduction to Geropsychology and the Aging Brain

Same As: PSYC 375

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

This course introduces foundation theories and constructs of gerontology and psychology to examine the aging-related biopsychosocial changes that influence how mature and older adults feel about themselves, how they process information, and how they encode memories about what they experience and learn. Special emphasis is placed on psychological differences between aging cohorts based on psychosocial factors present during the decade of birth and earlier stages of life, gender/sex and race/ethnicity, the social determinants of health, bias development, prejudice and discrimination, and racism, ableism, sexism, and ageism. Topics include psychological theories, models, and constructs that have practical application during interactions with older people; stages of life and phases of aging; aging-related changes (senescence) and the psychological impact of those changes; how illnesses, diseases, and disabilities complicate aging; the anatomy of the central and peripheral nervous systems; and models of sensorineural processing and learning/memory. Case studies are utilized to explore older adult health and mental health, personality and communication behaviors, environmental factors, and the impact of the social determinants of health on overall well-being, quality of life, and aging outcomes. This course is not open to students who have completed PSYC 375.

GERON 306 Health, Wellness, and the Aging Process

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

This course provides knowledge about health-related conditions prevalent in the older population, wellness during aging, and the aging process from the nature-nurture perspective. The knowledge has practical application when working with mature and older people and when interacting with family members, friends, and colleagues. Special emphasis is placed on the intersections between the aging process and health and wellness, the intersections between the social determinants of health and disparities in life expectancies, and how inequities impact overall health and wellness in the aging population.

Course topics are framed from the gerontological perspective, which is a strength-based, whole-lifespan, and person-centered approach. Examples of health-related topics include the social determinants of health, diseases and health conditions common among the older population, and strategies for coping with and slowing disease progression. Wellness-related topics include the health effects of stress and stress reduction, preservation of physical abilities and cognitive function, and nutrition for healthy aging, among others. Examples of aging-related topics are how aging changes cells, tissues, and organs, how those changes affect physiological processes and increase vulnerability to illness and injury, and the differentiation of aging from diseases and other health conditions. This course is not open to students who have previously completed GERON 335.

GERON 490 Aging Policy and Practice

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.

Transferable: CSU

This course provides an overview of the social issues faced by Older Americans and the social policies and programs provided to address those issues, including the Older Americans Act, Social Security, Medicare, and the Elder Justice Act. It investigates how social policies and programs are put into practice by exploring career options in the agencies, businesses, and organizations that provide services and support to older adults living in California.

GERON 495 Independent Studies in Gerontology

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

GERON 498 Work Experience in Gerontology

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Gerontology Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of gerontology. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

GERON 499 Experimental Offering in Gerontology

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Global Studies

Overview

This degree provides an understanding of international issues and the impact of globalization on developed and developing economies. It covers a number of issues, including trade, economic development, war and conflict, and foreign relations and diplomacy.

Degrees Offered

A.A.-T. in Global Studies

A.A. in International Studies

Dean: Matt Wright

Department Chair: Tressa Tabares

Phone: (916) 484-8283

Email: AskHB-PCS@arc.losrios.edu

Associate Degrees for Transfer

A.A.-T. in Global Studies

The Associate in Arts in Global Studies for Transfer (AA-T) provides an understanding of international issues and the impact of globalization on developed and developing economies. It covers a number of issues, including trade, economic development, war and conflict, and foreign relations and diplomacy.

The AA-T in Global Studies also provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Global Studies, International Studies, or International Relations at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, §66746):
• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

All ADTs also require that students must earn a “C” or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
GLST 301	Introduction to Global Studies	3
GLST 302	Global Issues	3
List A:		
A minimum of 15 units from the following:		15
Select five courses from a minimum of four of the following areas		
Political Science		
POLS C1000	American Government and Politics (3)	
or POLS C1000H	American Government and Politics - Honors (3)	
POLS 302	Comparative Politics (3)	
POLS 310	Introduction to International Relations (3)	
or POLS 480	Introduction to International Relations - Honors (3)	
POLS 320	Introduction to Political Theory (3)	
POLS 342	Women and Politics from a Global Perspective (3)	
Culture and Society		
ANTH 310	Cultural Anthropology (3)	
or ANTH 481	Honors Cultural Anthropology (3)	
ANTH 320	Introduction to Archaeology and World Prehistory (3)	
ANTH 341	Introduction to Linguistics (3)	
HIST 300	History of Europe and the Mediterranean to 1500 (3)	
or HIST 480	History of Western Civilization - Honors (3)	
HIST 302	History of Europe Since 1500 (3)	
or HIST 481	History of Western Civilization - Honors (3)	
HIST 307	History of World Civilizations to 1500 (3)	
HIST 308	History of World Civilizations, 1500 to Present (3)	
HIST C1001	United States History to 1877 (3)	
or HIST C1001H	United States History to 1877 - Honors (3)	
HIST C1002	United States History since 1865 (3)	
or HIST C1002H	United States History since 1865 - Honors (3)	
HIST 325	History of Asian/Pacific Americans (3)	

Course Code	Course Title	Units
Economics		
ECON C2002	Principles of Macroeconomics (3)	
ECON C2001	Principles of Microeconomics (3)	
Geography		
GEOG 300	Physical Geography: Exploring Earth's Environmental Systems (3)	
GEOG 310	Human Geography: Exploring Earth's Cultural Landscapes (3)	
GEOG 320	World Regional Geography (3)	
Humanities		
ARTH 308	Renaissance Tradition in Art (3)	
ARTH 310	Modern Art (3)	
ARTH 322	Art History of the Non-Western World (3)	
DEAF 314	American Sign Language III (4)	
DEAF 316	American Sign Language IV (4)	
ENGLT 340	World Literature I (3)	
ENGLT 341	World Literature II (3)	
GERM 401	Elementary German I (4)	
GERM 402	Elementary German II (4)	
GERM 411	Intermediate German (4)	
GERM 412	Intermediate German (4)	
ITAL 411	Intermediate Italian (4)	
ITAL 412	Intermediate Italian (4)	
RLST 301	Introduction to World Religions (3)	
SPAN 402	Elementary Spanish II (4)	
SPAN 411	Intermediate Spanish (4)	
SPAN 412	Intermediate Spanish (4)	
SPAN 413	Spanish for Native Speakers I (4)	
SPAN 415	Spanish for Native Speakers II (4)	
Total Units:		**21**

The Associate in Arts in Global 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate their role as a member of a global network of interdependent societies.
- formulate a cohesive understanding of world issues and events by incorporating that knowledge into their daily life and career.
- analyze various social-scientific perspectives that explain the causes and consequences of globalization.
- apply various social-scientific perspectives to daily life and the work environment.
- recognize people's socio-economic, political, and geographical background.
- analyze local and societal issues and problems within a global context.

Career Information

Completing an AA-T in Global Studies will prepare students to apply a global understanding to careers in trade, law, diplomacy, food production, education, human rights, development, relief, and marketing. Students completing this degree will be able to continue their studies in any of the above listed areas and to apply a global perspective to any field of study or work.

Associate Degrees

A.A. in International Studies

This degree provides an understanding of international issues and the impact of globalization on developed and developing economies. It covers a number of issues, including trade, economic development, war and conflict, and foreign relations and diplomacy.

Degree Requirements

Course Code	Course Title	Units
ANTH 310	Cultural Anthropology (3)	3
or ANTH 481	Honors Cultural Anthropology (3)	
ECON C2002	Principles of Macroeconomics	3
HIST 308	History of World Civilizations, 1500 to Present	3
POLS 310	Introduction to International Relations (3)	3
or POLS 480	Introduction to International Relations - Honors (3)	
SOC 300	Introductory Sociology (3)	3
or SOC 480	Introductory Sociology - Honors (3)	
A minimum of 6 units from the following:		6
GLST 301	Introduction to Global Studies (3)	
GLST 302	Global Issues (3)	
IS 305	Introduction to Middle East Studies (3)	
IS 310	Peace and Conflict (3)	
IS 312	Current Global Development Issues (3)	
A minimum of 8 units from the following:		8
GERM 401	Elementary German I (4)	
GERM 402	Elementary German II (4)	

Course Code	Course Title	Units
GERM 411	Intermediate German (4)	
GERM 412	Intermediate German (4)	
ITAL 401	Elementary Italian (4)	
ITAL 402	Elementary Italian (4)	
ITAL 411	Intermediate Italian (4)	
ITAL 412	Intermediate Italian (4)	
RUSS 401	Elementary Russian (4)	
RUSS 402	Elementary Russian (4)	
SPAN 401	Elementary Spanish I (4)	
SPAN 402	Elementary Spanish II (4)	
SPAN 411	Intermediate Spanish (4)	
SPAN 412	Intermediate Spanish (4)	
Total Units:		**29**

The International Studies Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate his/her role as a member of a global network of interdependent societies.
- formulate a cohesive understanding of world issues and events and incorporate that knowledge into his/her daily life and career.
- analyze various social-scientific perspectives that explain the causes and consequences of globalization.
- apply various social-scientific perspectives to daily life and work environment.
- recognize people's socio-economic, political, and geographical background.
- analyze local and societal issues and problems within a global context.

Career Information

This degree provides career opportunities with local, state, federal agencies, and in the private sector. The core courses provide students with diverse knowledge to work in a variety of fields, including international business, law, government and non-governmental service, social services, natural sciences, health fields, and education.

Global Studies (GLST) Courses

GLST 299 Experimental Offering in Global Studies

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

GLST 301 Introduction to Global Studies

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course is an introduction to the interdisciplinary and multi-dimensional field of Global Studies. Students will examine the process of globalization through the lenses of history, economics, political science, geography, environment, and culture. This course utilizes globalization theories to provide a scientific framework for understanding various aspects of globalization and transnational social problems. This course was formerly known as IS 301 and is not open to students who have completed that course.

GLST 302 Global Issues

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course introduces students to the origins, current status, and future trends of major transnational issues confronting the global community. Topics include economic development and inequality, environmental issues and challenges, human rights, human security (for example food, water, and health care), international conflict and security issues, migration, and population trends. This course also focuses on global governance, including the study of collective global responsibility. This course was formerly known as IS 302 and is not open to students who have completed that course.

GLST 499 Experimental Offering in Global Studies

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

International Studies (IS) Courses

IS 305 Introduction to Middle East Studies

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course introduces the contemporary Middle East from global and interdisciplinary perspectives. It covers the major developments and events that have shaped the socio-economic and political institutions and structures within a distinct geopolitical area. This course examines processes of state formation, colonialism, independence movements, major power players in the region, and the modern challenges of globalization. It also covers the consequences for foreign policy. Countries may include but are not limited to: Algeria, Egypt, Iran, Iraq, Israel, Jordan, Lebanon, Libya, Palestine, Saudi Arabia, Syria, and Tunisia. This course provides a foundation in Middle East Studies in the context of a globally interconnected world system.

IS 310 Peace and Conflict

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course examines the political and socioeconomic causes and consequences of peace and conflict from different theoretical views. It includes an analysis of inter- and intra-state conflicts and wars, terrorism, ethnic and sectarian conflicts, and gender issues and conflicts. Additional topics include war theory, "negative peace," post-conflict reconciliation, policy recommendations and proposed solutions for conflict resolution, and achieving peace through the engagement of the global community. This course is formerly known as SOCSC 310.

IS 312 Current Global Development Issues

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course covers current socio-economic and political issues in developing countries in a global context. It presents alternative theories pertaining to the causes and consequences of development, underdevelopment, and uneven development with a particular focus on the issues of globalization including political and social change. It also includes proposed solutions to various development problems from various scientific perspectives.

Health Education

Overview

The college program in health education is designed to provide students the essential information for the evaluation and maintenance of individual health.

Dean: Narinedat Madramootoo

Health and Education (TBA): Health Education

Phone: (916) 484-8902

Email: askhb-healthed@arc.losrios.edu

Health Education (HEED) Courses

HEED 300 Health Science

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L7B

This course focuses on factors which influence the health status of both the individual and the community. Topics include personal fitness, nutrition, sexuality, sexually transmitted disease, drug dependence including alcohol and tobacco, as well as diseases related to lifestyle.

HEED 308 Environmental Health Science

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B

This course covers society's interaction with the environment, current environmental factors, and the influence of these on human health. Topics include the scientific method, ecology, population dynamics, poverty, atmospheric pollution including climate change, the water cycle, water resources, water pollution, toxic substances, and environmental disease. It covers sustainable solutions to current environmental issues and environmentally related disease. Field trips may be required.

HEED 310 Heartsaver First Aid, Adult and Pediatric CPR and AED

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: HEED 310 and HEED 311 combined: maximum credit, 1 course)

This course meets the standards of the American Heart Association. It provides knowledge and skills for emergency life-saving techniques involving infants, children, and adults. Respiratory and cardiovascular distress, non-breathing, unconsciousness, choking, cardiac arrest, and first aid are addressed. The first aid, cardiopulmonary resuscitation (CPR), and Automatic External Defibrillator (AED) for adult and pediatric certification examination are included. This course is specifically designed for the general population who are not seeking professional training in the healthcare industry including nurses, physicians, EMS professionals, and other healthcare and public safety personnel.

HEED 311 Pediatric First Aid, CPR AED

Units: 1.5

Hours: 27 hours LEC

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: HEED 310 and HEED 311 combined: maximum credit, 1 course)

This course is rewritten to meet the requirements for the American Heart Association certification in child care, teachers, and camp counselors. It's designed to prepare people to provide first aid, Cardiopulmonary Resuscitation (CPR), and Automated External Defibrillator (AED) use in a safe, timely, and effective manner. The first aid, CPR, and AED pediatric certification examination is included.

HEED 315 First Aid

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

Transferable: CSU

This course provides guidelines that enable the citizen responder to give appropriate care to a victim who is injured or becomes suddenly ill. Topics include controlling bleeding, splinting, and treating seizures and heart attacks.

HEED 323 Basic Life Support for the Healthcare Provider

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

Transferable: CSU; UC

This course meets the requirements for American Heart Association certification as a Basic Life Support (BLS) Healthcare Professional. It involves learning BLS skills that are applicable to any healthcare setting. Students will learn life-saving rescue techniques for adults, children, and infants individually and as part of a team dynamics, including performance of high-quality compressions, use of an automated external defibrillator (AED), ventilation techniques, opioid-associated emergencies, and choking. This course is specifically designed for those students who are going into training for healthcare professionals including nurses, physicians, EMS professionals, and other healthcare and public safety personnel.

HEED 494 Topics in Health Education

Units: 0.5 - 3

Hours: 9 - 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course provides opportunities to study contemporary topics in health which are not included in current offerings or which require emphasis beyond existing courses.

HEED 495 Independent Studies in Health Education

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

HEED 499 Experimental Offering in Health Education

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Healthcare Interpreting

Overview

The Healthcare Interpreter certificate program is designed to prepare bilingual individuals for effective language interpretation and cultural brokering in the healthcare setting.

It emphasizes roles and responsibilities of the healthcare interpreter; the development of cultural competence in the community and workplace; insight into the language and cultural nuances for specific communities; standards and legal requirements for culturally and linguistically appropriate services; ethical decision-making, advocacy, and power dynamics in healthcare settings; and career preparation to become an integral member of the health care team.

Coursework covers modes and models of interpretation; development of the technical aspects of interpretation; techniques for facilitating and managing the flow of communication; medical terminology and related vocabulary development in the language of service; and common medical conditions and associated treatments/procedures in both basic and specialized health care service areas. Language coaches are provided to facilitate skills acquisition in the Language of Service.

Certificates Offered

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Health Sciences Certificate

Healthcare Interpreting Certificate

Dean: Narinedat Madramootoo

Department Chair: Yeny Lopez

Phone: (916) 484-8902

Email: askhb-healthed@arc.losrios.edu

Certificates of Achievement

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Health Sciences Certificate

The Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Health Sciences recognizes English as a Second Language students' milestones in completing both advanced academic ESL course work and introductory coursework in several health science fields. It incentivizes them to continue taking courses in this discipline after completing higher level ESL courses and to obtain a Certificate of Achievement or an Associate degree for use in a workplace.

Certificate Requirements

Course Code	Course Title	Units
ESL 315	Intermediate-High Integrated Reading and Writing	6
ESL 325	Advanced-Low Integrated Reading and Writing	6
ESLG 320	Advanced-Low Grammar (3)	3
or ESLL 320	Advanced-Low Listening and Speaking (3)	
A minimum of 5 units from the following:		5
AH 112	Strategies for Student Success in Health Occupations (3)	
AH 311	Medical Language for Health-Care Providers (3)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
CHEM 305	Introduction to Chemistry (5)	
CISC 300	Computer Familiarization (1)	
COMM C1000	Introduction to Public Speaking (3)	
HCI 300	Introduction to Healthcare Interpreting (0.5)	
NUTRI 300	Nutrition (3)	

Course Code	Course Title	Units
Total Units:		**20**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze, compose, and organize oral and written communication into effective documents and/or academic compositions.
- employ reading strategies.
- participate in in-depth discussions effectively.
- take clear notes.
- give oral presentations in a business/work environment.
- convey intended meaning and formulate and use a variety of interactive strategies effectively such as clarification, polite interruption, and agreement/disagreement strategies.
- research and critically evaluate information to create informed responses to issues and problems and design messages that adapt to target audiences in order to maximize communication effectiveness.
- demonstrate basic knowledge of introductory healthcare or scientific terms.
- employ effective communication in professional healthcare settings.

Career Information

Students who complete this Pathway to Health Sciences certificate will have gained knowledge in academic English and introductory skills in several health sciences fields, such as Healthcare Interpreting, Nutrition, and Allied Health.

Healthcare Interpreting Certificate

The Healthcare Interpreter certificate program is designed to prepare bilingual individuals for effective language interpretation and cultural brokering in the healthcare setting. It emphasizes roles and responsibilities of the healthcare interpreter; the development of cultural competence in the community and workplace; insight into language and cultural nuances for specific communities; standards and legal requirements for culturally and linguistically appropriate services; ethical decision-making, advocacy and power dynamics in healthcare settings; and career preparation to become an integral member of the health care team. Coursework covers modes and models of interpretation; development of the technical aspects of interpretation; techniques for facilitating and managing the flow of communication; medical terminology and related vocabulary development in language of service; and common medical conditions and associated treatments/procedures in both basic and specialized health care service areas. Language coaches are provided to facilitate skills acquisition, and precepted fieldwork experiences are required.

Certificate Requirements

Course Code	Course Title	Units
AH 311	Medical Language for Health-Care Providers	3
BIOL 304	Essentials of Human Anatomy and Physiology (4)	4 - 10
or [BIOL 430	Anatomy and Physiology (5)	
and BIOL 431]	Anatomy and Physiology (5)	
HCI 300	Introduction to Healthcare Interpreting	0.5
HCI 310	Healthcare Interpreting I	3
HCI 320	Healthcare Interpreting II	3
HCI 330	Healthcare Interpreting III	3
HCI 340	Healthcare Interpreting IV	3
HCI 350	Healthcare Interpreting Fieldwork	3
Total Units:		**22.5 - 28.5**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Complete required introductory course, HCI 300, with grade of C or better.
- Demonstrate bilingual proficiency or competence in English and language of service (hearing/speaking and reading/writing) as certified by accepted state or proprietary bilingual exam, or as documented by a standardized interview/essay rubric with program staff, as designated in current application materials.

Enrollment Process

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

- Receive application materials through participation in HCI 300.
- Submit completed application by deadline, including HCI 300 transcript or proof of completion and documentation of language competency as designated.
- Applicant selection in any given semester is contingent upon a minimum number of students in the cohort for a given language, and community need for the given language, as well as individual applicant qualifications.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- manage all facets of the interpreter role including the flow of the session, cross-cultural communication, conflict management, and the technical aspects of interpretation while conducting patient-provider encounters and pre and post sessions.
- incorporate and apply the profession's codified ethical behaviors related to confidentiality and privacy, completeness and accuracy, professional integrity and professional distance, professional development and cultural competence, and the role of advocacy when patient wellbeing or dignity is at risk.
- integrate culturally sensitive strategies and approaches in working with diverse cultures, subcultures, and special populations.
- analyze career opportunities in health care interpreting, the interpreter's role and scope of practice relative to other healthcare professionals, and the value of ongoing professional development

Career Information

Healthcare interpreting job opportunities are available through in-house hospital interpreter services, private vendors who contract with healthcare agencies, or small-business entrepreneurialism and self-employment, both full time or per diem. Venues may include face-to-face, video conferencing, or language phone services with local or at-a-distance connection and contracts.

Healthcare Interpreting (HCI) Courses

HCI 300 Introduction to Healthcare Interpreting

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

Transferable: CSU

This course is designed for bilingual/bicultural individuals interested in exploring the career choice of healthcare interpreter by developing an awareness of the roles and responsibilities of the interpreter in healthcare settings. It addresses required skills related to both language interpretation and cultural brokering and allows consideration of personal interests and aptitudes.

HCI 310 Healthcare Interpreting I

Units: 3

Hours: 48 hours LEC; 18 hours LAB

Prerequisite: HCI 300 with a grade of "C" or better

Corequisite: AH 311 and BIOL 304; or BIOL 430 and 431

Advisory: AH 311 with a grade of "C" or better; Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course is designed for bilingual individuals interested in developing the awareness, knowledge, and skills necessary for effective language interpretation in healthcare settings. It emphasizes the roles and responsibilities of a healthcare interpreter and basic knowledge of common medical conditions, treatments, and procedures in the areas of diagnostics, cardiovascular, renal, ophthalmic, and gastrointestinal specialties. It focuses on insight into language and cultural nuances for specific communities necessary for interpretation.

HCI 320 Healthcare Interpreting II

Units: 3

Hours: 48 hours LEC; 18 hours LAB

Prerequisite: HCI 310 and 310 with grades of "C" or better;

Corequisite: AH 311

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course is designed for bilingual individuals. It further develops the awareness, knowledge, and skills necessary for effective language interpretation in healthcare settings covered in HCI 310. It emphasizes the roles and responsibilities of a healthcare interpreter and basic knowledge of common medical conditions, treatments, and procedures in cardiology, respiratory, musculoskeletal, and gastrointestinal specialties. It focuses on insight into language and cultural nuances for specific communities necessary for interpretation.

HCI 330 Healthcare Interpreting III

Units: 3

Hours: 48 hours LEC; 18 hours LAB

Prerequisite: HCI 320 and 320 with grades of "C" or better

Corequisite: AH 311

Enrollment Limitation: Bilingual fluency in English and a second language.

Transferable: CSU

This course is designed for bilingual individuals preparing to become integral members of the healthcare team, bridging the linguistic and cultural gap between clients and providers who do not speak a common language. It further develops interpreting skills covered in HCI 320. Topics include specialized healthcare service areas, such as urology, the immune system, ophthalmology, and endocrinology specialties. It also emphasizes the development of cultural competency in the community and workplace.

HCI 340 Healthcare Interpreting IV

Units: 3

Hours: 48 hours LEC; 18 hours LAB

Prerequisite: AH 311, HCI 330, and HCI 330 with grades of "C" or better

Transferable: CSU

This course is designed for bilingual individuals completing their preparation to become integral members of the healthcare team, bridging the language and cultural gap between clients and providers. It further enhances interpreting skills covered in HCI 330. Topics include specialized healthcare service areas such as genetics, oncology, neurology, behavioral health, and mental health. The course also focuses on careers in interpreting, career preparation, and self-care for the professional healthcare interpreter.

HCI 350 Healthcare Interpreting Fieldwork

Units: 3

Hours: 24 hours LEC; 90 hours LAB

Prerequisite: HCI 330 and 330 with grades of "C" or better

Corequisite: HCI 340 and 340

Advisory: COMM C1000 with a grade of "C" or better

Transferable: CSU

This course is designed for interpreters-in-training to facilitate linguistic and cultural communication between healthcare clients and providers. It provides fieldwork experience applying technical interpreting skills covered in HCI 310, 320, 330, and 340. A portion of this course may be offered in a TBA component of 40 hours, which may include directed practice in approved settings and fieldwork or workplace experience.

History

Overview

The study of history equips the student with cultural literacy and promotes critical thinking and well-informed perspectives on today's world. (https://arc.losrios.edu/x10971.xml)

Degrees Offered

A.A.-T. in History

Dean: Matt Wright

Department Chair: Ricardo Caton

Phone: (916) 484-8283

Email: AskHB-PCS@arc.losrios.edu

Associate Degree for Transfer

A.A.-T. in History

The Associate in Arts in History for Transfer (AA-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in History at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (Pursuant to SB1440, §66746):

• 60 semester or 90 quarter CSU-transferable units

• the California General Education Transfer Curriculum (Cal-GETC) 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

ADTs also require that students must earn a "C" or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
HIST C1001	United States History to 1877 (3)	3

Course Code	Course Title	Units
or HIST 320	History of the United States: African-American Emphasis (3)	
or HIST 332	Women in American History (To 1877) (3)	
or HIST C1001H	United States History to 1877 - Honors (3)	
HIST C1002	United States History since 1865 (3)	3
or HIST 321	History of the United States: African-American Emphasis (3)	
or HIST 333	Women in American History (1865-Present) (3)	
or HIST C1002H	United States History since 1865 - Honors (3)	
HIST 307	History of World Civilizations to 1500 (3)	3
HIST 308	History of World Civilizations, 1500 to Present (3)	3
List A: Select one course from each area:		
A minimum of 6 units from the following:		6
Area 1		
HIST 305	Women in Western Civilization (3)	
HIST 320	History of the United States: African-American Emphasis (3)	
HIST 321	History of the United States: African-American Emphasis (3)	
HIST 323	History of the United States: The American Indian Experience (3)	
HIST 325	History of Asian/Pacific Americans (3)	
HIST 327	History of the Chicano/Mexican American (3)	
HIST 330	Women in American History (3)	
HIST 332	Women in American History (To 1877) (3)	
HIST 333	Women in American History (1865-Present) (3)	
HIST 353	History of the Islamic World (3)	
HIST 364	Asian Civilization (3)	
HIST 365	Asian Civilization (3)	
HIST 367	History of Russia (3)	
HIST 373	History of Mexico (3)	
HIST 374	History of Latin America to 1830 (3)	
HIST 375	The History of Modern Latin America and Caribbean (3)	
Area 2		
Any course not already used from Area 1 or		
HIST 300	History of Europe and the Mediterranean to 1500 (3)	
or HIST 480	History of Western Civilization - Honors (3)	
HIST 302	History of Europe Since 1500 (3)	
or HIST 481	History of Western Civilization - Honors (3)	
HIST 318	American Intellectual and Cultural History (3)	
HIST 340	History of California through 1879 (3)	
HIST 341	History of California: 1879 to Present (3)	
ANTH 310	Cultural Anthropology (3)	
or ANTH 481	Honors Cultural Anthropology (3)	
ANTH 333	American Indians of California (3)	
ANTH 334	Native Peoples of North America (3)	
ECON C2002	Principles of Macroeconomics (3)	
ECON C2001	Principles of Microeconomics (3)	
ENGLT 330	African American Literature (3)	
ENGLT 334	Asian-American Literature (3)	
ENGLT 335	Latino, Mexican-American, and Chicano Literature (3)	
ENGLT 338	Native American Literature (3)	
ENGLT 340	World Literature I (3)	
ENGLT 341	World Literature II (3)	
ENGLT 360	Women in Literature (3)	
ENGLT 365	Introduction to Gay, Lesbian, Bisexual and Transgender Literature (3)	
GEOG 310	Human Geography: Exploring Earth's Cultural Landscapes (3)	
HUM 320	Asian Humanities (3)	
HUM 326	Middle Eastern Humanities (3)	
IS 305	Introduction to Middle East Studies (3)	
POLS C1000	American Government and Politics (3)	
or POLS C1000H	American Government and Politics - Honors (3)	
RLST 301	Introduction to World Religions (3)	
SJS 300	Introduction to Social Justice Studies (3)	
SJS 310	Introduction to LGBTQ Studies (3)	
SOC 301	Social Problems (3)	
SOC 321	Race, Ethnicity and Inequality in the United States (3)	
SOC 325	Chicano Culture (3)	
SOC 342	Gender Relations in American Society (3)	
TA 302	History and Theory of the Theatre I (3)	
TA 303	History and Theory of the Theatre II (3)	
Total Units:		**18**

[1]Courses that appear in multiple lists can be used to satisfy only one list's requirements.

The Associate in Arts in History 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and correctly use basic historical terminology, and distinguish between primary and secondary sources as historical evidence.
- analyze multiple causes for an historical event, and properly evaluate why that event happened.
- identify various interpretations used by historians to explain history.
- identify the major time periods and relevant geography of history.
- analyze and evaluate the major economic, social, political, and cultural developments in history.
- analyze and evaluate the experiences and conflicts of diverse groups of people, including "common people" in history.
- make historical generalizations based on a study and understanding of historical evidence.

Career Information

The A.A.-T in History degree is designed to prepare students for a wide variety of occupational endeavors, including careers in education, business, public history, government service, the military, and the law.

History (HIST) Courses

HIST 300 History of Europe and the Mediterranean to 1500

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

C-ID: Part of C-ID HIST 170

This survey course reviews the history of Europe and the Mediterranean world from prehistory to 1500 CE. Its focus is on the impact of social, political, economic, cultural, and intellectual forces that impacted the wider region and emphasizes the dynamic interactions between and among the peoples of Europe and the Mediterranean world. This course is not open to students who have completed HIST 480.

HIST 302 History of Europe Since 1500

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

C-ID: C-ID HIST 180; Part of C-ID HIST 170

This course is a survey of European history from the sixteenth century to the present, emphasizing the interplay of social, political, economic, cultural, and intellectual forces. Those forces were often indigenous to the continent but also involved global interactions in which Europe influenced and was concurrently influenced by the broader world. This course is not open to students who have completed HIST 481.

HIST 305 Women in Western Civilization

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

This course is a survey of women's contributions to the major ideas, institutions, and events of Western Civilization. It emphasizes women's diversified roles from antiquity to the present. This course focuses on the interaction between men and women within a socially and culturally constructed framework. It also examines the effects of the patriarchal family structure on society and the pervasive impact of patriarchy on all institutions of western culture.

HIST 307 History of World Civilizations to 1500

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

C-ID: C-ID HIST 150

This course surveys global societies from prehistory to the 1500s, with a particular emphasis on the dynamic interaction and comparison of diverse peoples, ethnicities, and cultures. Special attention is given to the social, political, economic, cultural, and religious influences that have shaped human history.

HIST 308 History of World Civilizations, 1500 to Present

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

C-ID: C-ID HIST 160

This course is a survey of world history from the 16th century to the present, with particular emphasis on the increased integration of peoples and cultures as the result of the continuing process of globalization. The focus is on the revolutionary transformations of human society and human social relations caused by such new ideas as scientific racism, nationalism, imperialism, and constitutional government. It also covers important trends of the past five-hundred years including the increasing prevalence of migration, the changing nature of warfare, the harnessing of fossil fuels, the growing integration of global economies, and the scientific and technological breakthroughs that are continuing to revolutionize humanity's understanding of and relationship with the natural world. Through this focus it is possible to better understand the forces that have shaped world society over the past five-hundred years and that continue to shape the world today. These analyses are set within the context of such historical concepts as cause and effect, multiple causation, multiple frames of reference, and historical interpretation from evidence.

HIST C1001 United States History to 1877

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID HIST 130

This course was formerly known as HIST 310 History of the United States (To 1877).

This course is a historical survey of the United States, from Indigenous North America to the end of Reconstruction. The course also introduces students to historical reasoning skills. This course underscores the continuity of the American experience and emphasizes the roles played by cultural, economic, intellectual, political, and social institutions in American history, with an eye toward understanding the history of multiple ethnic groups in a comparative framework. The course covers the entire area now included in the United States of America. Relationships within the region as well as external powers will be covered. This course was formerly known as HIST 310 and is not open to students who have successfully completed HIST 310, 483, or C1001H.

HIST C1002 United States History since 1865

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID HIST 140

This course was formerly known as HIST 311 History of the United States (1865 - Present).

This course is a historical survey of the United States from the end of the Civil War to the present. The course also introduces students to historical reasoning skills. This course underscores the continuity of the American experience and emphasizes the roles played by cultural, economic, intellectual, political, and social institutions in American history, with an eye toward understanding the history of multiple ethnic groups in a comparative framework. The course covers the entire area now included in the United States of America. Relationships within the region as well as external powers will be covered. This course was formerly known as HIST 311 and is not open to students who have successfully completed HIST 311, 484, or C1002H.

HIST 318 American Intellectual and Cultural History

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course is a survey of major themes and developments in American culture and ideas from the colonial to the contemporary period. Special emphasis is given to religious, scientific, literary, artistic, philosophical, and political thought to explore the sources, expressions, and transformation of cultural and intellectual values in the history of the United States.

HIST 320 History of the United States: African-American Emphasis

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

This course covers the development of American Institutions and society from the colonial period through Reconstruction from the lens of the African American experience. The course examines the political, economic, and social forces that engendered the institution of slavery and the implications for race issues, civil war, and the struggle for equality. Beginning with the ancestral home of West Africa, this course emphasizes the cultural and intellectual contributions of African Americans as they shaped and developed the nation through resistance and resilience.

HIST 321 History of the United States: African-American Emphasis

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

This course covers the development of American Institutions and society from Reconstruction to the present from the lens of the African American experience. The course examines the political, economic, and social forces that engendered the defining and redefining of freedom for African Americans beginning with the post American Civil War time period, “Jim Crow” segregation, and the ongoing struggle for civil rights. This course emphasizes the cultural and intellectual contributions of African Americans as they shaped and developed the nation through resistance and resilience.

HIST 323 History of the United States: The American Indian Experience

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course is a survey of the North American Indian Nations. It covers the effects of European contact, trade, and colonization. Topics include the effects of United States political, economic, and social policies on Indians throughout U.S. history. Also, it emphasizes American Indian people's attempts to protect their sovereignty and revitalize their societies across time.

HIST 325 History of Asian/Pacific Americans

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This survey lecture course examines the history of Asian and Pacific Islander immigrants and Asian Pacific Americans in the United States from 1850 to the present. It includes the process of migration and settlement in the United States by people from East Asia, Southeast Asia, South Asia, and the Pacific islands. It examines the historical experience of these groups from a social, political, economic, and cultural perspective, with an emphasis on the following themes: work, family, community formation, government policies, race relations, and ethnic identities. It also addresses the contributions of Asian Americans to the multicultural development of contemporary American society, including the interaction of Asian Americans with people of European, African, Latino/a/x, and indigenous American descent.

HIST 327 History of the Chicano/Mexican American

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course is a study of the relationship between the development of U.S. and Mexican civilization in the Western Hemisphere. This course focuses on the role of the Mexican American experience in the U.S. as it was affected by social, political, and economic events. It emphasizes the socio-cultural contributions of Mexican Americans to U.S. institutions.

HIST 330 Women in American History

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course offers a survey of U.S. women's history including the origin and development of the nation's political, social, economic, and intellectual institutions, from pre-contact indigenous societies to the modern era. It is inclusive of LGBTQ+ people and the diverse roles and contributions of various ethnic and racial groups, including Native American, European American, African American, Latinx, and Asian American women.

HIST 332 Women in American History (To 1877)

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course offers a survey of U.S. women's history by examining the origin and development of the nation's political, constitutional, social, economic, and intellectual institutions, from pre-colonial Indigenous societies to 1877. It explores the evolution of American institutions and ideals, and focuses on the U.S. Constitution, political philosophies of the Framers, and representative democratic government as a whole, including in relationship to women's status and rights. The course examines major developments, themes, and institutions in U.S. society related to women, gender, and sexuality. Using an intersectional lens, the course focuses on women's experiences as they were shaped by race, racism, ethnicity, ethnocentrism, immigration, citizenship, class, gender identity, sexuality, disability, ableism, religion and other factors. The course examines and compares the experiences of North America's diverse population of women including African Americans, Asian Americans, Chicane/Chicanx, Latine/Latinx, Native Americans, and European Americans.

HIST 333 Women in American History (1865-Present)

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course offers a survey of U.S. women's history from 1865 to the present day, tracing and analyzing how women's place in U.S. society has changed over time. The course addresses the Constitution of the State of California; the nature and processes of California state and local governments; and the relationships between the U.S. government and California's state and local governments as they relate to women since 1865. The course examines major developments, themes, and institutions in U.S. society related to women, gender, and sexuality. Using an intersectional lens, the course focuses on women's experiences as they were shaped by race, racism, ethnicity, ethnocentrism, immigration, citizenship, class, gender identity, sexuality, disability, ableism, religion and other factors. The course examines and compares the experiences of North America's diverse population of women including African Americans, Asian Americans, Chicane/Chicanx, Latine/Latinx, Native Americans, and white Americans.

HIST 340 History of California through 1879

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

This course is a survey of the early history of California up through the second state constitutional convention of 1879. Topics addressed include: indigenous people of California prior to contact; Spanish expansion and settlement of California; the Mexican era; U.S. expansion and occupation of California; the

Gold Rush; the first and second constitutional conventions; the relationships between the federal and state governments; and the railroad era.

HIST 341 History of California: 1879 to Present

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

This course is a survey of California history from 1879 to the present. Topics include economic, social, cultural, and political developments. The course addresses the Constitution of the State of California; the nature and processes of California state and local governments; and the relationships between the U.S. government and California's state and local governments. Topics include the impact of the Constitution of 1879, consequences of railroad expansion, and early twentieth-century urbanization. It also includes the impact of the Great Depression and World War II, water projects, protest and reform movements of the 1960s, the rise of conservatism, and recent political trends.

HIST 343 The California Mother Lode

Units: 0.5 - 3

Hours: 9 - 54 hours LEC

Prerequisite: None.

Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better.

Transferable: CSU

This course is a history of the Mother Lode with emphasis on the Gold Rush Era and its effects on the natural environment, human population of the region, and cultural and economic development of California within an international context. Lecture and guided visitations at selected locations in the Mother Lode region complement the classroom instruction. Each combination of classroom and on-site instruction constitutes one half unit of credit. Field trips are required and field trip expense fees may be required.

HIST 353 History of the Islamic World

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course covers the history of Islam as a political, cultural, economic, and social force beginning with its origins in the Arabian Peninsula in the 7th century CE to its encounter with modernity in the 19th and 20th centuries. In particular, the course emphasizes the role of Islam as the major source of Afro-Eurasian connections prior to the modern age. Topics include the world of Muhammad; the origins and initial spread of Islam; the Caliphates; Science and technology in the Islamic world; merchants and trade; Islam in Africa and the Indian Ocean; early-modern empires; and Islam and modernity.

HIST 364 Asian Civilization

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

This course covers the history of Asian Civilizations from the emergence of agriculture and complex societies to 1800 C.E, with particular focus on India, China, and Japan. Topics include the rise of complex societies across Asia; the relationship between agrarian civilizations and the herders of Inner Asia; state-building and imperial expansion; the emergence of the major Asian philosophies and religious faiths, including that of Islam; Asian technology and innovation; the Mongol conquests; and the entrance of Europeans into the Asian world beginning in the 15th century.

HIST 365 Asian Civilization

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

This course is a survey of the political, social, economic, and cultural transformation of India, China, and Japan since 1800. It emphasizes how these countries responded to the challenges of modernity and western imperialism by embracing new ideas, new approaches to statecraft, and new social and cultural norms. Topics include the emergence of western dominance in Asia, the breakdown of states and empires in conjunction with, and partly as a result of, western imperialism, the development of Asian nationalisms and nationalist movements, and the growth of Japanese imperialism and the effects that this had on the rest of Asia.

HIST 367 History of Russia

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

This course is a survey of Russian history from 1861 to the present. It examines the major social, political, and economic developments that have shaped Russian society and culture. Special attention is given to Russian culture, politics, and protest during the 19th century, the revolutions of 1917 and the Bolshevik rise to power, the creation and expansion of the Soviet state under Stalin, the decline and collapse of Soviet power, and Russia in the 21st century.

HIST 373 History of Mexico

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

This course is a survey of the history of Mexico from the pre-classical period to the present. It examines the origins and development of Mexico's political, economic, religious, and intellectual institutions, their influence on Mexican society and culture, and the resultant legacy that is modern Mexico.

HIST 374 History of Latin America to 1830

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course is a general historical survey of Latin American history from the pre-contact indigenous civilizations to the 19th-century nationalist movements in the region. It focuses on the influence of political, economic, cultural, and demographic factors that shaped Latin America.

HIST 375 The History of Modern Latin America and Caribbean

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course offers a general survey of Latin American history from the 19th century to the present, with focus on social, political, economic, and cultural developments. Topics include Latin America and the Caribbean in the global economy, dictators and democracy, African and indigenous cultures, feminism and gender, cultural politics, social movements and revolution, and relations with the United States and the world.

HIST 399 Studying in Italy: Italian History and Culture

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Transferable: CSU

General Education: Local GE L3

This course, offered as a study abroad course in Italy, surveys Italian history to provide a background for exploring and appreciating Italian life and culture. The focus is on examining the historical context of Italian cultural and artistic expression, thereby informing and enriching our understanding and enjoyment of Italian art and culture. In Rome, this course focuses on the ancient and religious sources of Italian culture. In Florence, it explores and examines how human expression in art, literature, and philosophy served to create a new sense of the possible during the Renaissance. This course also

studies how culture reflects human values and how those values can be transformed and at times ennobled by creative genius. A portion of this course may be offered in a TBA component of 25-35 hours which may include museum visits, historical monument and building visits, and Italian cultural and historical site visits.

HIST 480 History of Western Civilization - Honors

Units: 3

Hours: 54 hours LEC

Prerequisite: Placement into ENGL C1000H (formerly ENGWR 480) through the Los Rios placement process OR guided self-placement.

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

C-ID: Part of C-ID HIST 170

This course is a survey of western civilization from its origins in the Ancient Middle East until the Renaissance. This seminar-style course confronts the major historical issues through class discussion. The class challenges students to interpret the past by critically analyzing both primary sources and relevant works by leading historians. Emphasis is on the social, political, economic, cultural and intellectual forces that have served to shape the modern world. This course is not open to students who have completed HIST 300.

HIST 481 History of Western Civilization - Honors

Units: 3

Hours: 54 hours LEC

Prerequisite: Placement into ENGL C1000H (formerly ENGWR 480) through the Los Rios placement process OR guided self-placement.

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

C-ID: C-ID HIST 180; Part of C-ID HIST 170

This course is a survey of western civilization from the Renaissance to the present. This seminar-style course confronts the major historical issues through class discussion. The class challenges students to interpret the past by critically analyzing both primary sources and relevant works by leading historians. Emphasis is on the social, political, economic, cultural and intellectual forces that have served to shape the modern world. This course is not open to students who have completed HIST 302.

HIST C1001H United States History to 1877 - Honors

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID HIST 130

This course was formerly known as HIST 483 History of the United States - Honors.

This course is a historical survey of the United States, from Indigenous North America to the end of Reconstruction. The course also introduces students to historical reasoning skills. This is an honors course. This course covers the time period from first inhabitants to the end of Reconstruction in 1877. This course underscores the continuity of the American experience and emphasizes the roles played by cultural, economic, intellectual, political, and social institutions in American history, with an eye toward understanding the history of multiple ethnic groups in a comparative framework. The course covers the entire area now included in the United States of America. Relationships within the region as well as external powers will be covered. Since this is an honors course, it is conducted in a seminar format and uses an intensive instructional methodology that is designed to challenge motivated students. This course was formerly known as HIST 483 and is not open to students who have successfully completed HIST 483, 310, or C1001.

HIST C1002H United States History since 1865 - Honors

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: ENGL C1000 (Academic Reading and Writing) or ESLW 340 (Advanced Composition) with a grade of "C" or better.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID HIST 140

This course was formerly known as HIST 484 History of the United States - Honors.

This course is a historical survey of the United States from the end of the Civil War to the present. The course also introduces students to historical reasoning skills. This is an honors course. This course underscores the continuity of the American

experience and emphasizes the roles played by cultural, economic, intellectual, political, and social institutions in American history, with an eye toward understanding the history of multiple ethnic groups in a comparative framework. The course covers the entire area now included in the United States of America. Relationships within the region as well as external powers will be covered. In contrast to the traditional course, this Honors course is conducted in a seminar format and uses an intensive instructional methodology designed to challenge motivated students. This course was formerly known as HIST 484 and is not open to students who have successfully completed HIST 484, 311, or C1002.

HIST 494 Topics in History

Units: 0.5 - 4

Hours: 9 - 72 hours LEC

Prerequisite: None.

Advisory: HIST 302

Transferable: CSU

This course provides the opportunity for concentrated study on specialized topics in History. It covers topics from a wide range of academic disciplines including anthropology, economics, engineering, fine arts, history, law, life science, literature, mathematics, philosophy, political science, sociology, psychology and varies in content and scope with the interests and expertise of both the instructors and the students. This course may be taken four times on different topics.

HIST 495 Independent Studies in History

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in the subject of history, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

HIST 499 Experimental Offering in History

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Homeland Security

Overview

The ARC Homeland Security certificate program examines the roots of terrorism, weapons of mass destruction, intelligence analysis, response methods, natural disaster incidents, threat mitigation, crisis negotiation, and conflict resolution. It explores topics directly associated with border security and security for transportation infrastructure, including: seaports, ships, aircraft, trains, train stations, pipelines, and bus systems.

Certificates Offered

Homeland Security Certificate

Associate Dean: Charissa Gorre

Phone: (916) 570-5000

Email: askhb-publicservice@arc.losrios.edu

Certificate

Homeland Security Certificate

This certificate examines the roots of terrorism, weapons of mass destruction, intelligence analysis, response methods, natural disaster incidents, threat mitigation, crisis negotiation, and conflict resolution. It explores topics directly associated with border security and security for transportation infrastructure, including: seaports, ships, aircraft, trains, train stations, highways, bridges, rail lines, pipelines, and bus systems.

Certificate Requirements

Course Code	Course Title	Units
HLS 300	Introduction to Homeland Security	3
HLS 302	Intelligence Analysis and Security Management	3
HLS 304	Transportation and Border Security	3
Total Units:		**9**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- construct a historical time-line reflecting significant terrorist threats and events in the United States and globally.
- classify the roles, functions of, and interdependency among local, federal and international law enforcement and military agencies to counter and combat terrorism.
- differentiate between ethical and unethical attitudes and actions regarding the execution of homeland security practices.
- identify the characteristics, ideologies, motives and behaviors of various extremist and terrorist groups that foster and support terrorist, criminal activities.
- explain operational knowledge of intelligence gathering and analysis processes pertinent to homeland security.
- identify and describe threats to national and international security.
- outline the primary federal, state, and local agencies in the United States that are affiliated with border and transportation security and the ethical parameters in which they operate.
- discuss differences in dealing with security threats for passengers versus freight/cargo transportation systems and border security.
- describe the impact of technology on countering threats to transportation systems and border security.

Homeland Security (HLS) Courses

HLS 300 Introduction to Homeland Security

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course introduces the vocabulary and various components of homeland security. It emphasizes the agencies associated with homeland security and their interrelated duties and relationships. Topics include critical threats confronting homeland security, historical events impacting homeland security, and related state, national, and international laws.

HLS 302 Intelligence Analysis and Security Management

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course examines intelligence analysis and its relationship to the security management of terrorist attacks and natural disasters, as well as vulnerabilities of our national defense and private sectors. It emphasizes ethical principles and how the intelligence community operates in support of federal, state, and local homeland security agencies.

HLS 304 Transportation and Border Security

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course provides an overview of modern border and transportation security challenges and presents different methods to address these challenges. Topics include security for transportation infrastructure related to seaports, ships, aircraft, airports, trains, train stations, trucks, highways, bridges, rail lines, pipelines, and bus systems. It emphasizes technological solutions employed to enhance security of borders and transportation systems.

Honors

Overview

The American River College Honors Program is a community of students and faculty who are dedicated to the pursuit of intellectual and personal enrichment in a diverse and challenging academic environment.

Students with a cumulative grade point average (GPA) of 3.2 or better who have completed at least 15 units of approved Honors coursework earn a Certificate of Achievement noted on the transcript. Most courses in the certificate fulfill requirements for the AA, AS, AA-T, AS-T degrees, the Intersegmental General Education Transfer Curriculum

(IGETC), and the CSU General Education Certification Pattern. Check with an ARC counselor for exceptions.

Completion of the certificate with a cumulative GPA of 3.2 or better allows students to take advantage of transfer agreements with highly selective colleges and universities through the Honors Transfer Council of California and to participate in the Transfer Alliance Program at UCLA. These enhanced transfer partnerships are only available to students who complete the certificate requirements with the minimum GPA, and are in addition to transfer admission guarantees (TAG) or transfer admission agreements (TAA) offered through ARC.

Honors Certificate Eligibility

ARC students are eligible for the Honors Transfer Certificate by completing 15 units of approved Honors coursework. Students who successfully complete five Honors courses receive a transcript notation showing that they have earned the certificate.

In addition to the transcript notation, completion of the certificate with a 3.5 or better GPA makes a student eligible for enhanced prospects for transfer to competitive schools through the ARC Honors Program's partnerships with UCLA, UC Irvine, and other public and private four-year institutions. These enhanced transfer partnerships are only available to students who complete the certificate requirements with the minimum GPA, and are in addition to transfer admission guarantees (TAG) or transfer admission agreements (TAA) offered through ARC.

Certificates Offered

Honors Transfer Certificate

Department Chair: Dr. Rick Ramirez

Phone: (916) 484-8547

Email: ramirea@arc.losrios.edu

Certificate of Achievement

Honors Transfer Certificate

The American River College (ARC) Honors Program is a community of students and faculty who are dedicated to the pursuit of intellectual and personal enrichment in a diverse and challenging academic environment.

Students with a cumulative GPA of 3.2 or better who have completed at least 15 units of approved Honors coursework earn a Certificate of Achievement noted on the transcript. A maximum of 6 units of Honors coursework may be transferred from other colleges. Some courses may need to be petitioned.

Most courses in the certificate fulfill requirements for the ARC A.A., A.S., A.A.-T., A.S.-T. degrees, and the California General Education Transfer Curriculum (Cal-GETC) Pattern. Check with an ARC counselor for exceptions.

Completion of the certificate with a cumulative grade point average (GPA) of 3.2 or better allows students to take advantage of transfer agreements with highly selective colleges and universities through the Honors Transfer Council of California and to participate in the Transfer Alliance Program at UCLA. Honors students must meet with a counselor to ensure completion of ARC graduation and/or transfer requirements. In addition, Honors students should meet regularly with an Honors faculty advisor to ensure completion of the Honors certificate in a timely fashion.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 15 units from the following:		15[1]
ANTH 480	Honors Biological Anthropology (3)	
ANTH 481	Honors Cultural Anthropology (3)	
ASTR 481	Honors Astronomy: Stars, Galaxies, and Cosmology (4)	
BIOL 482	Honors Marine Biology (4)	
CISP 480	Honors Introduction to Structured Programming (5)	
ENGL C1000H	Academic Reading and Writing - Honors (3)	
ENGL 481	Honors College Composition and Literature (3)	
ENGL C1001H	Critical Thinking and Writing - Honors (3)	
HIST 480	History of Western Civilization - Honors (3)	
HIST 481	History of Western Civilization - Honors (3)	
HIST C1001H	United States History to 1877 - Honors (3)	
HIST C1002H	United States History since 1865 - Honors (3)	
NUTRI 481	Honors - Cultural Foods of the World (3)	
POLS 480	Introduction to International Relations - Honors (3)	
POLS C1000H	American Government and Politics - Honors (3)	
PSYC C1000H	Introduction to Psychology - Honors (3)	
PSYC 481	Honors Abnormal Behavior (3)	
SOC 480	Introductory Sociology - Honors (3)	
STAT C1000H	Introduction to Statistics - Honors (4)	
Total Units:		**15**

[1]Up to six units of the Honors Certificate may be earned with non-Honors coursework for which there is an Honors Contract. Contact the Honors Coordinator for details.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze the broad areas of human knowledge that contribute to purposeful and meaningful lives.
- incorporate argumentative reasoning and logic involved in the process of advanced problem-solving in an academic setting.
- investigate advanced methods of inquiry and analysis employed in a variety of disciplines.
- justify personal accomplishments as a highly motivated, self-directed individual in an advanced academic setting.
- demonstrate cultural competence in a diverse academic setting.

Horticulture

Overview

ARC's horticulture department serves professionals, students and members of the community. Horticulture seeks to improve plant culture methods, the sustainability of the environment, enriching economic vitality, and influencing the quality of life of individuals and their communities. Horticulturists have a broad knowledge of ornamental plants, turf grasses, fruit and non-fruit bearing trees, vines, and shrubs. Horticulture is producing the plants, marketing plants and landscape products, designing, installing and maintaining the outdoor and indoor environments where we live, work, and play.

California's horticulture industry is a multi-billion dollar business that provides opportunities at many different levels for qualified individuals. ARC's horticulture program prepares students for self-employment, employment, and self-improvement.

Degrees and Certificates Offered

A.S. in Horticulture

A.S. in Landscape Design Technology

Horticulture Certificate

Landscape Design Technology Certificate

Floristry Certificate

Horticulture Skills Certificate

Landscape Design Certificate

Plant Production Certificate

Sustainable Landscaping Certificate

Dean: Jon Wedding

Department Chair: Cielo Sichi

Phone: (916) 484-8588

Email: MCT@arc.losrios.edu

Associate Degrees

A.S. in Horticulture

This degree represents several areas of study in Horticulture: arboriculture, floriculture, landscape horticulture and landscape design, olericulture, pomology, and viticulture. Horticulture is the science, art and skill of plant cultivation and the focus of the program is to prepare horticulturalists to work and do research in the many disciplines the industry has to offer. The degree program concentrates on plant identification, landscape design, construction and maintenance, soils and plant nutrition, plant production and marketing, irrigation and water conservation, integrated pest management, and sustainable horticultural practices. Work experience is required.

Degree Requirements

Course Code	Course Title	Units
HORT 100	Integrated Pest Management in the Landscape	3
HORT 143	Horticulture Skills Development	1
HORT 298	Work Experience in Horticulture	0.5 -4
HORT 300	Introduction to Horticulture	3
HORT 302	Soils, Soil Management, and Plant Nutrition	3
HORT 305	Plant Identification-Fall Selections	3
HORT 306	Plant Identification-Spring Selections	3
HORT 312	Plant Propagation	3
HORT 316	Plant Production, Facilities and Sales	3
HORT 320	Sustainable Landscape Construction	3
HORT 322	Landscape and Irrigation Graphics and Design	3
HORT 324	Sustainable Landscape Maintenance	3
HORT 329	Landscape CAD Design	3
A minimum of 3 units from the following:		3
BUS 212	Marketing for Small Businesses (1)	
BUS 216	Essential Records for the Small Business (1)	
BUS 218	Management Skills for the Small Business (1)	
HORT 105	Pest Control Licensing or Certification (2)	
HORT 200	Introduction to Retail Floristry (2)	
HORT 308	Viticulture-Vineyard Establishment (1)	

Course Code	Course Title	Units
HORT 309	Viticulture - Sustainable Vineyard Management (1)	
HORT 321	Sustainable and Ecolandscape Practices (3)	
HORT 326	Landscape Design (3)	
HORT 327	Advanced Landscape Design (3)	
HORT 330	Small Gas Engines, Outdoor Power Equipment (4)	
NATR 330	Native Trees and Shrubs of California (4)	
NATR 332	Wildflowers of California (4)	
Total Units:		**37.5 - 41**

The Horticulture Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and select plant materials that are used for landscapes in the northern California regions.
- analyze a landscape site and create a complete and appropriate landscape design for that site.
- analyze a landscape design and apply the sustainable installation procedures necessary to implement the design.
- assess a landscape and apply the sustainable landscape maintenance operation techniques required.
- assess a soil analysis and apply the appropriate steps to provide for plant health and soil sustainability.
- apply the plant production options to produce landscape nursery stock by sexual and asexual methods.
- diagnose plant pest signs and symptoms.
- formulate a pest management plan using the principles of integrated pest management and recognizing the requirements for licensing or certification.
- formulate a marketing plan for a retail nursery and apply the techniques for selling plants and related products.
- utilize the sustainable methods of plant growth and production for ornamental and edible plant materials.
- identify and then apply safe operating procedures and practices to all horticultural operations.
- safely and efficiently operate pesticide application equipment.

Career Information

Horticulturalists find careers in landscape horticulture, which includes the production, marketing and maintenance of landscape plants, as well as the landscape design/build industry, which includes design, construction, and maintenance of outdoor and interior landscapes. Graduates can find careers in the nursery industry, which includes plant production and retail garden centers, and the landscape construction and maintenance industry. Opportunities are with industry, government, education and research, and self employment.

A.S. in Landscape Design Technology

This degree is a bi-disciplinary study of horticulture resources and design fundamentals. It includes an in-depth study of plant materials, irrigation, landscape design, and site planning. Topics such as landscape computer-aided design, surveying, and construction measurement techniques, are also covered.

Degree Requirements

Course Code	Course Title	Units
HORT 110	Irrigation Design	2
HORT 300	Introduction to Horticulture	3
HORT 305	Plant Identification-Fall Selections (3)	3
or HORT 306	Plant Identification-Spring Selections (3)	
HORT 320	Sustainable Landscape Construction	3
HORT 322	Landscape and Irrigation Graphics and Design	3
HORT 326	Landscape Design	3
HORT 329	Landscape CAD Design	3
DESGN 300	Introduction to Design Resources	3
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD) (3)	3 - 4
or [DESGN 303	Introduction to Computer Aided Drafting And Design - Drafting Tools (2)	
and DESGN 304]	Introduction To Applied Computer Aided Drafting and Design - Drafting Standards (2)	
DESGN 302	Technical Documentation with CADD	3
DESGN 351	Surveying For Architectural Design	2
Total Units:		**31 - 32**

The Landscape Design Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern

or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- select plant materials that are used for landscapes.
- solve landscape design problems.
- analyze typical landscape design projects using the design process.
- communicate landscape design solutions effectively.

Career Information

Landscape architects and landscape architect technicians are responsible for the overall design and detailed drawings of a wide range of projects in outdoor spaces including commercial and residential developments, parks and recreation areas, as well as master plans for the management of forested lands. Employment of landscape architects and landscape architect technicians is expected to increase as a result of the increasing emphasis on sustainability land development and design.

Certificates of Achievement

Horticulture Certificate

This certificate represents several areas of study in Horticulture: arboriculture, floriculture, landscape horticulture and landscape design, olericulture, pomology, and viticulture. Horticulture is the science, art and skill of plant cultivation and the focus of the program is to prepare horticulturalists to work and do research in the many disciplines the industry has to offer. The certificate program concentrates on plant identification, landscape design, construction and maintenance, soils and plant nutrition, plant production and marketing, irrigation and water conservation, integrated pest management, and sustainable horticultural practices.

Certificate Requirements

Course Code	Course Title	Units
HORT 100	Integrated Pest Management in the Landscape	3
HORT 143	Horticulture Skills Development	1
HORT 300	Introduction to Horticulture	3
HORT 302	Soils, Soil Management, and Plant Nutrition	3
HORT 305	Plant Identification-Fall Selections	3
HORT 306	Plant Identification-Spring Selections	3
HORT 312	Plant Propagation	3
HORT 316	Plant Production, Facilities and Sales	3
HORT 320	Sustainable Landscape Construction	3
HORT 322	Landscape and Irrigation Graphics and Design	3
HORT 324	Sustainable Landscape Maintenance	3
HORT 329	Landscape CAD Design	3
A minimum of 3 units from the following:		3
BUS 212	Marketing for Small Businesses (1)	
BUS 216	Essential Records for the Small Business (1)	
BUS 218	Management Skills for the Small Business (1)	
HORT 105	Pest Control Licensing or Certification (2)	
HORT 200	Introduction to Retail Floristry (2)	
HORT 308	Viticulture-Vineyard Establishment (1)	
HORT 309	Viticulture - Sustainable Vineyard Management (1)	
HORT 321	Sustainable and Ecolandscape Practices (3)	
HORT 326	Landscape Design (3)	
HORT 327	Advanced Landscape Design (3)	
HORT 330	Small Gas Engines, Outdoor Power Equipment (4)	
NATR 330	Native Trees and Shrubs of California (4)	
NATR 332	Wildflowers of California (4)	
Total Units:		**37**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and select plant materials that are used for landscapes in northern California regions.
- analyze a landscape site and create a complete landscape design for that site.
- analyze a landscape design and apply the sustainable installation procedures necessary to implement the design.
- assess a landscape and apply the sustainable maintenance operation techniques required.
- assess a soil analysis and apply the appropriate procedures for plant health and soil sustainability.
- apply the plant production options to produce landscape nursery stock by sexual and asexual methods.
- diagnose plant pest signs and symptoms.
- formulate a pest management plan using the principles of integrated pest management and recognizing the requirements for licensing or certification.
- utilize the sustainable methods of plant growth and production for ornamental and edible plant materials.
- identify and then apply safe operating procedures and practices to all horticultural operations.

- safely and efficiently operate pesticide application equipment.

Career Information

Horticulturalists find careers in landscape horticulture, which includes the production, marketing and maintenance of landscape plants, as well as the landscape design/build industry, which includes design, construction, and maintenance of outdoor and interior landscapes. Graduates can find careers in the nursery industry, which includes plant production and retail garden centers, and the landscape construction and maintenance industry. Opportunities are with industry, government, education and research, and self employment.

Landscape Design Technology Certificate

This certificate is a bi-disciplinary study of horticulture resources and design fundamentals. It includes an in-depth study of plant materials, irrigation, landscape design, and site planning. Topics such as landscape computer-aided design, surveying, and construction measurement techniques, are also covered.

Certificate Requirements

Course Code	Course Title	Units
HORT 110	Irrigation Design	2
HORT 300	Introduction to Horticulture	3
HORT 305	Plant Identification-Fall Selections (3)	3
or HORT 306	Plant Identification-Spring Selections (3)	
HORT 320	Sustainable Landscape Construction	3
HORT 322	Landscape and Irrigation Graphics and Design	3
HORT 326	Landscape Design	3
HORT 329	Landscape CAD Design	3
DESGN 300	Introduction to Design Resources	3
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD) (3)	3 - 4
or [DESGN 303	Introduction to Computer Aided Drafting And Design - Drafting Tools (2)	
and DESGN 304]	Introduction To Applied Computer Aided Drafting and Design - Drafting Standards (2)	
DESGN 302	Technical Documentation with CADD	3
DESGN 351	Surveying For Architectural Design	2
Total Units:		**31 - 32**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- select plant materials that are used for landscapes.
- solve landscape design problems.
- analyze typical landscape design projects using the design process.
- communicate landscape design solutions effectively.

Career Information

Landscape architects and landscape architect technicians are responsible for the overall design and detailed drawings of a wide range of projects in outdoor spaces including commercial and residential developments, parks and recreation areas, as well as master plans for the management of forested lands. Employment of landscape architects and landscape architect technicians is expected to increase as a result of the increasing emphasis on sustainability land development and design.

Certificates

Floristry Certificate

The Floristry certificate provides well-balanced training in the fundamentals of floral design, the identification of flowers and foliage, the care of fresh cut product and the sources of floral materials. Courses cover special event floral design such as weddings, funerals and holidays, and prepare students to participate in the varied floral enterprises.

Certificate Requirements

Course Code	Course Title	Units
HORT 200	Introduction to Retail Floristry	2
HORT 201	Floral Design	2
HORT 202	Corsage and Wedding Floral Design	2
HORT 203	Sympathy Design and the Mass Market	2
Total Units:		**8**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify floral specimens used in commercial floristry by scientific name and availability
- assess and utilize floral materials and design to create a visually appealing and salable arrangement
- demonstrate methods in the care and merchandising of floral materials
- resource and purchase floral materials
- apply the distinctive marketing skills for both the retail and mass market in the floral industry

Career Information

Completion of the certificate provides satisfactory qualification for employment in retail and mass market floristry industries. The program also is a means to upgrade skills of those already working in the industry.

Horticulture Skills Certificate

This certificate provides individuals with a basic horticulture background and specific experience in landscape installation and plant production. Integrated Pest Management (IPM) skills can be adapted to the needs of each of these horticulture industries.

Certificate Requirements

Course Code	Course Title	Units
HORT 100	Integrated Pest Management in the Landscape	3
HORT 143	Horticulture Skills Development	1
HORT 300	Introduction to Horticulture	3
HORT 312	Plant Propagation	3
HORT 320	Sustainable Landscape Construction	3
Total Units:		**13**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- diagnose plant pest signs and symptoms.
- formulate a pest management plan using the principles of Integrated Pest Management (IPM).
- recognize basic botanical structure and functions and how plants relate to the environment.
- demonstrate the hands-on skills used in plant propagation including seed and vegetative techniques.
- assess and implement hands-on skills of construction operations, such as using wood, pavers, irrigation components, and sustainable soil preparation and grading.
- identify and comply with the state water regulations that affect landscaping.

Career Information

This certificate helps individuals, new to or already in the field, market themselves to both landscape and plant production horticulture fields.

Landscape Design Certificate

This certificate provides individuals with a basic horticulture background and a broad experience in landscape design, including landscape Computer-Assisted Design and Drafting (CADD).

Certificate Requirements

Course Code	Course Title	Units
HORT 300	Introduction to Horticulture	3
HORT 305	Plant Identification-Fall Selections (3)	3
or HORT 306	Plant Identification-Spring Selections (3)	
HORT 320	Sustainable Landscape Construction	3
HORT 322	Landscape and Irrigation Graphics and Design	3
HORT 326	Landscape Design	3
Total Units:		**15**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- recognize basic botanical structure and functions and how plants relate to the environment.
- develop construction drawings using the components included in a set of landscape plans.
- assess and apply the use of drafting equipment and techniques as they relate to landscape design and landscape architecture.
- assess, evaluate, and utilize supportive design techniques such as plant materials, space management, energy conservation, and elevation change and grading.
- demonstrate the various formats for design presentations.
- create a new landscape design project using the CADD software program.

Career Information

Career opportunities exist with design firms and landscape contractors.

Plant Production Certificate

This certificate provides individuals with a basic horticulture background and specific experience in landscape plant production, marketing and sales, facilities, Integrated Pest Management (IPM) skills, and license or certificates requirements.

Certificate Requirements

Course Code	Course Title	Units
HORT 105	Pest Control Licensing or Certification	2
HORT 300	Introduction to Horticulture	3
HORT 312	Plant Propagation	3
HORT 316	Plant Production, Facilities and Sales	3
Total Units:		**11**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- recognize basic botanical structure and functions and how plants relate to the environment
- propagate plants, including seed and vegetative techniques
- diagnose plant pest signs and symptoms
- apply the basic practices involved in commercial nursery operations
- identify the different display techniques and advertising practices used in the nursery industry
- recognize the basic principles of pest control and the requirements for licensing and/or certification

Career Information

Career opportunities exist with plant researchers, wholesale nurseries, and retail nurseries.

Sustainable Landscaping Certificate

This certificate provides students with a basic horticulture background and specific experience in sustainable landscape installation and maintenance, including the use of sustainable principles and practices.

Certificate Requirements

Course Code	Course Title	Units
HORT 110	Irrigation Design	2
HORT 143	Horticulture Skills Development	1
HORT 300	Introduction to Horticulture	3
HORT 305	Plant Identification-Fall Selections (3)	3
or HORT 306	Plant Identification-Spring Selections (3)	
HORT 308	Viticulture-Vineyard Establishment	1
HORT 309	Viticulture - Sustainable Vineyard Management	1
HORT 320	Sustainable Landscape Construction (3)	3
or HORT 324	Sustainable Landscape Maintenance (3)	
Total Units:		**14**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- recognize basic botanical structure and functions and how plants relate to the environment.
- assess and implement hands-on skills of construction operations, such as using wood, pavers, irrigation components, and sustainable soil preparation and grading.
- recognize and comply with the state water regulations that affect landscaping.
- assess and implement the hands-on skills of sustainable landscape management and their techniques.
- utilize irrigation water auditing techniques and select equipment to correctly irrigate, schedule, and conserve water in the landscape.
- compare and contrast conventional and sustainable landscape methods.
- evaluate existing landscapes to enable maintenance with ecologically sustainable practices.
- evaluate sustainable products and methods for use in the landscape.
- demonstrate proper pruning of a plant.
- demonstrate proper techniques of planting and transplanting.
- select a proper plant for a given situation.
- recognize and identify 150 plant species and/or varieties utilizing taxonomic plant key techniques.
- employ the basic principles of irrigation design.

Career Information

Career opportunities include positions with landscape construction and maintenance firms, as well as within the public sector at various levels including cities, counties and state levels.

Horticulture (HORT) Courses

HORT 100 Integrated Pest Management in the Landscape

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Corequisite: HORT 300

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 methods of control.

HORT 105 Pest Control Licensing or Certification

Units: 2

Hours: 36 hours LEC

Prerequisite: HORT 300 with a grade of "C" or better

Advisory: HORT 100

This course introduces the safe and proper use of horticultural chemicals, laws and regulations, and the Integrated Pest Management (IPM) principles involved. It covers the laws and regulations for operators, applicators, and advisors, including the study of weeds, diseases, insects, and accepted standards for control.

HORT 110 Irrigation Design

Units: 2

Hours: 36 hours LEC

Prerequisite: HORT 300 with a grade of "C" or better

This course is a study of water hydraulics and irrigation equipment including drip lines, heads, pipes, irrigation controllers, and valves. Topics include irrigation design, preparing plans, dealing with measurement, head layout, pipe sizing and California's Model Water Efficient Landscape Ordinance.

HORT 140 Advanced Student Projects

Units: 2

Hours: 108 hours LAB

Prerequisite: HORT 300 with a grade of "C" or better; A minimum of 5 units completed in coursework related to the students selected project.

Advisory: HORT 100, 110, 302, 305, 306, 312, 316, 320, 324, or 326 with a grade of "C" or better

This course provides the student with an opportunity to pursue advanced projects which are selected by the student with required department approval.

HORT 143 Horticulture Skills Development

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Corequisite: Completion or current enrollment in a college level horticulture class.

This course offers the opportunity to develop technical, creative, and business skills learned in other horticulture courses. Participation in assigned, supervised projects to expand and enhance knowledge of horticulture practices is included.

HORT 200 Introduction to Retail Floristry

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

This course presents fundamentals of design techniques and skills practiced in the floral industry. Topics include design mechanics, guides to design, identification of flower and foliage shapes and their use, cut flower care, corsage practice, and containers and designers' aids.

HORT 201 Floral Design

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

This course presents the theories and techniques of basic/intermediate floral design. Identification of wholesale sources, origin of product, and seasonal price fluctuations in the industry and market are discussed. This course emphasizes design techniques including line, shape, and form. Field trips may be required.

HORT 202 Corsage and Wedding Floral Design

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

This course presents the history and uses of wedding and body flower designs. The principles, methods, and practices used to create wedding bouquets and arrangements are explored and practiced. The techniques for wiring, taping, and gluing corsages, and the tools and materials for creating them and other body flower designs, are taught and practiced. Field trips may be required.

HORT 203 Sympathy Design and the Mass Market

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

This course presents the theories of sympathy and tribute floral design. Design applications for standing, flat sprays, set work, and casket covers are included, as well as their delivery and setup. The mass marketplace in floral design is explored.

HORT 208 Interior Plants

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

This course examines the indoor plant maintenance business as well as interior plant care for retail use. It includes plant identification and selection, location and design practices, care and maintenance, as well as purchasing and sales aspects. Field trips may be required.

HORT 298 Work Experience in Horticulture

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Horticulture Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of horticulture. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

HORT 299 Experimental Offering in Horticulture

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

HORT 300 Introduction to Horticulture

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

General Education: Local GE L5

Designed to inform those seeking a career in horticulture, this course surveys sustainable principles and practices of horticulture. Emphasis is on plant growth, care and appearance, and how those are influenced by plant structure, function, and growing environment. Topics include plant

naming, growing conditions and processes, cultural practices, propagation, pruning, careers in horticulture, pest problems and control, and use of references for future learning.

HORT 302 Soils, Soil Management, and Plant Nutrition

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Corequisite: HORT 300

Transferable: CSU; UC

General Education: Local GE L5

This course is a study of the nature and properties of soils and their relationship to plant needs. Topics include soil origins and importance, soil and water conservation, life in the soil, and soil fertility. Soil components, structure, and methods to sustain healthy soils and the populations of organisms within and on it are analyzed.

HORT 305 Plant Identification-Fall Selections

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Corequisite: HORT 300

Transferable: CSU; UC

This course is the study of the identification, growth habits, culturally sustainable methods, and uses of ornamental woody and herbaceous plants in the California landscape. Emphasis is on those plants best observed in the fall season and includes both native and non-native species as well as some plants with an edible use component.

HORT 306 Plant Identification-Spring Selections

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Corequisite: HORT 300

Transferable: CSU; UC

This course is the study of the identification, growth habits, culturally sustainable methods, and uses of ornamental woody and herbaceous plants in the California landscape. Emphasis is on those plants best observed in the spring and summer seasons and includes both native and non-native species as well as some plants with an edible use component.

HORT 308 Viticulture-Vineyard Establishment

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Transferable: CSU

This course is an introduction to grape crops for Sacramento and Placer counties. It covers the history and principles of the grape growing industry in California.
Topics include site preparation, vine and rootstock selection, trellis and irrigation system selection, installation procedures, and vine training. Field trips may be required.

HORT 309 Viticulture - Sustainable Vineyard Management

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers sustainable management of vineyards, large and small, to serve the needs of owners while maintaining the environment. Topics include vine growth, fruit development, irrigation, pruning systems and canopy management, grapes as a wildlife habitat, management of the vineyard floor, pest identification and control, and vineyard laws and ordinances. Field trips may be required.

HORT 312 Plant Propagation

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: HORT 300 with a grade of "C" or better

Transferable: CSU

This course is a study of the fundamental principles involved in propagating plants, with special emphasis on types of propagules and techniques utilized to make more plants. Topics include history of plant propagation, tools and facilities, seed and vegetative propagation, media selection, growing propagules on, and sales of plants produced.

HORT 316 Plant Production, Facilities and Sales

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Corequisite: HORT 300

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course is an overview of the practices and facilities used in production and sales of plants and related products and services. Topics include design and use of structures for horticultural production and sales, product selection and maintenance, marketing and sales of horticultural crops and services, employee management, vendor selection, sales area design and layout, advertising, merchandising, and customer service.

HORT 320 Sustainable Landscape Construction

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: HORT 300 with a grade of "C" or better

Transferable: CSU

This course covers the theory and skills needed in the landscape construction industry. Landscape operations include carpentry, masonry, concrete pavers, water-conserving irrigation, watershed preservation and drainage, low-voltage lighting, sustainable soil preparation and drainage, plant materials/turf, plan reading, and estimating and bidding in the landscape trades.

HORT 321 Sustainable and Ecolandscape Practices

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers the application of ecologically sustainable design, construction, and maintenance practices for urban landscapes. Topics present a holistic approach to landscaping including, but not limited to, water conservation, green waste reduction, reduced chemical and inorganic fertilizer use, and the enhancement of natural ecosystems. Field trips may be required.

HORT 322 Landscape and Irrigation Graphics and Design

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: HORT 300 with a grade of "C" or better

Transferable: CSU; UC

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-Design (CADD) software options 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.

HORT 324 Sustainable Landscape Maintenance

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: HORT 300 with a grade of "C" or better

Transferable: 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 326 Landscape Design

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: HORT 322 with a grade of "C" or better

Advisory: HORT 110, 305, and 306

Transferable: CSU

This course is a study of the basic principles and elements of landscape design related to the problem-solving process, design theory and composition, functional and design uses of landscape materials, and client and maintenance criteria.

HORT 327 Advanced Landscape Design

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: HORT 322 with a grade of "C" or better

Transferable: CSU

This course is the study of the advanced and in-depth principles of custom residential landscape design related to proposal writing, site analysis, design development and construction document preparation. Further exploration of design composition is studied as well as the development of spaces and the use of materials based upon a client's program desires.

HORT 329 Landscape CAD Design

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: HORT 322 with a grade of "C" or better

Advisory: DESGN 301

Transferable: CSU

This course is an introduction to computer-aided landscape design and drafting utilizing Computer Aided Drafting and Design (CADD) software to produce professional quality landscape designs for residential and commercial sites. It emphasizes site-plan development, landscape planting, irrigation and detail plans, and the generation of materials lists based on the design created for the site.

HORT 330 Small Gas Engines, Outdoor Power Equipment

Same As: AT 301

Units: 4

Hours: 55 hours LEC; 60 hours LAB

Prerequisite: None.

Transferable: CSU

This course covers the basic operational theory, servicing, adjusting, and maintenance of 2-cycle and 4-cycle small gas engines as they pertain to the automotive and horticulture industries. In addition, the small engine repair skill areas included in the regional, state, and national SkillsUSA competitions are covered. AT 301 and/or HORT 330 may be taken two times for credit for a maximum of 8 units, using different equipment.

HORT 495 Independent Studies in Horticulture

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

HORT 499 Experimental Offering in Horticulture

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Hospitality Management

Overview

American River College is among the most respected culinary arts programs in northern California. The program emphasizes business theory and hands on cooking. Classes focus on job skills and professional fine dining cuisine. The program can be completed in 18 months, including a semester working in the kitchen of The Oak Café, the college's 4-star restaurant. Students also have the opportunity to work in an on-campus retail bakery.

Degrees and Certificates Offered

A.A. in Hospitality Management: Culinary Arts/Restaurant Management

Baking and Pastry Certificate

Culinary Arts/ Restaurant Management Certificate

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Culinary Arts Certificate

Hospitality Management: Restaurant Management Certificate

Dean: Corinne Arrieta Katzorke

Department Chair: Brian Knirk

Phone: (916) 484-8570

Email: AskHB-Arts@arc.losrios.edu

Associate Degree

A.A. in Hospitality Management: Culinary Arts/Restaurant Management

This degree focuses on basic and advanced culinary techniques, related to both hot food and baking. It emphasizes supervisory and management skills, marketing, and financial accountability. The Oak Cafe provides a management training lab for advanced students in the program.

Degree Requirements

Course Code	Course Title	Units
HM 100	Calculations in Foodservice Occupations	3
HM 101	Introductory Culinary Skills	1.5
HM 110	Management and Supervision in the Hospitality Industry	2
HM 115	Advertising and Sales in Food Service	2
HM 120	Beverage Operation	2
HM 150	Catering	3
HM 300	Introduction to Hospitality - Becoming a Chef	3
HM 310	Sanitation, Safety and Equipment	3
HM 315	Food Theory and Preparation	4[1]
HM 320	Breads and Yeast Doughs	2
HM 325	Components of Baking and Pastry	2
HM 340	Cost Control in the Food Service Industry	2
HM 360	Professional Cooking	3
HM 370	Dining Room Management	2[2]
HM 380	Restaurant Management and Production	3[3]
A minimum of 5 units from the following:		5
HM 498	Work Experience in Hospitality Management (0.5 - 4)	
A minimum of 3 units from the following:		3[4]
HM 155	Mediterranean Cuisine (3)	
HM 165	Regional American Cuisine (3)	
HM 180	Garde Manger (3)	
HM 330	Advanced Baking and Pastry (3)	
HM 375	Bakery Management and Production (2)	
Total Units:		**45.5**

[1]HM 315 is a prerequisite for all HM hot-food lab classes

[2]HM 370 HM 370 has a co-requisite of HM 498, requiring a minimum of 8 hours per week in The Oak Caf&#65533;.

[3]HM 380 HM 370 has a co-requisite of HM 498, requiring a minimum of 16 hours per week in The Oak Caf&#65533;.

[4]HM 375 has a corequisite of HM 498, requiring a minimum of two days per week in The Oak Caf&#65533; Bakery.

The Hospitality Management: Culinary Arts/Restaurant Management Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze and design cost effective labor and production schedules.
- analyze and compare methods of internal cost control.
- assess contracts commonly used in the food service industry.
- choose and demonstrate optimal cooking procedures for all categories of foods to include, but not be limited to the following: vegetables, fruits, fats and oils, milk products, eggs, legumes, grains, baked products, poultry, meat, seafood, and soups.
- assess standards and procedures for delivery concepts into appropriate restaurant service.
- construct menus considering food, labor, production costs, and marketing.
- evaluate quality principles to management of the restaurant kitchen, including team building.

Career Information

The hospitality industry is one of the fastest growing market segments available for entry level and professional employees. Businesses including restaurants, hotels, theme parks, bakeries, cruise ships, caterers, and grocery stores are in search of line cooks, entry level and advanced managers, chefs, sous chefs, servers, and more.

Certificates of Achievement

Baking and Pastry Certificate

This certificate provides hands-on learning focused on job skills with an emphasis on baking and pastry. It includes production baking, candies, wedding and specialty cakes, plated desserts, and artisan breads.

Certificate Requirements

Course Code	Course Title	Units
HM 300	Introduction to Hospitality - Becoming a Chef	3
HM 310	Sanitation, Safety and Equipment	3
HM 315	Food Theory and Preparation	4
HM 320	Breads and Yeast Doughs	2
HM 325	Components of Baking and Pastry	2
HM 326	Intermediate Baking Retail Bakery Products	2
HM 328	Intermediate Baking American and European Cakes	2
HM 330	Advanced Baking and Pastry	3
HM 375	Bakery Management and Production	2
A minimum of 2 units from the following:		2
HM 498	Work Experience in Hospitality Management (0.5 - 4)	
Total Units:		**25**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess and demonstrate basic mixing methods for yeast doughs, cakes, cookies, and pastries.
- analyze and critique professional, commercial bakeshop ingredients and supplies.
- analyze quality defects in baked products and specify possible errors in technique or ingredient selection.
- prepare and critique a variety of products including biscuits, artisan breads, Danish pastries, muffins, coffee cakes, pies, tarts, puff pastries, cakes, cookies, pastry cream, pate a choux, icings, souffles, ice creams, and meringues.

Career Information

Opportunities for qualified people in the restaurant field are endless. The demand for trained bakers in all types of restaurants and food service organizations continue to grow.

Culinary Arts/ Restaurant Management Certificate

This certificate focuses on basic and advanced culinary techniques, related to both hot food and baking. It emphasizes supervisory and management skills, marketing, and financial accountability. The Oak Cafe is a small, fine dining restaurant that provides a management training lab for advanced students in the program.

Certificate Requirements

Course Code	Course Title	Units
HM 100	Calculations in Foodservice Occupations	3
HM 101	Introductory Culinary Skills	1.5
HM 110	Management and Supervision in the Hospitality Industry	2
HM 115	Advertising and Sales in Food Service	2
HM 120	Beverage Operation	2
HM 150	Catering	3
HM 300	Introduction to Hospitality - Becoming a Chef	3
HM 310	Sanitation, Safety and Equipment	3
HM 315	Food Theory and Preparation	4[1]
HM 320	Breads and Yeast Doughs	2
HM 325	Components of Baking and Pastry	2
HM 340	Cost Control in the Food Service Industry	2
HM 360	Professional Cooking	3
HM 370	Dining Room Management	2[2]
HM 380	Restaurant Management and Production	3[3]
A minimum of 5 units from the following:		5
HM 498	Work Experience in Hospitality Management (0.5 - 4)	
A minimum of 3 units from the following:		3[4]
HM 155	Mediterranean Cuisine (3)	
HM 165	Regional American Cuisine (3)	
HM 180	Garde Manger (3)	
HM 330	Advanced Baking and Pastry (3)	
HM 375	Bakery Management and Production (2)	
Total Units:		**45.5**

[1]HM 315 is a prerequisite for all HM hot-food lab classes

[2]HM 370 has a co-requisite of HM 498, requiring a minimum of 8 hours per week in The Oak Caf&#xfffd;.

[3]HM 380 HM 370 has a co-requisite of HM 498, requiring a minimum of 16 hours per week in The Oak Caf&#xfffd;.

[4]HM 375 has a co-requisite of HM 498, requiring a minimum of 2 days per week in The Oak Caf&#xfffd; Bakery.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze and design cost effective labor and production schedules.
- analyze and compare methods of internal cost control.

- choose and demonstrate optimal cooking procedures for all categories of foods to include, but not limited to the following: vegetables, fruits, fats and oils, milk products, eggs, legumes, grains, baked products, poultry, meat, seafood, and soups.
- assess standards and procedures for delivery concepts into appropriate restaurant service.
- construct menus considering food, labor, production costs, and marketing.
- evaluate quality principles to the management of the restaurant kitchen, including team building.

Career Information

Opportunities for qualified people in the restaurant field are endless. The demand for trained cooks, chefs, and managers in all types of restaurants and food service organizations continues to grow.

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Culinary Arts Certificate

This Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Culinary Arts offers advanced reading, writing, listening, and speaking skills at a post secondary level for English learners combined with introductory hospitality management skills. The combination of these skills can be used along their pathways to degrees, certificates, or transfer, and for use in multilingual work environments.

Certificate Requirements

Course Code	Course Title	Units
ESL 315	Intermediate-High Integrated Reading and Writing	6
ESL 325	Advanced-Low Integrated Reading and Writing	6
ESLL 320	Advanced-Low Listening and Speaking	3
HM 101	Introductory Culinary Skills	1.5
HM 300	Introduction to Hospitality - Becoming a Chef	3
Total Units:		**19.5**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- write formal academic essays as well as apply techniques of written communication, sentence structure, word usage, punctuation, and spelling.
- employ reading strategies, such as summarizing, paraphrasing, and quoting and integrating outside sources into writing.
- analyze written communication and compose and organize paragraphs into effective documents.
- convey intended meaning, including accuracy in sound production, syllabification, and intonation.
- formulate and use a variety of interactive strategies effectively such as clarification, polite interruption, and agreement/disagreement strategies.
- participate in in-depth discussions effectively, take clear notes, and give oral presentations in a business/work environment.
- employ skills required for all entry-level food preparation courses.
- demonstrate skills in equipment utilization, weights, measurements, knife cut identification, speed and accuracy, as well as kitchen product identification and utilization.
- convey the history of the hospitality and culinary professions, explore the numerous avenues of opportunity, and study the advantages of continuing education in the field.
- demonstrate background knowledge of and approaches of successful chefs and restaurateurs.

Career Information

This certificate supports course work in the hospitality management profession, including in multilingual work environments.

Hospitality Management: Restaurant Management Certificate

This Certificate provides hands-on learning with an emphasis on supervisory and management skills in the restaurant environment. Management and the front-of-the-house skills are emphasized, with students learning basic culinary skills. The Oak Cafe is a small, fine dining restaurant that provides a management training lab for advanced students in the program.

Certificate Requirements

Course Code	Course Title	Units
HM 100	Calculations in Foodservice Occupations	3
HM 110	Management and Supervision in the Hospitality Industry	2
HM 115	Advertising and Sales in Food Service	2
HM 120	Beverage Operation	2
HM 300	Introduction to Hospitality - Becoming a Chef	3
HM 310	Sanitation, Safety and Equipment	3
HM 315	Food Theory and Preparation	4

Course Code	Course Title	Units
HM 340	Cost Control in the Food Service Industry	2
HM 370	Dining Room Management	2[1]
A minimum of 5 units from the following:		5
HM 498	Work Experience in Hospitality Management (0.5 - 4)	
Total Units:		**28**

[1]HM 370 requires an additional minimum of 8 hours per week in The Oak Cafe

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze and design cost effective labor and production schedules.
- analyze and compare methods of internal cost control.
- assess standards and procedures for delivery concepts into appropriate restaurant service.
- construct menus considering food, labor, production costs, and marketing.
- evaluate quality principles to the management of a restaurant, including team building and motivation.

Career Information

The continued growth of the hospitality industry has resulted in an increased need for qualified managers, both entry level and advanced, in all levels of restaurants, hotels, bakeries and other food service and hospitality establishments.

Hospitality Management (HM) Courses

HM 100 Calculations in Foodservice Occupations

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

This course is a study of mathematical principles in the context of commercial food production. Topics include fractions, percentages, recipe conversions, yields, weights and measures, product yield tests, and recipe and food cost analysis.

HM 101 Introductory Culinary Skills

Units: 1.5

Hours: 27 hours LEC

Prerequisite: None.

This course introduces the foundational skills required for all entry-level food preparation courses. Topics include the development of job skills, equipment utilization, weights, measurements, knife cut identification, speed and accuracy, as well as kitchen product identification and utilization.

HM 110 Management and Supervision in the Hospitality Industry

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course covers the effective management of human resources in the hospitality industry. It includes the study of the functions of both management and leadership, including planning, recruitment, selection, training, performance management, coaching, counseling, and discipline. It also emphasizes management and leadership theories and application.

HM 115 Advertising and Sales in Food Service

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course introduces principles involved in advertising for food service establishments. Topics covered include menu planning, design, and pricing; marketing plans; market information systems; consumer behavior; and internal and external promotions.

HM 120 Beverage Operation

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course is a study of beverages, both alcoholic and non-alcoholic, used in the food service industry. Topics include non-alcoholic beverages, spirits, beer, and wine, including their production methods and regions, quality and characteristics. Beverage service, wine analysis, service and pairing with food are also covered, as are government regulations, licenses, and product costing. Field trips may be required.

HM 150 Catering

Units: 3

Hours: 18 hours LEC; 108 hours LAB

Prerequisite: HM 315 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course covers the business and culinary aspects of catering and large-scale food production. It includes the study of starting a catering business, laws, licenses, taxes, insurance and contracts, menu development, pricing, and staffing. It also emphasizes quality and quantity production. On- and off-campus catering events are required. A portion of this course may be offered in a TBA component of 6-20 hours which may include setting tables, preparing food, and serving food for catered events.

HM 155 Mediterranean Cuisine

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: HM 315 with a grade of "C" or better; AND HM 310 (Sanitation, Safety, and Equipment) with a grade of "C" or better OR a CA Foodhandler's Card.

Advisory: HM 100

This course provides an in-depth look at the ingredients and culinary techniques used in preparing foods from the Mediterranean including France, Italy, Sicily, Greece, Spain, and North Africa, and regional focuses within these areas. The laboratory component includes skills development, production, and the use of equipment specific to the preparation of Mediterranean foods.

HM 165 Regional American Cuisine

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: HM 315 with a grade of "C" or better; AND HM 310 (Sanitation, Safety and Equipment) with a grade of "C" or better OR a CA Foodhandler's Card.

Advisory: HM 100

This course presents the study of ingredients and culinary techniques used in the preparation of foods from a variety of North American cuisines, including New England, Floribbean, Cajun, Creole, Californian, Midwestern, Southern, and Pacific Northwestern. Topics include the foods indigenous to the regions and the influences of early settlers. The laboratory component includes skills development, production, and the use of equipment specific to those individual areas.

HM 180 Garde Manger

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: HM 315 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course focuses on the art of the cold kitchen with emphasis on both modern and classical techniques. Topics include hors d'oeuvre, canape, salads, brining, pickling, curing, and smoking. This course also includes basic charcuterie with emphasis on forcemeats, mousselines, terrines, pate, galantines, and sausages.

HM 290 Competitive Culinary Training

Units: 2 - 4

Hours: 18 hours LEC; 54 - 162 hours LAB

Prerequisite: HM 315 with a grade of "C" or better

This course is a cooperative effort between the college, The American Culinary Federation and The Capital Chefs' Association. This course offers the skills necessary to compete in regional and national culinary competitions, using the American Culinary Federation format. 54 hours per unit of TBA practices include knife skills and hot food preparation. Field trips to local restaurants are required to work with local chefs. This course may be taken up to 4 times for credit.

HM 295 Independent Studies in Hospitality Management

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at

American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

HM 297 Internship in Hospitality Management

Units: 1 - 4

Hours: 6 hours LEC; 36 - 198 hours LAB

Prerequisite: None.

Enrollment Limitation: Must have completed 15 units in Hospitality Management with a grade of "C" or better.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course is a cooperative effort between the college and hospitality industries in the community to provide training through practical on-the-job experience. Internship sponsors/employers assist in the acquisition of skills and application of knowledge learned in the classroom. A portion of this course may be offered in a TBA component of 36 - 198 hours which may include setting tables, setting up food, and serving food.

HM 299 Experimental Offering in Hospitality Management

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

HM 300 Introduction to Hospitality - Becoming a Chef

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers the history of the hospitality and culinary professions, explores the numerous avenues of opportunity, and studies the advantages of continuing education in the field. It also covers the backgrounds and approaches of successful chefs and restaurateurs. Field trips are required.

HM 310 Sanitation, Safety and Equipment

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course covers all phases of food sanitation, including the causes, controls and investigation of illness related to food contamination. It covers sanitary practices in food preparation; proper dishwashing procedures, sanitation of kitchen, dining room, and all equipment; cleaning materials and procedures and garbage and refuse disposal. This course includes general safety precautions, maintenance and operation of appropriate food service equipment, along with elements of kitchen planning and types of equipment used. Successful completion of this course results in Servsafe certification.

HM 315 Food Theory and Preparation

Units: 4

Hours: 36 hours LEC; 108 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course is a comprehensive study of basic principles of food science, theory, and techniques involved in food preparation. It includes a study of the factors that influence foods and the changes which occur in foods during preparation. It also emphasizes basic cooking skills, theory application, product, and quality identification.

HM 320 Breads and Yeast Doughs

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: HM 100 with a grade of "C" or better, or placement through the assessment process.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course covers theory and principles of doughs, yeast, and pastries with emphasis in bread production, sweet and savory doughs, and egg doughs. It includes the study of croissant dough, puff dough, pate-a-choux, traditional breakfast pastries, and American cookies and teacakes. All content is intended for students interested in commercial restaurants, bakeries, and other food service facilities.

HM 325 Components of Baking and Pastry

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: HM 320 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course covers the theory and principles of baking and pastry. It focuses on pies, galettes, tarts, pate a choux, cheesecakes, and custard based desserts. This course is intended for students interested in commercial application in restaurants, bakeries, and other food service facilities.

HM 326 Intermediate Baking Retail Bakery Products

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: HM 320 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course covers the theory and principles of baking and pastry with an emphasis on products commonly found in retail bakeries. It focuses on rich doughs, cookies, chocolate and puff pastry applications. This course is intended for students interested in commercial applications in bakeries, restaurants, and other food service facilities.

HM 328 Intermediate Baking American and European Cakes

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: HM 320 with a grade of "C" or better

Transferable: CSU

This course covers the theory and principles of both American and European cake tradition. It focuses on baking methods, ingredient selection, filling, and finishing components and techniques. This course is intended for students interested in commercial bakery application.

HM 330 Advanced Baking and Pastry

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: HM 310, 320, and 325 with grades of "C" or better

Transferable: CSU

This course focuses on commercial production of baked products, pastries, candies, restaurant style desserts, and wedding cakes. It emphasizes advanced baking science and commercial production. Products include European style breads, restaurant style plate presentation, frozen desserts, tortes, cakes, sauces, tarts, pulled sugar, piping, and chocolate work. This course also emphasizes the production of high quality products and professional presentation. Field trips to professional bakeries are required.

HM 340 Cost Control in the Food Service Industry

Units: 2

Hours: 36 hours LEC

Prerequisite: HM 100 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course covers accounting and cost control principles in the food service industry. It includes the use of accounting techniques to analyze food and labor cost control, business operations, budgeting, financing, and profit and loss statements.

HM 360 Professional Cooking

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: HM 315 with a grade of "C" or better

Advisory: HM 100 and 310

Transferable: CSU

This course covers intermediate and advanced culinary techniques. It includes production standards, recipe analysis, presentation, stocks, sauces, and major ingredients used in professional cooking. The laboratory component includes use of equipment, skills development, and time management in the commercial kitchen.

HM 370 Dining Room Management

Units: 2

Hours: 36 hours LEC

Prerequisite: HM 100 and 310 with grades of "C" or better

Corequisite: HM 498, to include a minimum of eight hours per week of work experience in the operation of the front of the house for The Oak Caf&#xfffd; at American River College

Transferable: CSU

This course focuses on restaurant management with emphasis on service and the dining room. Topics include the historical view of service, quality, and exceeding guest expectations, methods of service, management of service operations and personnel, internal and external marketing, and daily reports and controls. The work experience component allows for hands-on experience running the dining room of the Oak Caf&#65533; two days a week.

HM 375 Bakery Management and Production

Units: 2

Hours: 36 hours LEC

Prerequisite: HM 310, 315, 320, and 325 with grades of "C" or better

Corequisite: HM 498

Transferable: CSU

This course focuses on bakery production, merchandising, and management for a professional bakery/cafe outlet. It includes production techniques, recipe development, customer service, advertising and promotion, menu planning, costing, production, and staff scheduling. Work experience takes place in the Oak Cafe Bakery two days a week.

HM 380 Restaurant Management and Production

Units: 3

Hours: 54 hours LEC

Prerequisite: HM 100, 310, 315, 320, 325, and 360 with grades of "C" or better, or placement through the assessment process.

Corequisite: Concurrent enrollment in HM 498 (to include a minimum of 16 hours per week of work experience in the commercial kitchen of The Oak Caf&#65533; American River).

Transferable: CSU

This course provides an in-depth look at restaurant management with emphasis on the kitchen. It includes the study of successful restaurant concepts, food styles and ethnic influences, production methods and standards, menu design (including specific purchasing and cost control), application of sanitation and safety standards, employee scheduling, motivation and supervision, and product marketing. These concepts are emphasized in the work experience corequisite. Field trips may be required.

HM 494 Topics in Hospitality Management

Units: 0.5 - 4

Hours: 9 - 72 hours LEC

Prerequisite: None.

Transferable: CSU

This course is designed to give students an opportunity to study topics in Hospitality which are job oriented and not included in current offerings. The course may be repeated for up to 6 units of credit provided there is no duplication of topics.

HM 495 Independent Studies in Hospitality Management

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

HM 498 Work Experience in Hospitality Management

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Hospitality Management Program to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of hospitality management. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

HM 499 Experimental Offering in Hospitality Management

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Human Career Development

Overview

American River College's Human Career Development courses are designed to help students achieve success in college through a variety of classes, which include study skills, career exploration, college success, transferring to four year institutions, life skills, peer mentoring, and academic learning strategies for students with specific learning disabilities.

Dean: Nisha Beckhorn

Department Chair: Reyna Moore

Phone: (916) 484-8572

Human/Career Development (HCD) Courses

HCD 111 College Discovery Program

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

General Education: Local GE L7B

This course explores options and resources relevant to student success at American River College. It covers academic and personal goal-setting, college resources, academic requirements, basic study skills development, and strategies compatible with academic success.

HCD 114 Human Potential Seminar

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

General Education: Local GE L7B

This course provides an in-depth examination of techniques and strategies to be used in enhancing a student's chance for academic success in college. It is designed for students who need assistance to achieve their goals in higher education. Topics include motivation, goal setting, communication skills, time management, exam preparation, note taking, reading college textbooks, and the use of technology as it relates to being a student.

HCD 115 Orientation to College

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course is an introduction to programs and services at American River College. Topics include procedures and college requirements, steps to success, and college resources.

HCD 122 Study Skills

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

General Education: Local GE L7B

This course covers specific study skills strategies. It provides the opportunity to analyze attitudes toward studying and current study skills or 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 299 Experimental Offering in Human Career Development

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

HCD 310 College Success

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitation: HCD 310, HCD 318 and HCD 382 combined: maximum credit, 3 units)

General Education: Local GE L7B

This course covers the skills and knowledge necessary for college success, as well as personal issues that are commonly encountered by many college students. Topics include motivation, self-discipline, learning styles, memory development, time management, communication skills, goal-setting, career planning, study skills and techniques, and critical thinking skills. Campus resources, college regulations, and information competency are also addressed. This course is highly recommended for first time college students and/or continuing college students who would benefit. Field trips may be required.

HCD 318 Transfer: Making It Happen

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Advisory: Eligible for ENGRD 116 AND ENGWR 101; OR ESLR 320 AND ESLW 320

Transferable: CSU; UC (UC credit limitation: HCD 310, HCD 318 and HCD 382 combined: maximum credit, 3 units)

General Education: Local GE L7B

This course provides a comprehensive study of the university transfer process as it relates to community college students. Topics include an overview of American higher education, student support services, major selection, college research, transfer admissions requirements, the college application process, transfer resources, transitional issues, and preparation for graduate and professional education. Field trips may be required.

HCD 330 Life and Career Planning

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course is a comprehensive approach to life and career planning based on extensive interests, personality type, values, and skills assessments. Personal and career goals are formulated using career research and decision-making strategies.

HCD 331 Career and Job Search Strategies

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: HCD 330

Transferable: CSU

General Education: Local GE L7B

This course assists students preparing for the current job market. Topics include researching career fields, developing specific career/educational goals, informational interviewing, internships, professional networking, resume writing, interviewing skills, and current job search strategies.

HCD 336 Exploring Health Careers

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Transferable: CSU

General Education: Local GE L7B

This course introduces a wide variety of healthcare and healthcare-related occupations, emphasizing educational programs and career opportunities. In this course, students explore a wide range of healthcare and related professions, discover educational pathways, and learn how to match their interests, skills, and values to potential careers. Students also

gain hands-on experience with career research and develop a personalized education and career plan to help guide their next steps.

HCD 364 Introduction to Peer Mentoring

Units: 1.5 - 4

Hours: 18 hours LEC; 27 - 162 hours LAB

Prerequisite: HCD 111, 114, 115, 310, or 318 with a grade of "C" or better

Transferable: CSU

This course offers instruction on the role of the peer mentor at the community college level. Topics include skills and strategies associated with interpersonal communication, peer leadership, collaborative learning, problem solving, and assisting students in how to effectively and efficiently assist their peers in managing college and life experiences. This course is only open to students who have been selected to serve as peer mentors in a program such as the First Year Experience, Journey program, Extended Opportunity Programs & Services, and learning communities.

HCD 382 Learning Strategies for College and Life

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: HCD 310, HCD 318 and HCD 382 combined: maximum credit, 3 units)

General Education: Local GE L7B

This course provides an inclusive environment for learning to support students in developing skills for academic, personal, and career success. Using principles of metacognition and growth mindset, students examine how learning differences, including disabilities, and other barriers influence learning and performance. Students apply evidence-based strategies related to organization, time management, motivation, memory, note-taking, study skills, testing techniques, stress management, personal wellness, communication, and critical thinking. The course also emphasizes assistive and educational technologies, self-advocacy and transition skills, disability awareness, and the effective use of college and community resources to support college success and lifelong learning.

HCD 390 Identity and Psychosocial Well-Being

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B

This course provides an examination of psychosocial issues and the development of individual identities as they relate to daily life and higher education. Using race, culture, and education as a frame of reference, issues of inequality and social justice are explored to discover their influence on personal development, learning, and socioeconomic status. Students will foster an understanding of their personal development using the course's concepts. Topics include the history and culture of higher education, socialization theories, motivation, self-esteem, identity development, learning theories, memory development, critical thinking skills, and goal setting.

HCD 495 Independent Studies in Human Career Development

Units: 1 - 3

Prerequisite: None.

Transferable: CSU

HCD 499 Experimental Offering in Human Career Development

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Humanities and Religious Studies

Overview

Humanities (HUM) & Religious Studies (RLST) courses recognize and explore the dynamics of difference through interdisciplinary study, appreciation, and analysis of world cultures from ancient times to the present. Humanities students gain comprehensive, cross-cultural perspectives on diverse human communities by examining literature, visual arts, music, drama, film, philosophy, history, and religion. Religions are powerful forces that have shaped and continue to shape the world's history, cultures, politics, the pursuit of science, ethics, economics, violence, peace, power, marginalization, justice, and injustice. Religious Studies students gain excellent critical thinking skills by discerning and analyzing religions' roles in diverse cultural, political, and social movements through multiple disciplinary lenses, including history, anthropology, sociology, psychology, philosophy, cultural studies, and postcolonial studies. Our approach is non-devotional and academic, which means we acknowledge that there are multiple authentic representations of religious expression in the world.

Dean: Matt Wright

Department Chair: Bill Zangeneh-Lester

Phone: (916) 484-8283

Email: AskHB-PCS@arc.losrios.edu

Humanities (HUM) Courses

HUM 300 Classical Humanities

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course is a survey of Western culture that focuses on the human values expressed through painting, sculpture, architecture, music, literature, and philosophy. Emphasis is on the civilizations of Greece, Rome, and the Middle Ages. Field trips may be required.

HUM 301 Introduction to the Humanities

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This is a non-chronological course that introduces the humanities, primarily architecture, music, painting, poetry, sculpture, theatre, and film. It emphasizes identifying, appreciating, analyzing, interpreting, and understanding various significant arts and how they have shaped our understanding of the world.

HUM 310 Modern Humanities

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course is a survey of Western culture that focuses on the human values expressed through painting, sculpture, architecture, music, literature, and philosophy. Emphasis is on the period from the Renaissance to the Modern Age. Field trips may be required.

HUM 320 Asian Humanities

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course surveys traditions, cultures, literatures, art, music, and film of India, China, and Japan from ancient times to the present. Emphasis is on the inter-relationships of the arts, literatures, and philosophies in their historical contexts within each geographical area. Topics may include arts and cultures of other Asian countries such as Vietnam, Laos, Cambodia, Thailand, and Korea.

HUM 326 Middle Eastern Humanities

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course surveys the cultures of the Middle East, with an emphasis on the analysis and appreciation of the arts, architecture, music, and sacred and secular texts of Egypt, Israel, Saudi Arabia, Iran, Iraq, Turkey, and other countries from ancient to modern times, as they apply to cultural and political developments.

HUM 330 Humanities of the Americas

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course examines the fine arts of the Western Hemisphere from antiquity to contemporary times, with an emphasis on an awareness of and a sensitivity to the literature, philosophy, art, and music of the past and present. It compares the various cultures indigenous to the Western Hemisphere both among themselves and in contrast to the cultures of Europe on their arrival in the 15th century. The course explores the ethnic and cultural conflicts and resolutions that constitute the confluence of ideas and beliefs in the Americas. It provides specific attention to the distinctively American aspects of the arts and their difference from the European tradition.

HUM 494 Topics in Humanities

Units: 0.5 - 4

Hours: 9 - 72 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course provides the opportunity for concentrated study on specialized topics in the Humanities. Each offering focuses on the integration of arts and ideas in the works of a particular time and place and/or illuminates a selected theme. Refer to class schedule for current topic. Individual field trips may be required.

HUM 495 Independent Studies in Humanities

Units: 1 - 3

Prerequisite: None.

Transferable: CSU

HUM 499 Experimental Offering in Humanities

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Religious Studies (RLST) Courses

RLST 299 Experimental Offering in Religious Studies

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

RLST 301 Introduction to World Religions

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course surveys selected major world religions. Emphasis is on the origins, development, beliefs, practices, social ethics, and ethnic/cultural issues of indigenous tribal religions, Hinduism, Sikhism, Jainism, Buddhism, Confucianism, Taoism, Shintoism, Judaism, Christianity, and Islam. This course focuses on the central beliefs and practices of these religions using selected material from each religion's sacred texts and arts. In-person and/or virtual field trips may be required. This course is formerly known as HUM 355 - Introduction to World Religions. This course is not open to students who have completed HUM 355.

RLST 302 Introduction to Atheism

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This academic and non-sectarian course emphasizes the historical and cultural frameworks of atheism. It takes a basic, integrated humanities approach to global non-religious traditions. This course analyzes a broad range of visual and performance arts, as well as literary documents, that explore diverse atheist philosophies over time and around the world. It reviews the difference between atheism and related conceptual traditions in creative expression. This course studies works and ideas comparatively, analyzing their relation to their contexts and to their impacts. In-person and/or virtual field trips may be required. This course is formerly known as HUM 302 - Global Humanities:
Atheism in Creativity, Thought, and Inspiration Traditions. This course is not open to students who have completed HUM 302.

RLST 310 Introduction to the Hebrew Bible

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This academic and non-sectarian course provides a literary, theological, and historical approach to the Hebrew Bible (also called the Old Testament). Ancient Israelite society and beliefs prior to the Common Era are explored primarily through a study of this biblical text, supported by the study of Middle Eastern cultural artifacts, non-biblical texts, and scholarly theories and archaeological studies related to the Hebrew Bible. In-person and/or virtual field trips may be required. This course is formerly known as HUM 360 - Introduction to the Old Testament (The Hebrew Bible). This course is not open to students who have completed HUM 360.

RLST 311 Introduction to the New Testament

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This academic and non-sectarian course provides a literary, theological, and historical approach to the New Testament. These canonical texts of the early Christian community are analyzed in relation to both Judaism and the Greco-Roman world. Topics include contemporaneous religious ideas about the Messiah, the afterlife, the origin of the gospels, the nature of inspiration, transmission of documents and ideas, important Jewish groups, the politics of Palestine under the Romans, and the role of Paul. In-person and/or virtual field trips may be required. This course is formerly known as HUM 365 - Introduction to the New Testament. This course is not open to students who have completed HUM 365.

RLST 313 Introduction to Islam

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course is a comprehensive introduction to Islamic cultures in a variety of geographic settings from the 7th century to the present, with emphasis on religious/philosophical concepts, and their expression in literature and the arts. It focuses on Arab, Persian, African, Asian, and American contributions. Topics include the origins and development of the religion in its formative period (the prophetic career of the Prophet Muhammad, the Qur'an, Islamic belief and ritual, Islamic law, early artistic expressions, and popular spirituality) as well as debates surrounding Islam in the contemporary world. In-person and/or virtual field trips may be required. This course is formerly known as HUM 324 - Global Islam: Culture and Civilization. This course is not open to students who have completed HUM 324.

RLST 499 Experimental Offering in Religious Studies

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Interdisciplinary Studies

Overview

ARC's Interdisciplinary Studies program offers an English Communication and Literature Degree, History of the Creative Arts Degree, The Individual and Society Degree, CSU General Education Certificate, Intersegmental General Education Transfer (IGETC) Certificate, and Honors Transfer Certificate.

Degrees and Certificates Offered

A.A. in English Communication and Literature

A.A. in History of the Creative Arts

A.A. in Language Studies

A.A. in Social Science

A.A. in Society and the Individual

Cal-GETC Certificate

Phone: (916) 484-8478

Email: SkryagT@arc.losrios.edu

Associate Degrees

A.A. in English Communication and Literature

This degree emphasizes verbal and written communication skills, and the study of literature. It offers a general background in communication skills which may be used in the work place. In addition to earning the degree, students who work closely with their counselor may also fulfill significant lower-division requirements of four-year colleges/universities in English Composition, Literature and Communication.

Degree Requirements

Course Code	Course Title	Units
A minimum of 3 units from the following:		3
COMM C1000	Introduction to Public Speaking (3)	
COMM 331	Group Discussion (3)	
COMM 361	The Communication Experience (3)	
ENGL 301	College Composition and Literature (3)	
or ENGL 481	Honors College Composition and Literature (3)	
ENGL C1001	Critical Thinking and Writing (3)	
or ENGL C1001H	Critical Thinking and Writing - Honors (3)	
ENGL C1003	Critical Thinking and Writing through Literature (4)	
A minimum of 15 units from the following:		15
Any course not already used from the prior list or		
COMM 302	Persuasive Speech (3)	
COMM 311	Argumentation and Debate (3)	
COMM C1004	Interpersonal Communication (3)	
ENGLT 300	Introduction to Fiction (3)	
ENGLT 304	Introduction to Poetry (3)	
ENGLT 308	The Graphic Novel and Manga (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 327	Literature of California (3)	
ENGLT 335	Latino, Mexican-American, and Chicano Literature (3)	
ENGLT 338	Native American Literature (3)	
ENGLT 340	World Literature I (3)	
ENGLT 341	World Literature II (3)	
ENGLT 345	Mythologies of the World (3)	
ENGLT 360	Women in Literature (3)	
ENGLT 365	Introduction to Gay, Lesbian, Bisexual and Transgender Literature (3)	
ENGLT 370	Children and Literature (3)	
ENGLT 378	Young Adult Literature (3)	
ENGLT 380	Introduction to Shakespeare (3)	
ENGLT 382	Introduction to Dramatic Literature (3)	
ENGLT 392	Science Fiction and Fantasy (3)	
ENGLT 403	Film Adaptations (3)	
Total Units:		**18**

The English Communication and Literature Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply the elements of style in writing.
- evaluate premises, both explicitly stated and implied.
- maximize communication effectiveness by planning and adapting to specific audiences.

- write analytically about literature.
- examine fiction as a reflection of the authors' cultures and values.

A.A. in History of the Creative Arts

This degree provides an area of emphasis in the arts and humanities. It is intended for students who plan to transfer to a four-year college/university to earn a baccalaureate degree.

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18
ARTH 300	Art Appreciation (3)	
ARTH C1100	Survey of Art from Prehistory to the Medieval Era (3)	
ARTH 308	Renaissance Tradition in Art (3)	
ARTH 310	Modern Art (3)	
ARTH 322	Art History of the Non-Western World (3)	
ARTH 333	Introduction to Islamic Art (3)	
ARTH 334	International Contemporary Art (3)	
ARTNM 305	History of Graphic Design (3)	
FASHN 330	History of Western World Fashion (3)	
HUM 300	Classical Humanities (3)	
HUM 301	Introduction to the Humanities (3)	
HUM 310	Modern Humanities (3)	
HUM 320	Asian Humanities (3)	
HUM 326	Middle Eastern Humanities (3)	
HUM 330	Humanities of the Americas (3)	
MUFHL 300	Introduction to Music (3)	
MUFHL 308	Introduction to Music: Rock & Roll (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)	
MUFHL 315	Jazz History (3)	
MUFHL 330	World Music (3)	
RLST 301	Introduction to World Religions (3)	
RLST 302	Introduction to Atheism (3)	
RLST 310	Introduction to the Hebrew Bible (3)	
RLST 311	Introduction to the New Testament (3)	
RLST 313	Introduction to Islam (3)	
TA 300	Introduction to the Theatre (3)	
TA 302	History and Theory of the Theatre I (3)	
TA 303	History and Theory of the Theatre II (3)	
TA 306	Diversity in American Drama (1960 to Present) (3)	
TAFILM 300	Introduction to Film (3)	
TAFILM 302	History of Film (3)	
TAFILM 303	History of Film: 1880's through 1950's (3)	
TAFILM 304	History of Film: 1950's to Present (3)	
TAFILM 307	Diversity in American Film (3)	
TAFILM 320	Cinema Genres (3)	
Total Units:		**18**

The History of the Creative Arts Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- recognize the role of the arts in society.
- analyze the influences of social, political, and ethnic issues on the arts.
- compare and contrast styles of artistic expressions.
- assess the historical, artistic, social, and philosophical environments in an artistic genre.

A.A. in Language Studies

This degree provides an area of emphasis in communication skills in both English and foreign languages. It is intended for students wishing to develop communication skills for the workplace. Students who work closely with their counselors can use this area of emphasis to prepare for majoring at a four-year college in world languages as well as any other majors which require proficiency in one or more world languages.

Degree Requirements

Course Code	Course Title	Units
A minimum of 6 units from the following:		6

Course Code	Course Title	Units
COMM C1000	Introduction to Public Speaking (3)	
COMM 331	Group Discussion (3)	
COMM 361	The Communication Experience (3)	
COMM 362	Mediated Communication (3)	
ENGL C1000	Academic Reading and Writing (3)	
or ENGL C1000H	Academic Reading and Writing - Honors (3)	
ENGL C1001	Critical Thinking and Writing (3)	
or ENGL C1001H	Critical Thinking and Writing - Honors (3)	
ENGL C1003	Critical Thinking and Writing through Literature (4)	
ENGL 301	College Composition and Literature (3)	
or ENGL 481	Honors College Composition and Literature (3)	
A minimum of 12 units from the following:		12
All 12 units from this list must be completed in a single language.		
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 318	American Sign Language V (4)	
GERM 401	Elementary German I (4)	
GERM 402	Elementary German II (4)	
GERM 411	Intermediate German (4)	
GERM 412	Intermediate German (4)	
ITAL 401	Elementary Italian (4)	
ITAL 402	Elementary Italian (4)	
ITAL 411	Intermediate Italian (4)	
ITAL 412	Intermediate Italian (4)	
RUSS 401	Elementary Russian (4)	
RUSS 402	Elementary Russian (4)	
RUSS 411	Intermediate Russian (4)	
RUSS 412	Intermediate Russian (4)	
RUSS 413	Russian for Heritage Speakers I (4)	
RUSS 415	Russian for Heritage Speakers II (4)	
SPAN 401	Elementary Spanish I (4)	
SPAN 402	Elementary Spanish II (4)	
SPAN 411	Intermediate Spanish (4)	
SPAN 412	Intermediate Spanish (4)	
SPAN 413	Spanish for Native Speakers I (4)	
SPAN 415	Spanish for Native Speakers II (4)	
Total Units:		**18**

The Language Studies Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- write expository and argumentative papers.
- synthesize ideas and develop conclusions.
- examine the connection between culture and communication.
- engage in conversation and written correspondence in a language other than English.

Career Information

This degree prepares students for immediate employment in language-focused fields by developing practical communication skills and cultural competence. Career paths include healthcare interpreting, emergency and public services, social services, bilingual education support, government agencies, international business, tourism, translation and interpreting, and other community-based professions. Some positions may require additional training or certification.

A.A. in Social Science

The Social Science degree provides an interdisciplinary approach to academic studies. The purpose of the program is for students to gain an understanding of the interconnectedness of various social and behavioral sciences. Students will study about themselves and others as members of a larger society. Topics and discussions to stimulate critical thinking about ways people have acted in response to their societies will allow students to evaluate how societies and social subgroups operate. With support from a counselor, this program can help students planning to transfer to the California State University or the University of California satisfy general education requirements and focus on transferable course work that relates to a specific major and/or individual interest.

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18
Select courses from at least 3 different disciplines.		

Course Code	Course Title	Units
ADMJ 300	Introduction to Administration of Justice (3)	
ADMJ 302	Community Relations: Multicultural Issues (3)	
ADMJ 304	Juvenile Delinquency (3)	
ADMJ 320	Concepts of Criminal Law (3)	
ANTH 310	Cultural Anthropology (3)	
or ANTH 481	Honors Cultural Anthropology (3)	
ANTH 320	Introduction to Archaeology and World Prehistory (3)	
ANTH 321	Ancient Technology (3)	
ANTH 330	Magic, Witchcraft, and Religion (3)	
ANTH 333	American Indians of California (3)	
ANTH 334	Native Peoples of North America (3)	
ANTH 335	Research Methods in Anthropology (3)	
ANTH 336	Anthropology of Sex, Sexuality and Gender (3)	
ANTH 337	The Anthropology of Food (3)	
ANTH 341	Introduction to Linguistics (3)	
ANTH 370	Primatology (3)	
BUS 300	Introduction to Business (3)	
BUS 320	Concepts in Personal Finance (3)	
or ECON 320	Concepts in Personal Finance (3)	
BUS 330	Managing Diversity in the Workplace (3)	
COMM C1004	Interpersonal Communication (3)	
COMM 325	Intercultural Communication (3)	
DEAF 351	Introduction to American Deaf Culture (3)	
DEAF 352	Introduction to American Deaf Education (3)	
DEAF 355	Audism and Inequality of the Deaf (3)	
ECE 312	Child Development (3)	
or PSYC 372	Child Development (3)	
ECE 314	The Child, the Family and the Community (3)	
ECE 325	Positive Guidance Strategies with Young Children (3)	
ECE 330	Infant and Toddler Development (3)	
ECE 430	Culture and Diversity in Early Childhood Education (3)	
ECON C2002	Principles of Macroeconomics (3)	
ECON C2001	Principles of Microeconomics (3)	
ECON 305	Introduction to Economies of Africa (3)	
ENGLT 365	Introduction to Gay, Lesbian, Bisexual and Transgender Literature (3)	
ETHNS 300	Introduction to Ethnic Studies (3)	
ETHNS 320	Introduction to African American Studies (3)	
ETHNS 330	Introduction to Asian American Studies (3)	
ETHNS 350	Introduction to Native American Studies (3)	
ETHNS 360	Introduction to Chicana/o/x Studies (3)	
GEOG 310	Human Geography: Exploring Earth's Cultural Landscapes (3)	
GEOG 320	World Regional Geography (3)	
GEOG 322	Geography of California (3)	
GERON 303	Introduction to Social Gerontology: Aging in Contemporary Society (3)	
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
GERON 306	Health, Wellness, and the Aging Process (3)	
GLST 301	Introduction to Global Studies (3)	
GLST 302	Global Issues (3)	
HCD 390	Identity and Psychosocial Well-Being (3)	
HIST 300	History of Europe and the Mediterranean to 1500 (3)	
or HIST 480	History of Western Civilization - Honors (3)	
HIST 302	History of Europe Since 1500 (3)	
or HIST 481	History of Western Civilization - Honors (3)	
HIST 305	Women in Western Civilization (3)	
HIST 307	History of World Civilizations to 1500 (3)	
HIST 308	History of World Civilizations, 1500 to Present (3)	
HIST C1001	United States History to 1877 (3)	
or HIST C1001H	United States History to 1877 - Honors (3)	
HIST C1002	United States History since 1865 (3)	
or HIST C1002H	United States History since 1865 - Honors (3)	
HIST 318	American Intellectual and Cultural History (3)	
HIST 320	History of the United States: African-American Emphasis (3)	
HIST 321	History of the United States: African-American Emphasis (3)	
HIST 323	History of the United States: The American Indian Experience (3)	
HIST 325	History of Asian/Pacific Americans (3)	
HIST 327	History of the Chicano/Mexican American (3)	
HIST 330	Women in American History (3)	
HIST 332	Women in American History (To 1877) (3)	
HIST 333	Women in American History (1865-Present) (3)	
HIST 340	History of California through 1879 (3)	

Course Code	Course Title	Units
HIST 341	History of California: 1879 to Present (3)	
HIST 353	History of the Islamic World (3)	
HIST 364	Asian Civilization (3)	
HIST 365	Asian Civilization (3)	
HIST 367	History of Russia (3)	
HIST 373	History of Mexico (3)	
HIST 374	History of Latin America to 1830 (3)	
HIST 375	The History of Modern Latin America and Caribbean (3)	
INDIS 351	Italian Life and Culture in Study Abroad (3)	
INDIS 353	Spanish Life and Culture in Study Abroad (3)	
INDIS 355	United Kingdom Life and Culture in Study Abroad (3)	
IS 305	Introduction to Middle East Studies (3)	
IS 310	Peace and Conflict (3)	
IS 312	Current Global Development Issues (3)	
JOUR 310	Mass Media and Society (3)	
JOUR 320	Race and Gender in the Media (3)	
NATR 307	Principles of Sustainability (4)	
NUTRI 310	Cultural Foods of the World (3)	
or NUTRI 481	Honors - Cultural Foods of the World (3)	
PHIL 360	Social/Political Philosophy (3)	
POLS C1000	American Government and Politics (3)	
or POLS C1000H	American Government and Politics - Honors (3)	
POLS 302	Comparative Politics (3)	
POLS 304	Introduction to Government: California (3)	
POLS 310	Introduction to International Relations (3)	
or POLS 480	Introduction to International Relations - Honors (3)	
POLS 320	Introduction to Political Theory (3)	
POLS 330	Constitutional Rights (3)	
POLS 342	Women and Politics from a Global Perspective (3)	
PSYC C1000	Introduction to Psychology (3)	
or PSYC C1000H	Introduction to Psychology - Honors (3)	
PSYC 305	Psychology Applied to Modern Life (3)	
PSYC 320	Social Psychology (3)	
PSYC 335	Research Methods in Psychology (3)	
PSYC 340	Abnormal Behavior (3)	
or PSYC 481	Honors Abnormal Behavior (3)	
PSYC 354	The Psychology of Family Life and Intimate Relationships in a Diverse Society (3)	
PSYC 356	Human Sexuality (3)	
PSYC 361	Psychology of Women in a Multicultural Society (3)	
PSYC 370	Human Development: A Life Span (3)	
PSYC 373	Child Psychology (3)	
PSYC 390	Psychology of Death and Dying (3)	
PSYC 415	Studying in London: Psychological Elements of British Life and Culture (3)	
SJS 300	Introduction to Social Justice Studies (3)	
SJS 310	Introduction to LGBTQ Studies (3)	
SOC 300	Introductory Sociology (3)	
or SOC 480	Introductory Sociology - Honors (3)	
SOC 301	Social Problems (3)	
SOC 302	Introduction to Social Research Methods (3)	
SOC 309	Self and Society (3)	
SOC 318	Introduction to Crime, Deviance, and Social Control (3)	
SOC 321	Race, Ethnicity and Inequality in the United States (3)	
SOC 325	Chicano Culture (3)	
SOC 335	Sociology of Aging (3)	
SOC 342	Gender Relations in American Society (3)	
SOC 350	Sociology of Popular Culture (3)	
SWCD 300	Introduction to Social Work (3)	
SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	
Total Units:		**18**

The Social Science Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply critical thinking skills in evaluating sociological, historical, and psychological phenomena.
- demonstrate an understanding of the theories and methods employed in the social and behavioral sciences.
- evaluate how societies and social groups operate.

- develop a personal interpretation about issues and matters under study.
- identify and explain various forces that interact to shape events and social occurrences.
- define and describe issues and events within an interdisciplinary perspective.

A.A. in Society and the Individual

This degree provides an area of emphasis in the effects of culture, religion, ethnicity, and gender on individuals living in a global society. It is designed for students wishing to work more effectively with others in the workplace. Students who work closely with their counselor can use this area of emphasis to prepare for a major within the Social and Behavioral fields such as Anthropology, Child Development, Ethnic Studies, Psychology, Social Work, Sociology, and Women's, Gender, and Sexuality Studies at a four-year college.

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18
ADMJ 302	Community Relations: Multicultural Issues (3)	
ADMJ 304	Juvenile Delinquency (3)	
ANTH 300	Biological Anthropology (3)	
or ANTH 480	Honors Biological Anthropology (3)	
ANTH 310	Cultural Anthropology (3)	
or ANTH 481	Honors Cultural Anthropology (3)	
ANTH 320	Introduction to Archaeology and World Prehistory (3)	
ANTH 321	Ancient Technology (3)	
ANTH 330	Magic, Witchcraft, and Religion (3)	
ANTH 333	American Indians of California (3)	
ANTH 334	Native Peoples of North America (3)	
ANTH 335	Research Methods in Anthropology (3)	
ANTH 336	Anthropology of Sex, Sexuality and Gender (3)	
ANTH 337	The Anthropology of Food (3)	
ANTH 341	Introduction to Linguistics (3)	
BUS 330	Managing Diversity in the Workplace (3)	
COMM C1004	Interpersonal Communication (3)	
COMM 325	Intercultural Communication (3)	
DEAF 351	Introduction to American Deaf Culture (3)	
DEAF 352	Introduction to American Deaf Education (3)	
DEAF 355	Audism and Inequality of the Deaf (3)	
ECE 312	Child Development (3)	
or PSYC 372	Child Development (3)	
ECE 314	The Child, the Family and the Community (3)	
ECE 325	Positive Guidance Strategies with Young Children (3)	
ECE 330	Infant and Toddler Development (3)	
ECE 404	Children with Special Needs (3)	
ECE 415	Children's Health, Safety and Nutrition (3)	
or NUTRI 320	Children's Health, Safety and Nutrition (3)	
ECE 430	Culture and Diversity in Early Childhood Education (3)	
ETHNS 300	Introduction to Ethnic Studies (3)	
ETHNS 320	Introduction to African American Studies (3)	
ETHNS 330	Introduction to Asian American Studies (3)	
ETHNS 350	Introduction to Native American Studies (3)	
ETHNS 360	Introduction to Chicana/o/x Studies (3)	
GEOG 310	Human Geography: Exploring Earth's Cultural Landscapes (3)	
GEOG 322	Geography of California (3)	
GERON 303	Introduction to Social Gerontology: Aging in Contemporary Society (3)	
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
GERON 306	Health, Wellness, and the Aging Process (3)	
GLST 301	Introduction to Global Studies (3)	
GLST 302	Global Issues (3)	
HCD 390	Identity and Psychosocial Well-Being (3)	
HEED 300	Health Science (3)	
HEED 308	Environmental Health Science (3)	
HIST C1001	United States History to 1877 (3)	
or HIST C1001H	United States History to 1877 - Honors (3)	
HIST C1002	United States History since 1865 (3)	
or HIST C1002H	United States History since 1865 - Honors (3)	
HIST 318	American Intellectual and Cultural History (3)	
HIST 320	History of the United States: African-American Emphasis (3)	
HIST 321	History of the United States: African-American Emphasis (3)	
HIST 323	History of the United States: The American Indian Experience (3)	
HIST 325	History of Asian/Pacific Americans (3)	
HIST 327	History of the Chicano/Mexican American (3)	

Course Code	Course Title	Units
HIST 330	Women in American History (3)	
HIST 332	Women in American History (To 1877) (3)	
HIST 333	Women in American History (1865-Present) (3)	
HIST 340	History of California through 1879 (3)	
HIST 341	History of California: 1879 to Present (3)	
JOUR 310	Mass Media and Society (3)	
JOUR 320	Race and Gender in the Media (3)	
NUTRI 310	Cultural Foods of the World (3)	
or NUTRI 481	Honors - Cultural Foods of the World (3)	
POLS C1000	American Government and Politics (3)	
or POLS C1000H	American Government and Politics - Honors (3)	
POLS 302	Comparative Politics (3)	
POLS 304	Introduction to Government: California (3)	
POLS 330	Constitutional Rights (3)	
POLS 342	Women and Politics from a Global Perspective (3)	
PSYC C1000	Introduction to Psychology (3)	
or PSYC C1000H	Introduction to Psychology - Honors (3)	
PSYC 305	Psychology Applied to Modern Life (3)	
PSYC 310	Biological Psychology (3)	
PSYC 320	Social Psychology (3)	
PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
PSYC 335	Research Methods in Psychology (3)	
PSYC 340	Abnormal Behavior (3)	
or PSYC 481	Honors Abnormal Behavior (3)	
PSYC 354	The Psychology of Family Life and Intimate Relationships in a Diverse Society (3)	
PSYC 356	Human Sexuality (3)	
PSYC 359	Stress Management and Health (3)	
PSYC 361	Psychology of Women in a Multicultural Society (3)	
PSYC 370	Human Development: A Life Span (3)	
PSYC 373	Child Psychology (3)	
PSYC 390	Psychology of Death and Dying (3)	
RLST 301	Introduction to World Religions (3)	
SJS 300	Introduction to Social Justice Studies (3)	
SJS 310	Introduction to LGBTQ Studies (3)	
SOC 300	Introductory Sociology (3)	
or SOC 480	Introductory Sociology - Honors (3)	
SOC 301	Social Problems (3)	
SOC 302	Introduction to Social Research Methods (3)	
SOC 309	Self and Society (3)	
SOC 318	Introduction to Crime, Deviance, and Social Control (3)	
SOC 321	Race, Ethnicity and Inequality in the United States (3)	
SOC 325	Chicano Culture (3)	
SOC 335	Sociology of Aging (3)	
SOC 342	Gender Relations in American Society (3)	
SOC 350	Sociology of Popular Culture (3)	
SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	
SWCD 340	Introduction to Chemical Dependency (3)	
or PSYC 400	Introduction to Chemical Dependency (3)	
SWCD 341	Physiology and Pharmacology: Alcohol & Other Drugs (3)	
or PSYC 401	Physiology and Pharmacology: Alcohol & Other Drugs (3)	
SWCD 342	Alcoholism: Intervention, Treatment & Recovery (3)	
or PSYC 402	Alcoholism: Intervention, Treatment & Recovery (3)	
Total Units:		**18**

The Society and the Individual Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- examine human diversity in relation to psychological and sociological theory.
- identify the consequences of ethnocentrism and gender bias on social interactions.
- analyze the influence of culture, environment, family, religion, and society on an individual's development.
- analyze patterns of social problems which are based on cultural, ethnic, and gender differences in the United States.

Certificate of Achievement

Cal-GETC Certificate

This certificate is designed for students planning to transfer to a California State University (CSU) or University of California (UC) campus. It ensures that the student has met the lower division General Education/Breadth requirements for all CSU and UC campuses.

Certificate Requirements

Course Code	Course Title	Units
A minimum of 34 units from the following:		34
Students must complete a minimum of 34 units used to satisfy the Cal-GETC certification requirements. See the Cal-GETC pattern in the American River College (ARC) catalog or consult with an ARC counselor.		
Total Units:		**34**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate effective expository and persuasive writing skills.
- develop a reasoned solution to a problem.
- explain the values of a culture as expressed through its art or language.
- evaluate the methods of inquiry and evidence used in the behavioral and social sciences.
- evaluate new and accepted ideas about the natural universe using testable methodology.

Interdisciplinary Studies (INDIS) Courses

INDIS 299 Experimental Offering in Interdisciplinary Studies

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

INDIS 351 Italian Life and Culture in Study Abroad

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Enrollment Limitation: The student must complete the pre-enrollment process in the Los Rios Community College District Study Abroad program.

Transferable: CSU

General Education: Local GE L4

This course is designed to allow students to acquire a level of global competence with an emphasis on Italian life and culture while enrolled in the Los Rios Study Abroad program. Global competence is a continuing process of acquiring specific economic, historical, and geo-political knowledge, which supports 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, students 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. Students may find information about the pre-enrollment meetings at the Study Abroad website, located at https://losrios.edu/academics/programs-and-majors/los-rios-study-abroad.

INDIS 353 Spanish Life and Culture in Study Abroad

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Enrollment Limitation: This course is only available to students participating in Study Abroad programs in Spain and is therefore not available to all students during open enrollment. The student must complete the pre-enrollment process in the Los Rios Community College District Study Abroad program.

Transferable: CSU

General Education: Local GE L4

This course is designed to allow students to acquire a level of global competence with an emphasis on Spanish life and culture while enrolled in the Los Rios Study Abroad program. Global competence is a continuing process of acquiring specific economic, historical, and geo-political knowledge, which supports 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. Students may

find information about the pre-enrollment meetings at the Study Abroad website, located at https://losrios.edu/academics/programs-and-majors/los-rios-study-abroad.

INDIS 355 United Kingdom Life and Culture in Study Abroad

Units: 3

Hours: 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 as required by the American Institute for Foreign Studies (AIFS).

Transferable: CSU

General Education: Local GE L4

This course is designed to allow students to acquire a level of global competence with an emphasis on United Kingdom life and culture while enrolled in the Los Rios Study Abroad program. Global competence is a continuing process of acquiring specific economic, historical, and geo-political knowledge, which supports 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. Students may find information about the pre-enrollment meetings at the Study Abroad website, located at https://losrios.edu/academics/programs-and-majors/los-rios-study-abroad.

INDIS 499 Experimental Offering in Interdisciplinary Studies

Units: 0.5 - 4

Hours: 18 hours LEC

Prerequisite: None.

Advisory: CISC 300

Transferable: CSU

This course is designed to familiarize students with the skills required to succeed in an online course. It explores 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 and other advanced features of email programs; using online discussion forums and synchronous chat sessions effectively in order to work collaboratively online; researching on the Internet and how to critically evaluate Internet resources; and time management and study skills related to being an online student. The course is taught in a hybrid format combining in-class sessions with online activities. There are only four class meetings and the rest of the course occurs fully online.

Interior Design

Overview

Are you someone who loves wandering the aisles of home decor stores or spends hours creating the perfect dream home inspiration board? The American River College Interior Design Department offers certificates and an associate degree to help you turn your creative passion into a profitable career. The classes offered allow students to exercise their innovative abilities in design, like IDES 330 Beginning Interior Design Studio. In contrast, other classes hone in the practicalness of functionality, such as IDES 350 Codes and Universal Access for Interior Design. With the course catalog, students have the opportunity to learn about the fundamentals of interior design, business practices, design history, and work on a guided portfolio to help land their dream job.

In addition to residential and commercial interior design, the IDES program at American River College pioneered Design4Life. This program promotes health and longevity in people's homes to ensure that they can safely live in their homes with different abilities and needs. Courses like IDES 355 Residences: Designed 4 Life and IDES 108 Lighting For Better Health advocate for the importance of an intentional and conscious design to increase the quality of life.

American River College's Interior Design Department is mindful of the challenges students may have with commitments outside of school. We offer online classes with various class times on three, six, and eight-week schedules to accommodate the diverse student population. When planning your course schedule, we recommend referring to the catalog to see how a class is offered and if the class alternates being taught in the fall or spring. Presently, we do not offer courses for this program during the summer semester.

Degrees and Certificates Offered

A.A. in Interior Planning and Design

Para Professional Interior Planning and Design Certificate

Green Building and Sustainable Design for Interiors Certificate

Interior Retail Merchandising Certificate

Sacramento Design History Certificate

Universal Design Certificate

Dean: Corinne Arrieta Katzorke

Department Chair: Dyanne Marte

Phone: (916) 484-8570

Email: AskHB-Arts@arc.losrios.edu

Associate Degree

A.A. in Interior Planning and Design

This degree provides a foundation of education and skills in the expanding field of interior design. Topics include space planning, building and Life-Safety codes, and the Americans with Disabilities Act (ADA). Additionally, it covers a variety of subjects ranging from architectural and furniture history to reading construction documents.

Degree Requirements

Course Code	Course Title	Units
IDES 300	Fundamentals of Interior Design	3
IDES 310	History of Interior Architecture and Furnishings I	3
IDES 312	History of Interior Architecture and Furnishings II	3
IDES 322	Materials of Interior Design	3
IDES 324	Interior Design Business Practices	3
IDES 326	Interior Design Sales	3
IDES 330	Beginning Interior Design Studio	3
IDES 332	Portfolio and Presentation in Interior Design	3
IDES 334	Interior Environment and Space Planning	3
IDES 340	Beginning CADD for Interior Design (3)	3
or DESGN 301	Introduction to Computer Aided Drafting and Design (CADD) (3)	
IDES 341	Intermediate CADD for Interior Design (3)	3
or DESGN 320	Three Dimensional Graphics and Design (3)	
IDES 350	Codes and Universal Access for Interior Design	2
IDES 351	Codes and Universal Access Lab	1
A minimum of 3 units from the following:		3
ART 300	Drawing and Composition I (3)	
ART 320	Design: Fundamentals (3)	
ART 323	Design: Color Theory (3)	
ARTH C1100	Survey of Art from Prehistory to the Medieval Era (3)	
ARTH 308	Renaissance Tradition in Art (3)	
ARTH 310	Modern Art (3)	
ARTH 322	Art History of the Non-Western World (3)	
FASHN 320	Textiles (3)	
IDES 110	Estimating and Calculating for Interior Design (3)	
A minimum of 1 unit from the following:		1
WEXP 498	Work Experience in (Subject) (0.5 - 4)	
Total Units:		**40**

The Interior Planning and Design Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- incorporate the appropriate finishes and materials for commercial and residential interiors.
- examine building types and occupancy classifications.
- create construction and presentation drawings that meet California building codes.
- assess client's needs and plans with the Americans with Disabilities Act (ADA), Life-Safety Codes and Universal/ Barrier-Free Design.
- analyze interiors to reflect the needs of the end user.
- design spaces that are aesthetically pleasing and incorporate sound design principles.

Career Information

The field of interior design offers a variety of career options, including residential design by itself, or with a specialty such as Universal Design, Green/Sustainable, smart-home, home office, and home theater design. It also offers commercial design, which can include ADA compliance, hospitality (restaurant, hotel, cruise ship) design, set design, and contract space planning. Additional career opportunities are available in product design, retailer, buyer/purchaser, manufacturers' representative, and facilities management.

Certificate of Achievement

Para Professional Interior Planning and Design Certificate

This certificate provides a foundation of education and skills in the expanding field of interior design. It focuses on the fundamentals of both residential and commercial design. A variety of topics taught for this certificate include space

planning, building and Life-Safety codes, the Americans with Disabilities Act (ADA), and architectural and furniture history. This certificate includes an internship within the interior design industry.

Certificate Requirements

Course Code	Course Title	Units
IDES 110	Estimating and Calculating for Interior Design	3
IDES 300	Fundamentals of Interior Design	3
IDES 310	History of Interior Architecture and Furnishings I	3
IDES 312	History of Interior Architecture and Furnishings II	3
IDES 322	Materials of Interior Design	3
IDES 324	Interior Design Business Practices	3
IDES 330	Beginning Interior Design Studio	3
IDES 332	Portfolio and Presentation in Interior Design	3
IDES 334	Interior Environment and Space Planning	3
IDES 340	Beginning CADD for Interior Design (3)	3
or DESGN 301	Introduction to Computer Aided Drafting and Design (CADD) (3)	
IDES 341	Intermediate CADD for Interior Design (3)	3
or DESGN 320	Three Dimensional Graphics and Design (3)	
IDES 350	Codes and Universal Access for Interior Design	2
IDES 351	Codes and Universal Access Lab	1
WEXP 498	Work Experience in (Subject)	0.5 -4
A minimum of 3 units from the following:		3
ART 300	Drawing and Composition I (3)	
ART 320	Design: Fundamentals (3)	
ART 323	Design: Color Theory (3)	
ARTH C1100	Survey of Art from Prehistory to the Medieval Era (3)	
ARTH 308	Renaissance Tradition in Art (3)	
ARTH 310	Modern Art (3)	
ARTH 322	Art History of the Non-Western World (3)	
FASHN 320	Textiles (3)	
IDES 326	Interior Design Sales (3)	
Total Units:		**39.5 - 43**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- categorize building types and occupancy classifications.
- create construction and presentation drawings that meet California building codes.
- appraise the client's needs and plans with the Americans with Disabilities Act (ADA), Life-Safety codes and Universal/ Barrier-Free Design.
- distinguish historical periods and styles of architecture and interior design.
- identify sales proposals.
- select textiles for the appropriate end use.

Career Information

This certificate offers a variety of career options, including residential design by itself or with a specialty of home office and home theater design. It also offers commercial design opportunities, which include space planning, hospitality (restaurant, hotel, cruise ship) design, set design, and historical and adaptive re-use design. Additional career opportunities are available as product designers, retailers, buyers, manufacturers' representatives, and facilities managers.

Certificates

Green Building and Sustainable Design for Interiors Certificate

This certificate provides students with expertise in the requirements for designing green and sustainable interiors.

Certificate Requirements

Course Code	Course Title	Units
IDES 300	Fundamentals of Interior Design	3
IDES 302	Introduction to Green Building and Sustainable Design in Interiors	3
IDES 381	Interior Lighting and Electrical Components	3
Total Units:		**9**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe the history and development of the green movement as it applies to interior design
- choose appropriate materials and finishes to achieve a green and sustainable interior
- identify the skills that are required to apply for certification as a Leadership in Energy and Environmental Design (LEED) Accredited Professional and describe the process for receiving LEED certification for projects.

- assess the role of the interior designer as part of a team of professionals involved in creating green buildings and sustainable design

Career Information

This certificate offers additional opportunities for an interior designer specializing in green design. It helps students be more employable by demonstrating a more focused skill set.

Interior Retail Merchandising Certificate

This certificate provides a foundation of education and skills in the expanding field of interior design. Topics include the materials of interior design, architectural (global and regional) and furniture history, business practices, and event planning.

Certificate Requirements

Course Code	Course Title	Units
IDES 300	Fundamentals of Interior Design	3
IDES 310	History of Interior Architecture and Furnishings I	3
IDES 322	Materials of Interior Design	3
IDES 324	Interior Design Business Practices	3
IDES 330	Beginning Interior Design Studio	3
Total Units:		**15**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- select the appropriate finishes and materials for commercial and residential interiors.
- analyze interiors that reflect the needs of the end user.
- design spaces that are aesthetically pleasing and that incorporate sound design principles.

Career Information

This certificate offers a variety of career options in residential design. Additional career opportunities are available as product designers, retailers, buyers, manufacturers' representatives, and Sacramento architectural and interiors historians.

Sacramento Design History Certificate

This program covers Sacramento’s architectural heritage of more than 150 years. The students will compare and contrast various regional styles from Old Town to 21st century modern. The styles of Julia Morgan, Frank Lloyd Wright, the Greene Brothers are analyzed.

Certificate Requirements

Course Code	Course Title	Units
IDES 130	Sacramento Design History - Architectural Gems	0.5
IDES 131	Sacramento Design History - Old Sacramento	0.5
IDES 132	Sacramento Design History - Victorian	0.5
IDES 133	Sacramento Design History - Bungalows	0.5
IDES 134	Sacramento Design History - Fabulous Forties	0.5
IDES 135	Sacramento Design History - Mid-Century Modern	0.5
IDES 136	Sacramento Design History - Modern and Contemporary	0.5
IDES 312	History of Interior Architecture and Furnishings II	3
Total Units:		**6.5**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- catalogue various styles and periods of architecture in Sacramento.
- research some of Sacramento's vast periods and styles of architecture.
- locate some of Sacramento's architectural gems.
- distinguish specific architectural details on Sacramento structures.

Career Information

1. Historical preservationist. 2. Architectural docent. 3. Tour guide.

Universal Design Certificate

This certificate prepares students to work in the field of interior design with an emphasis on Universal Design. Multi-generational or universal design addresses the needs and abilities of people of all ages. Universal Design gives careful consideration to space planning, accessibility, security, and privacy issues, to create an environment that promotes independent living for every member of the household.

Certificate Requirements

Course Code	Course Title	Units
IDES 108	Lighting For Better Health	0.5
IDES 322	Materials of Interior Design	3
IDES 330	Beginning Interior Design Studio	3
IDES 334	Interior Environment and Space Planning	3
IDES 350	Codes and Universal Access for Interior Design	2
IDES 351	Codes and Universal Access Lab	1

Course Code	Course Title	Units
Total Units:		**12.5**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess the client's interior space planning needs.
- design residences that will successfully meet the needs of most people.
- analyze how Universal Design is used in a floor plan.

Career Information

Students who have completed this certificate may work in full residential design. They may also specialize in residential kitchen and/or bath design.

Interior Design (IDES) Courses

IDES 101 Interior Design Careers

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

This course explores a variety of career options in the multi-faceted field of interior design. Virtual and/or in-person field trips may be required.

IDES 102 Working with Clients

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course covers methods for effectively working with clients. Virtual and/or in-person field trips may be required.

IDES 103 Furniture Markets

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course provides an opportunity to learn about seasonal markets and view upcoming interior design offerings. Trends, markets, budgets, and products are discussed. Virtual and/or in-person field trips may be required.

IDES 104 Home Staging

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course is a basic introduction to the process of staging homes for sale. Topics include model homes and resale. Virtual and/or in-person field trips may be required.

IDES 105 Color and Interior Design

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course is a basic introduction to color and how it relates to interior design. Topics include basic dynamics of color, its principles, fundamentals, psychology, and applications. Virtual and/or in-person field trips may be required.

IDES 108 Lighting For Better Health

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course introduces better lighting design that could improve your health. New research shows that properly designed lighting can enhance our human biology and overall good health. Virtual and/or in-person field trips may be required.

IDES 109 Interior Design Specifications

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This is a basic introduction to the process of specifying interior fixtures, furniture, and equipment. Topics include selection, documentation, and industry standards for specification writing. Virtual and/or in-person field trips may be required.

IDES 110 Estimating and Calculating for Interior Design

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

This course includes techniques for accurately calculating yardage and materials of interior products for residential and commercial installations. Field trips may be required.

IDES 120 Seasonal Decorating

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course introduces the basics for changing decor according to various seasons and holidays. Resourcing for props, elements, and accessories are included. This course covers both commercial and residential applications. Virtual and/or in-person field trips may be required.

IDES 121 Event Planning for Interior Designers

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

This course is a basic introduction to event planning and how it relates to interior design. Topics include fund raisers, corporate events, and private events such as weddings and parties. Virtual and/or in-person field trips may be required. Pass/No Pass only.

IDES 130 Sacramento Design History - Architectural Gems

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course explores the rich architectural and interior design history in the Sacramento area. Virtual and/or in-person field trips may be required.
Pass/No Pass only.

IDES 131 Sacramento Design History - Old Sacramento

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course explores the rich architectural and interior design history of Old Sacramento. Virtual and/or in-person field trips may be required.

IDES 132 Sacramento Design History - Victorian

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course explores the styles of Victorian architectural and interior design history in the Sacramento area. Virtual and/or in-person field trips may be required. Pass/No Pass only.

IDES 133 Sacramento Design History - Bungalows

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course explores the architectural and interior design history of bungalows in the Sacramento area. Virtual and/or in-person field trips may be required. Pass/No Pass only.

IDES 134 Sacramento Design History - Fabulous Forties

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course explores the architectural and interior design history of the Fabulous Forties area in Sacramento. Virtual and/or in-person field trips are required. Pass/No Pass only.

IDES 135 Sacramento Design History - Mid-Century Modern

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course explores mid-century modern architectural and interior design history in the Sacramento area. Virtual and/or in-person field trips are required. Pass/No Pass only.

IDES 136 Sacramento Design History - Modern and Contemporary

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course explores the Modern and contemporary architectural and interior design history in the Sacramento area. Virtual and/or in-person field trips are required. Pass/No Pass only.

IDES 300 Fundamentals of Interior Design

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This introductory survey course addresses various aspects of the interior design industry and profession. It includes the study and application of design principles and elements; influences of historical, cultural, and functional design factors; the selection and arrangement of interior furnishings and materials; and an overview of career options in interior design. Sustainability impact is emphasized throughout the content. Virtual and/or in-person field trips may be required.

IDES 302 Introduction to Green Building and Sustainable Design in Interiors

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course introduces the basic principles of green building and sustainable design (GBSD) and focuses on applications in the practice of commercial or residential interior space planning and design. It includes a historic perspective and the appropriate application of these principles in the profession and also introduces the requirements for Leadership in Energy and Environmental Design (LEED) certification. Virtual and/or in-person field trips may be required.

IDES 310 History of Interior Architecture and Furnishings I

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course covers global historical relationships between the decorative arts, period furniture, and interior architecture from antiquity through the 1800s. Emphasis is on style development as it relates to socio-economic and political factors of the times, as well as identification of specific furniture styles and architectural features. Field trips may be required.

IDES 312 History of Interior Architecture and Furnishings II

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course covers the historical relationship between the decorative arts, period furniture, and interior architecture from the American Colonial periods through Modern and Contemporary. Emphasis is on style development as it relates to socio-economic and political factors of the times, as well as identification of specific furniture styles and architectural features. Asian, African, Mid-Eastern, and other global styles are also included. Virtual and/or in-person field trips may be required.

IDES 322 Materials of Interior Design

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course covers the industry, technology, products, and specification issues of interior finish materials. Textiles, floor coverings, paint and wall coverings, window treatments, furnishings and surface materials, and lighting are included. Virtual and/or in-person field trips may be required.

IDES 324 Interior Design Business Practices

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers the business and practical aspects of interior design. Topics include ethical practices, methods of compensation, establishing clients' budgets, estimating costs, purchasing, billing, marketing, and sales. In-person or virtual field trips may be required.

IDES 326 Interior Design Sales

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers various aspects of selling proposed residential and commercial design projects. Included are personal presentation, selling techniques, making the sale, closing the deal, job completion, and follow up. Field trips may be required.

IDES 330 Beginning Interior Design Studio

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers basic construction, layouts, products, and materials. Topics include floor plans, structural elements, and interior space planning. Presentation methods are explored. Virtual and/or in-person field trips may be required.

IDES 332 Portfolio and Presentation in Interior Design

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: IDES 330 with a grade of "C" or better

Transferable: CSU

This course covers procedures for developing finished presentations in interior design. It includes methods of visually communicating with clients. It also covers both traditional and technology-based portfolio preparation. Virtual or in-person field trips may be required.

IDES 334 Interior Environment and Space Planning

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: IDES 330 with a grade of "C" or better

Corequisite: IDES 350

Transferable: CSU

This course covers the analysis and application of design concepts and space planning techniques. It includes resources necessary to creatively solve problems relative to the function and quality of human environments. Topics include the integration of barrier-free design, the Americans with Disabilities Act (ADA), resource management, and environmental psychology design. Field trips may be required.

IDES 340 Beginning CADD for Interior Design

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: IDES 330 with a grade of "C" or better

Transferable: CSU

This course employs beginning computer-aided drafting and design (CADD) for interior design projects. It also emphasizes the creation of floor plans, space planning, elevations, and perspectives. Virtual and/or in-person field trips may be required.

IDES 341 Intermediate CADD for Interior Design

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: IDES 340 with a grade of "C" or better

Advisory: IDES 334

Transferable: CSU

This course is a continuation of the computer-aided drafting and design (CADD) skills developed in IDES 340, utilizing a different CADD program. It also includes placing floor plans into view ports, adding attributes, and the creation of customized tool bars. Field trips are required.

IDES 350 Codes and Universal Access for Interior Design

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course explores California building codes and standards, federal regulations concerning life-safety issues, and barrier-free access relative to residential and contract design. The Americans with Disabilities Act (ADA) and Universal Design are detailed. Attention is given to the interior designer's liability for the public's health, safety, and welfare.

IDES 351 Codes and Universal Access Lab

Units: 1

Hours: 54 hours LAB

Prerequisite: IDES 330 with a grade of "C" or better

Corequisite: IDES 350

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course applies the content and skills from IDES 350 to various design scenarios requiring Universal Design, Barrier-Free design and ADA (Americans with Disabilities Act) compliance. Projects are drafted following prescribed criteria.

IDES 381 Interior Lighting and Electrical Components

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course introduces green and sustainable lighting design in both commercial and residential interiors. Topics include Leadership in Energy and Environmental Design (LEED) certification, photometrics, light sources, and effective lighting control. Virtual and/or in-person field trips may be required.

IDES 412 Specifications for Interior Design

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course introduces the process of specifying interior fixtures, furniture, and equipment. Topics include selection, documentation, and industry standards for specification writing. Field trips may be required.

IDES 494 Topics in Interior Design

Units: 2 - 4

Hours: 36 - 72 hours LEC

Prerequisite: None.

Advisory: CISC 300

Transferable: CSU

This course is designed to provide an opportunity to study topics in Interior Design not included in current course offerings. Examples include kitchen & bath design; barrier-free design; in depth period style design. Virtual and/or in-person field trips are required.

IDES 495 Independent Studies in Interior Design

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

IDES 498 Work Experience in Interior Design

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Interior Design Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of interior design. 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 Title 5 required forms which document the student's progress and hours spent at an approved worksite, and developing workplace skills and competencies.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

IDES 499 Experimental Offering in Interior Design

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Journalism

Overview

American River College provides a strong introduction to both general studies and a journalism or mass communication major. You can begin with a course in news writing and reporting, and an introduction to the mass media. Both these courses are accepted by the California State University campuses which offer a bachelor's degree in journalism.

The campus newspaper, The Current offers valuable experience in writing, editing, photography, design and desktop publishing. Your portfolio can help you earn scholarships and internships--powerful assets to starting a career.

ARC also offers an associate in arts degree in journalism. This program is designed to prepare students for entry-level work in community journalism and for successful transfer to a university.

Degrees Offered

A.A.-T. in Journalism and Mass Communications

A.A. in Journalism and Mass Communication

Dean: Carina Hoffpauir

Department Chair: Rachel Leibrock

Phone: (916) 484-8101

Email: askhb-LAC@arc.losrios.edu

Associate Degrees for Transfer

A.A.-T. in Journalism and Mass Communications

The Associate in Arts in Journalism for Transfer (AA-T) provides students with a major that fulfills the general requirements of a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Journalism, Mass Communications, Public Relations, or Advertising at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, §66746):
• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

All ADTs also require that students must earn a “C” or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		

Course Code	Course Title	Units
JOUR 300	Newswriting and Reporting	3
JOUR 310	Mass Media and Society	3
JOUR 410	College Media Production I	3
List A:		
A minimum of 3 units from the following:		3
JOUR 301	Advanced Newswriting and Reporting (3)	
JOUR 351	Public Relations Writing and Media Techniques (3)	
JOUR 360	Photojournalism (3)	
JOUR 361	Multimedia Journalism (3)	
JOUR 411	College Media Production II (3)	
List B:		
A minimum of 6 units from the following:		6
Any courses from List A, excluding JOUR 411, not already used or		
JOUR 320	Race and Gender in the Media (3)	
JOUR 350	Writing for Broadcasting/Podcasting (3)	
ARTPH 300	Basic Film and Darkroom Photography (3)	
ARTNM 332	Digital Video (3)	
CISA 330	Desktop Publishing (2)	
and CISA 331	Intermediate Desktop Publishing (2)	
COMM 302	Persuasive Speech (3)	
COMM 311	Argumentation and Debate (3)	
COMM C1004	Interpersonal Communication (3)	
COMM 361	The Communication Experience (3)	
ECON C2002	Principles of Macroeconomics (3)	
or ECON C2001	Principles of Microeconomics (3)	
ENGL C1001	Critical Thinking and Writing (3)	
or ENGL C1001H	Critical Thinking and Writing - Honors (3)	
PHIL 320	Logic and Critical Reasoning (3)	
or PHIL 324	Symbolic Logic (3)	
or MATH 320	Symbolic Logic (3)	
POLS C1000	American Government and Politics (3)	
or POLS C1000H	American Government and Politics - Honors (3)	
POLS 302	Comparative Politics (3)	
STAT C1000	Introduction to Statistics (4)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
or PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
or ECON 310	Statistics for Business and Economics (3)	
Total Units:		**18**

The Associate in Arts in Journalism and Mass Communications 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze content of newspapers, magazines, and online media.
- demonstrate an understanding of basic news, feature writing, and reporting in print and online media.
- critique his or her own journalistic work and the work of others.
- apply knowledge of grammar and AP style to create mass media products that conform to journalistic conventions.
- produce news and feature articles and/or news and feature photographs for publication in a newspaper or online publication.
- apply principles of audience and journalistic ethics to writing and photography, especially as the student's journalistic work relates to gender, ethnicities, and culture.
- demonstrate understanding of the fundamentals of mass media theories, concepts, and practices as they relate to gender, ethnicity, and cultural constructs.

Career Information

The Journalism AA-T degree is designed to facilitate students' successful transfer to four-year programs. From there, students are prepared for a variety of careers in print, broadcast, and online news media.

Associate Degrees

A.A. in Journalism and Mass Communication

This program offers comprehensive training for careers in journalism and communications. Students learn how to create journalistic content for a variety of media platforms, including print, broadcast and online. The program covers news writing and reporting, public relations writing and techniques, photojournalism, and multimedia journalism. It also offers instruction in design and production for both print and online media products.

Degree Requirements

Course Code	Course Title	Units
JOUR 300	Newswriting and Reporting	3
JOUR 310	Mass Media and Society	3
JOUR 320	Race and Gender in the Media	3
JOUR 351	Public Relations Writing and Media Techniques	3
JOUR 361	Multimedia Journalism	3
JOUR 404	Editing and Production	3
JOUR 410	College Media Production I	3
JOUR 411	College Media Production II	3
JOUR 412	College Media Production III	3
A minimum of 2 units from the following:		2
JOUR 420	College Media Production Lab I (0.5 - 3)	
JOUR 421	College Media Production Lab II (0.5 - 3)	
Total Units:		**29**

The Journalism and Mass Communication Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- write and edit news, features, editorials, and press releases that adhere to professional journalistic standards for a variety of outlets.
- conduct research and evaluate information using appropriate methods.
- analyze and evaluate media materials for credibility, fairness, accuracy, appropriate style and grammatical correctness.
- apply journalism ethics and law appropriate to professional practice.
- complete journalistic assignments on deadline.
- create multimedia to accompany text news and feature stories in a variety of formats.
- design, develop and lay out pages for different types of publications using a variety of software programs and applying visual design principles.
- identify and explain the processes, elements, history, theory, and effects of journalism and modern mass media in society.

Career Information

This program is designed to train students for entry-level positions as reporters, writers, editors, producers, photographers, designers, copy editors, and fact checkers for newspapers, magazines, broadcast outlets, websites and other media platforms. It also trains them for entry-level communications/public relations positions that include writing, editing, photography, and/or page layout and design duties. Some career options may require more than two years of college study. This program prepares journalism/mass communications students who plan to transfer to four-year institutions.

Journalism (JOUR) Courses

JOUR 299 Experimental Offering in Journalism

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

JOUR 300 Newswriting and Reporting

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

C-ID: C-ID JOUR 110

This course covers evaluating, gathering, and writing news in accepted journalistic style for different types of media. Topics include personal interviews, along with research, fact-checking and coverage of speeches, meetings, and other events. In addition, the role of the reporter and the legal and ethical issues related to reporting are examined.

JOUR 301 Advanced Newswriting and Reporting

Units: 3

Hours: 54 hours LEC

Prerequisite: JOUR 300 with a grade of "C" or better

Transferable: CSU

C-ID: C-ID JOUR 210

This course covers the development of advanced skills of reporting, interviewing, writing, and editing in the range of work handled by a general assignment or beat reporter. It emphasizes in-depth research, critical analysis, and story format. It also introduces editing and advanced feature and editorial writing.

JOUR 310 Mass Media and Society

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID JOUR 100

The course is a survey of the mass media. It covers the history, philosophy, structure, and trends of mass media, as well as the theories that help to explain its effects on social institutions. It includes an exploration of media literacy, economics, technology, law, ethics, and social issues, including cultural, gender and ethnic diversity.

JOUR 320 Race and Gender in the Media

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course examines the roles of gender, ethnicity, race and social class as represented and documented in the mass media. These issues are analyzed within the context of media content, development, policy, and ownership, including stereotypes, equity and diversity, representation, and the role of alternative and community media. Critical thinking is emphasized through the review of mass media, focusing on the contributions of diverse groups to mass media and mass communication as an agent, gatekeeper and documenter of social change. Critical thinking will be emphasized in this course.

JOUR 340 Writing for Publication

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course introduces writing non-fiction for publication. Emphasis is on analyzing online and print magazines; finding ideas; writing a query letter; developing a saleable magazine idea and article; researching and interviewing; as well as organizing, writing and marketing an article. Field trips may be required.

JOUR 350 Writing for Broadcasting/ Podcasting

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course introduces the theory and technique of writing for the broadcast media. It includes reporting for radio and television news, writing and storyboarding commercials and public service programming, and an introduction to production techniques. It is recommended for students as preparation for work in broadcasting, instructional media, and related fields.

JOUR 351 Public Relations Writing and Media Techniques

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

C-ID: C-ID JOUR 150

This course is a study of public relations (PR), including planning PR campaigns, preparing client messages for newspapers, magazines, radio, broadcast and online outlets, and working with reporters to position stories. It examines public relations techniques in business, education, entertainment, social service, and other fields. It also covers crisis PR.

JOUR 360 Photojournalism

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU

C-ID: C-ID JOUR 160

This course is an introduction to the theory and technique of telling stories with pictures. The role of the photojournalist in the media, pertinent ethical and legal issues, and professional standards are emphasized. Topics include digital still camera operation, composition and lighting, digital image processing, news judgment, and accuracy. Also covered are environmental portraits, photo stories, and feature, sports, and breaking news photography.

JOUR 361 Multimedia Journalism

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: JOUR 360 with a grade of "C" or better

Transferable: CSU

C-ID: C-ID JOUR 120

This course is an introduction to the theory and technique of combining still images, audio, and video to create multimedia photojournalism content for distribution via broadcast media, social media and the internet. The course introduces basic creative concepts and technical elements of capturing and editing video, audio, and still images to create visual media projects. Students will explore the creative and technical production possibilities of merging visual media and the various software used to edit this content. Students will receive hands-on experience with one or more of the following: smartphone cameras, mirrorless cameras, and HDSLR camera video capture techniques and accessories used in video and audio production. Students will complete a final visual media project.

JOUR 404 Editing and Production

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: JOUR 300

Transferable: CSU

This course provides instruction and practice in editing and design, including page makeup, copy editing, photo editing, legal/ethical issues and production methods for newspapers, magazines, and other publications. It also includes preparing, planning, and organizing publications.

JOUR 410 College Media Production I

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: JOUR 300 with a grade of "C" or better

Transferable: CSU

C-ID: C-ID JOUR 130

This course focuses on instruction in writing and producing student news media, primarily the publication, The Current, a journalistic product for distribution to a college-wide audience. Topics will include: researching, reporting, and writing articles; taking photographs or managing artwork and participating in editing, caption writing, and layouts; editing articles, writing headlines, and planning packages in conjunction with editors for publication. Ethical and legal aspects of communication are also covered. This course prepares students for transfer work in journalism or entry-level jobs in the field. This course is required for the A.A. degree in journalism and is part of the A.A.-T Journalism degree. JOUR 420 is the optional lab component for this course.

JOUR 411 College Media Production II

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: JOUR 410 with a grade of "C" or better

Transferable: CSU

C-ID: C-ID JOUR 131

During this second-semester course, which builds on experience learned in JOUR 410, students are instructed on writing and producing student news media, primarily the publication, The Current, a journalistic product for distribution to a college-wide audience. It focuses on intermediate writing and production skills in the following areas: researching, reporting, and writing, taking photographs or managing artwork, and participating in editing, caption writing, and layouts; editing articles, writing headlines, and planning packages in conjunction with editors for publication.

In this second-semester course, students may serve in leadership roles, by learning to participate in editorial meetings in which issues are planned; research, assign, and edit assignments of reporters and photographers for publication;

Ethical and legal aspects of communication are also covered. This course prepares students for transfer work in journalism or entry-level jobs in the field. This course is required for the A.A. degree in journalism and is part of the A.A.-T Journalism degree. JOUR 421 is the optional lab component for this course.

JOUR 412 College Media Production III

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: JOUR 411 with a grade of "C" or better

Transferable: CSU

This third-semester course builds on the experience gained in JOUR 411. It focuses on advanced intermediate writing and production skills, using the school newspaper The Current, as a practical laboratory. The course provides the opportunity to work in at least three of the following areas: researching, writing, and editing articles for the publications; taking photographs and/or managing artwork and creating graphic illustrations; developing multimedia stories, designing pages or posting to the website and social media. Students will learn to conduct editorial meetings in which issues are planned; research, assign, and edit assignments from reporters and photographers for publication; and manage production. Ethical and legal aspects of communication are also covered.

JOUR 413 College Media Production IV

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: JOUR 412 with a grade of "C" or better

Transferable: CSU

In this course, which builds on the experience gained in JOUR 412, instruction is provided in leadership for students who function as editors-in-chief and managing editors using The American River Current as a practical laboratory. Students will plan publication issues and manage section editors, reporters, graphic artists and/or photographers on staff. Students will lead staff meetings in which they plan the vision and content of issues; research and suggest story ideas to section editors; manage section editors and staff; and manage the production of every aspect of each issue of the publication. Ethical and legal aspects of communication and media are also covered for students who serve in top leadership roles.

JOUR 420 College Media Production Lab I

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Corequisite: JOUR 404 or 410

Transferable: CSU

This lab course provides inexperienced journalism students with instruction in writing, editing, photography, multimedia, design, and computer-based publication. This includes one-on-one and small-group instruction in publication software, such as Adobe Creative Suite programs, and Web content management systems.

JOUR 421 College Media Production Lab II

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: JOUR 420 with a grade of "C" or better

Corequisite: JOUR 404 or 411

Transferable: CSU

This lab course provides experienced journalism students with instruction in writing, editing, photography, artwork, design, and computer-based publication, as well as instruction in staff management and leadership. This includes advanced lessons in publication software, such as Adobe Creative Suite programs, and Web content management systems.

JOUR 495 Independent Studies in Journalism

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in journalism, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in journalism and secure approval. Only one independent study for each catalog course will be allowed.

JOUR 499 Experimental Offering in Journalism

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Kinesiology and Athletics

Overview

The ARC Kinesiology and Athletics program offers a wide variety of courses that improve physical fitness, sport skills, and dance performance abilities. All activity classes are open to both men and women unless noted.

Students may enroll in more than one physical education class at the same time. They may not enroll in more than two sections of the activity during the same semester. DANCE, FITNS, PACT, and TMACT classes may be taken one time for credit. SPORT classes may be taken four times for credit. The prefixes “ADAPT, DANCE, FITNS, PACT, TMACT, and SPORT” refer to courses used to satisfy the one-unit physical education graduation requirement.

Courses which are designated with a KINES prefix are theory-oriented rather than activity-oriented and DO NOT satisfy the physical education activity requirement.

Degrees Offered

A.A.-T. in Kinesiology

A.S. in Physical Education

A.S. in Sports Medicine

Interim Dean: Heather Moody

Department Chair: Eric Black
Mark Giorgi

Phone: (916) 484-8201

Email: askhb-healthed@arc.losrios.edu

Associate Degrees for Transfer

A.A.-T. in Kinesiology

The Associate in Arts in Kinesiology for Transfer (AA-T) provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Kinesiology at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, Â§66746):
â€¢ 60 semester or 90 quarter CSU-transferable units
â€¢ the California General Education Transfer Curriculum (Cal-GETC) pattern
â€¢ a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district
â€¢ obtain a minimum grade point average (GPA) of 2.0

All ADTs also require that students must earn a â€œCâ€ or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
BIOL 430	Anatomy and Physiology	5
BIOL 431	Anatomy and Physiology	5
KINES 300	Introduction to Kinesiology	3
List A:		
A minimum of 6 units from the following:		6
CHEM 305	Introduction to Chemistry (5)	
or CHEM 309	Integrated General, Organic, and Biological Chemistry (5)	
or CHEM 400	General Chemistry I (5)	
PHYS 350	General Physics (4)	
or PHYS 410	Mechanics of Solids and Fluids (5)	
PSYC C1000	Introduction to Psychology (3)	
or PSYC C1000H	Introduction to Psychology - Honors (3)	
or SOC 300	Introductory Sociology (3)	
or SOC 480	Introductory Sociology - Honors (3)	
STAT C1000	Introduction to Statistics (4)	
or ECON 310	Statistics for Business and Economics (3)	
or PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
Movement-Based Courses:		
A minimum of 3 units from the following:		3
Select three courses, each from a different category listed below.		
Dance:		
DANCE 300	Diverse Cultures in Dance (1)	
DANCE 301	Belly Dancing (1)	
DANCE 302	African Dance (1)	
DANCE 304	Polynesian Dance I (1)	
DANCE 305	Hawaiian Dance I (1)	
DANCE 306	Polynesian Dance II (1)	
DANCE 307	Hawaiian Dance II (1)	
DANCE 310	Jazz Dance I (1)	

Course Code	Course Title	Units
DANCE 312	Jazz Dance II (1)	
DANCE 320	Ballet I (1)	
DANCE 321	Ballet II (1)	
DANCE 330	Modern Dance I (1)	
DANCE 332	Modern Dance II (1)	
DANCE 340	Ballroom Dance (1)	
DANCE 341	Ballroom Dance II (1)	
DANCE 342	Ballroom Dance III: Club Dancing (1)	
DANCE 343	Ballroom Dance IV: Latin (1)	
DANCE 344	Ballroom Dance V: Swing (1)	
DANCE 345	Ballroom Dance VI: Tango (1)	
DANCE 348	Ballroom Challenge: Competition and Performance (1)	
DANCE 351	Hip Hop I (1)	
DANCE 352	Hip Hop II (1)	
DANCE 360	Tap Dance I (1)	
DANCE 361	Tap Dance II (1)	
DANCE 377	Musical Theatre Dance I (2)	
DANCE 390	Contemporary Dance I (1)	
Individual Sports:		
PACT 300	Archery I (1)	
PACT 310	Badminton I (1)	
PACT 311	Badminton II (1)	
PACT 350	Golf I (1)	
PACT 351	Golf II (1)	
PACT 390	Tennis I (1)	
PACT 391	Tennis II (1)	
PACT 393	Tennis III (1)	
Fitness:		
FITNS 302	Latin Aerobics (1)	
FITNS 303	Dance Aerobics (1)	
FITNS 304	Cardio Circuit (1)	
FITNS 306	Aerobics: Cardio-Kickboxing (1)	
FITNS 307	Aerobic Mix (1)	
FITNS 308	Step Aerobics (1)	
FITNS 321	Core Conditioning (1)	
FITNS 324	Mat Pilates (1)	
FITNS 325	Pilates (1)	
FITNS 326	Mat Pilates II (1)	
FITNS 331	Boot Camp I (1)	
FITNS 343	Spin Bike (1)	
FITNS 344	Dynamic Fitness Training I (1)	
FITNS 345	Dynamic Fitness Training II (1)	
FITNS 380	Circuit Weight Training (1)	
FITNS 381	Weight Training (0.5 - 1)	
FITNS 385	Weight Training for Competition (0.5 - 1)	
FITNS 392	Yoga (1)	
FITNS 393	Yoga II (1)	
FITNS 395	Stretch (1)	
FITNS 400	Body Fitness (Walking or Jogging) (1)	
ADAPT 324	Heart Healthy (1)	
ADAPT 330	Adapted Weight Training and Fitness (1)	
ADAPT 335	Adapted Yoga (1)	
ADAPT 337	Adapted Walk and Wheel (1)	
ADAPT 338	Adapted Aerobic Activity (1)	
Aquatics:		
FITNS 310	Aquatic Fitness I (1)	
FITNS 314	Aquatic Fitness III- Deep Water Jogging (1)	
FITNS 316	Lap Swimming (1)	
FITNS 440	Swimming I (1)	
FITNS 441	Swimming II (1)	
FITNS 442	Swimming III (1)	
FITNS 443	Swimming IV (1)	
ADAPT 332	Adapted Aquatics (1)	
Combatives:		
FITNS 414	Tai Chi (1)	
FITNS 450	Personal Safety (1)	
Team Sports:		
TMACT 300	Soccer, Indoor (1)	
TMACT 301	Indoor Soccer II (1)	
TMACT 302	Soccer - Outdoor (1)	
TMACT 303	Outdoor Soccer II (1)	
TMACT 304	Outdoor Soccer III (1)	
TMACT 320	Basketball (1)	
TMACT 330	Volleyball (1)	
TMACT 331	Volleyball II (1)	
TMACT 333	Volleyball III (1)	
TMACT 340	Football (1)	
ADAPT 310	Adapted Lifetime Sports (1)	
ADAPT 314	Wheelchair Sports and Games (1)	
Total Units:		**22**

The Associate in Arts in Kinesiology 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- recount the historical evolution of physical education/ kinesiology.
- evaluate current theories, philosophies, and trends in the field of kinesiology.
- identify key aspects of personal fitness as it relates to physical fitness programs.
- construct a philosophy of kinesiology that includes goals for lifetime fitness.
- discuss how sociological, historical, and philosophical factors influence the field of kinesiology.
- outline the basic principles of current accepted nutritional standards for physically active individuals.
- describe the basic structure of the human body and how its various systems respond to exercise.

Career Information

Career opportunities include, but are not limited to, kinesiology instructor, exercise physiologist, athletic trainer, strength and conditioning coach, athletic coach, personal trainer, physical educator, and corporate fitness director.

Associate Degrees

A.S. in Physical Education

This degree provides an educational and practical foundation for students interested in multiple professions in the area of physical education. It also provides coursework required for transfer in physical education majors. Topics include introduction to physical education, care and prevention of athletic injuries, CPR, psychology, nutrition, dance, fitness, recreation, and sport. Students who work closely with their counselor can use this degree to prepare for majoring in kinesiology at a four-year college.

Degree Requirements

Course Code	Course Title	Units
BIOL 300	The Foundations of Biology (3)	3 - 4
or BIOL 310	General Biology (4)	
or PSYC 310	Biological Psychology (3)	
HEED 310	Heartsaver First Aid, Adult and Pediatric CPR and AED (1)	1 - 1.5[1]
or HEED 311	Pediatric First Aid, CPR AED (1.5)	
KINES 300	Introduction to Kinesiology	3
KINES 330	Care and Prevention of Athletic Injuries	3
NUTRI 300	Nutrition (3)	3
or NUTRI 302	Nutrition for Physical Performance (3)	
PSYC C1000	Introduction to Psychology (3)	3
or PSYC 305	Psychology Applied to Modern Life (3)	
or KINES 307	Mental Skills for Sport Performance (3)	
A minimum of 3 units from the following:		3
HEED 300	Health Science (3)	
OR three units from any of the following: DANCE, FITNS, PACT, SPORT, or TMACT.		
Total Units:		**19 - 20.5**

[1]If student has Community CPR certification through the American Red Cross, or Basic Life Support certification through the American Heart Association, the HEED 310 or HEED 311 requirement may be waived.

The Physical Education Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- list various occupations in the field of physical education
- identify basic bones, muscles, and ligaments of the human body
- compare key aspects of personal fitness as it relates to physical fitness programs
- construct a philosophy of physical education that includes goals for lifetime fitness
- evaluate current theories, philosophies, and trends in physical education
- recognize current job opportunities in the field of physical education
- summarize the education requirements for employment as a professional physical educator
- evaluate common athletically-related injuries in the field of physical education

- outline the basic principles of current accepted nutritional standards for physically active individuals
- discuss the role of physical and psychological health as it relates to physical education
- recount the historical evolution of physical education
- demonstrate skills needed to meet the minimal certification standards when performing first aid and CPR as required by a nationally recognized organization

Career Information

This degree is designed for those pursuing a career in coaching, health and fitness, personal training, and prepares students for transfer to four-year colleges and universities.

A.S. in Sports Medicine

This degree is designed to prepare students for transfer in the area of athletic training, exercise science, kinesiology, and other sports medicine related fields. Prevention, identification, evaluation, treatment, and rehabilitation of athletic injuries are emphasized.

Degree Requirements

Course Code	Course Title	Units
BIOL 430	Anatomy and Physiology	5
BIOL 431	Anatomy and Physiology	5
CHEM 305	Introduction to Chemistry (5)	5
or CHEM 400	General Chemistry I (5)	
NUTRI 300	Nutrition	3
KINES 330	Care and Prevention of Athletic Injuries	3
KINES 334	Practical Applications in Athletic Training/Sports Medicine	3
PSYC C1000	Introduction to Psychology	3
Total Units:		**27**

The Sports Medicine Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- list the minimum requirements to become a certified athletic trainer
- identify normal musculoskeletal anatomy
- evaluate common athletic-related injuries
- demonstrate proper wrapping and taping skills needed to protect commonly injured joints
- develop a diet for an active individual that is based on current accepted nutritional values
- create treatment protocols for common athletic-related injuries
- develop basic rehabilitation protocols for common athletic-related injuries
- manage the daily athletic training room set-up and break-down for fall and spring sports
- discuss how injuries affect the psychological health of the injured athlete

Adapted Physical Education (ADAPT) Courses

ADAPT 310 Adapted Lifetime Sports

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Students will need a statement from a health care professional verifying the disability, contraindications, and recommended activities.

Transferable: CSU; UC (Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course introduces students with physical disabilities to a variety of sports. Modifications and assistive devices are used to enable students to safely participate in a variety of sports, such as archery, badminton, volleyball, tennis, soccer, softball, basketball, and golf.

ADAPT 314 Wheelchair Sports and Games

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Students will need a statement from a health care professional verifying the disability, contraindications, and recommended activities.

Transferable: CSU; UC (Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course is designed for individuals with physical disabilities who use a wheelchair for mobility or who are ambulatory, but more successful in sports when using a wheelchair. Sports include, but are not limited to, basketball, quad rugby, volleyball, badminton, and tennis.

ADAPT 316 Adapted Personal Safety

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Enrollment Limitation: A statement from a health care professional verifying the disability, contraindications, and recommended activities.

Transferable: CSU; UC (Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course is designed for students who are unable to participate in a general personal safety course. It includes the skills, knowledge, and attitude which are important in avoiding or defending a physical attack. Topics include awareness and prevention of dangerous situations. Defensive strategies for protection while in the home, in the community, and on mass transit are also covered.

ADAPT 324 Heart Healthy

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Enrollment Limitation: A statement from a health care professional verifying the disability, contraindications, and recommended activities.

Transferable: CSU; UC

General Education: Local GE L7A

This course is designed for individuals with disabilities. Individualized and/or group activities are used to increase cardiovascular fitness. Exercise principles are discussed to encourage a continued healthy and active lifestyle.

ADAPT 330 Adapted Weight Training and Fitness

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Enrollment Limitation: A statement from a health care professional verifying the disability, contraindications, and recommended activities.

Transferable: CSU; UC (Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This is an individualized fitness course designed for individuals with disabilities. It includes individualized physical fitness programs including activities to develop muscular strength, flexibility, and cardiovascular endurance.

ADAPT 332 Adapted Aquatics

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Enrollment Limitation: A physician's statement verifying the disability, contraindications, and recommended activities

Transferable: CSU; UC (Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This is an individualized swimming, water safety, and fitness course designed for individuals with disabilities. It focuses on cardiovascular endurance, range of motion, mobility, muscular strength, and muscular endurance.

ADAPT 335 Adapted Yoga

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Enrollment Limitation: A statement from a health care professional verifying the disability, contraindications, and recommended activities.

Transferable: CSU; UC

General Education: Local GE L7A

This course is designed for students with disabilities. It emphasizes breathing, stretching, and relaxation techniques in group and individual yoga activities.

ADAPT 337 Adapted Walk and Wheel

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Enrollment Limitation: A statement from a health care professional verifying the disability, contraindications, and recommended activities.

Transferable: CSU; UC (Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course is designed for students who are unable to participate in a general physical education activity course. Individualized walking or wheeling programs are designed to enhance cardiorespiratory 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 338 Adapted Aerobic Activity

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Enrollment Limitation: A physician's statement verifying the disability, contraindications and recommended activities.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course is designed for students with a disability who are unable to participate in a general physical education activity course. It includes group activities as well as individualized activities. Indoor and outdoor workouts are used to enhance cardiovascular endurance and affect body composition. Activities may include walking and jogging, aerobic dance, cardio-kickboxing, step aerobics, chair aerobics, circuit training and cardio equipment workouts.

ADAPT 495 Independent Studies in Adapted Physical Education

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

General Education: Local GE L7A

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

ADAPT 499 Experimental Offering in Adapted Physical Education

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Fitness (FITNS) Courses

FITNS 302 Latin Aerobics

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L7A

This course combines a variety of rhythmic Latin-style dance movements into a form of cardiorespiratory training of low to moderate impact. It improves cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition.

FITNS 303 Dance Aerobics

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course promotes cardiovascular fitness and endurance through aerobic dance movement. It encourages core strength and flexibility with strength and muscular development exercises. It also covers the importance of basic nutrition, health, and safety.

FITNS 304 Cardio Circuit

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses: combined maximum credit 4 units.)

General Education: Local GE L7A

This course is designed as a cardio circuit form of fitness training. It combines cardio and weight training equipment in a circuit format. Emphasis will be on timed intervals to train major muscle groups and the cardiovascular system. It will include flexibility and core strengthening.

FITNS 306 Aerobics: Cardio-Kickboxing

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course promotes cardiovascular fitness and endurance through kickboxing. It emphasizes proper alignment, execution, and timing of faster-paced movements from kickboxing, boxing, and aerobic dance.

FITNS 307 Aerobic Mix

Units: 1

Hours: 54 hours LAB

Course Family: Group Cardio Fitness Training

Prerequisite: None.

Transferable: CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course includes a variety of aerobic activities that provide a new approach to each workout. It emphasizes rotating aerobic forms such as aerobic dance, step, cardio-kickboxing, and aerobic circuit to keep the workouts challenging and interesting. It covers basic heart rate calculations, nutrition, and workout methods.

FITNS 308 Step Aerobics

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course is designed to improve cardiovascular fitness and encourage better endurance, flexibility, and strength through the use of step aerobics. It includes rhythmic and choreographed step routines, basic stretch and toning exercises, and provides information related to overall health and fitness.

FITNS 310 Aquatic Fitness I

Units: 1

Hours: 54 hours LAB

Course Family: Aerobic Water Fitness

Prerequisite: None.

Transferable: CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course focuses on using the resistance of water for low- or non-weight-bearing exercise for improvement in cardiovascular fitness, muscular endurance, flexibility, and strength. It includes exercises in deep and shallow water and provides information related to overall health and fitness. No swimming skills are needed.

FITNS 314 Aquatic Fitness III- Deep Water Jogging

Units: 1

Hours: 54 hours LAB

Course Family: Aerobic Water Fitness

Prerequisite: None.

Transferable: CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course uses the resistance of water for non-weight-bearing exercises. Emphasis is on cardiovascular fitness, muscular endurance, strength, and flexibility. Progress is monitored through appropriate fitness testing. No swimming skills are needed. An optional flotation belt is provided.

FITNS 316 Lap Swimming

Units: 1

Hours: 54 hours LAB

Course Family: Swimming

Prerequisite: None.

Transferable: CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course provides a fitness based approach to swimming that emphasizes aerobic and anaerobic fitness through lap swimming. It utilizes interval training, cardiovascular conditioning, swimming technique, and aerobic training principles.

FITNS 321 Core Conditioning

Units: 1

Hours: 54 hours LAB

Course Family: Total Body Sculpting

Prerequisite: None.

Transferable: CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course incorporates a variety of activities including exercises with the stability ball, Bosu ball, and Pilates mat, along with yoga-based core work that enhances abdominal, lower back, gluteal, and hip strength with toning benefits to the entire body.

FITNS 324 Mat Pilates

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses: combined maximum credit 4 units.)

General Education: Local GE L7A

This course utilizes a systematic method of mindful and precise conditioning exercises designed to develop core strength, flexibility, and body awareness. Through the regular practice of theoretical and applied principles of the Mat Pilates method, students will see improved posture, control, balance, and concentration.

FITNS 325 Pilates

Units: 1

Hours: 54 hours LAB

Course Family: Total Body Sculpting

Prerequisite: None.

Transferable: CSU; UC ("(maximum of 4 units of PE activity courses accepted)")

General Education: Local GE L7A

This course focuses on precision alignment, flexibility, core strength, and building an awareness of the body. It involves a kinesthetic awareness that builds core strength and confidence in movement. Mat and wall stretches, exercises, and relaxations are used to encourage flexibility, balance, and coordination beginning with the deep postural muscles of the body.

FITNS 326 Mat Pilates II

Units: 1

Hours: 54 hours LAB

Prerequisite: FITNS 324 with a grade of "C" or better

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses: combined maximum credit 4 units.)

General Education: Local GE L7A

This course will include the basic foundation of mat exercises with the addition of intermediate level exercises. Routines will include resistance methods of training with a focus on developing stronger core muscles and flexibility.

FITNS 331 Boot Camp I

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC ((maximum of 4 units of PE activity courses accepted))

General Education: Local GE L7A

This is an intense boot camp fitness course that includes aerobic and anaerobic conditioning, strength and endurance training, and individual and team fitness concepts. Students are expected to complete coursework including indoor and/or outdoor jogging, interval training, etc.

FITNS 332 Off Season Conditioning

Units: 0.5 - 1

Hours: 27 - 54 hours LAB

Course Family: High Intensity Training

Prerequisite: None.

Transferable: CSU; UC ((maximum of 4 units of PE activity courses accepted))

General Education: Local GE L7A

This course involves athletic-specific training, physical conditioning, and movement techniques for highly motivated, physically fit students and off-season athletes. It emphasizes increasing cardiovascular conditioning, strength training, and advanced physical fitness.

FITNS 343 Spin Bike

Units: 1

Hours: 54 hours LAB

Course Family: Group Cardio Fitness Training

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course is specifically designed for students to improve their cardiovascular and strength levels with low impact on the joints. It emphasizes basic cycling and fitness drills based on speed work, resistance, and recovery periods.

FITNS 344 Dynamic Fitness Training I

Units: 1

Hours: 54 hours LAB

Course Family: Dynamic Fitness

Prerequisite: None.

Transferable: CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course introduces constant varied functional movements performed at relatively high intensity. It emphasizes proper mechanics utilizing body weight resistance. The workouts are varied daily and designed to optimize fitness levels.

FITNS 345 Dynamic Fitness Training II

Units: 1

Hours: 54 hours LAB

Course Family: Dynamic Fitness

Prerequisite: None.

Advisory: FITNS 344

Transferable: CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course provides dynamic fitness training via Olympic weight lifting and varied cardio-vascular training and conditioning. It is recommended for athletes with some background in weight training.

FITNS 346 Dynamic Cardio Training

Units: 1

Hours: 54 hours LAB

Course Family: Dynamic Fitness

Prerequisite: None.

Transferable: CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course improves cardiovascular conditioning through constant and varied training. Training consists of walking, running, jumping, spinning, and rowing with body weight strength training. Workouts are scaled to meet the level of each participant to train in the appropriate target heart rate zone.

FITNS 347 Dynamic Aquatic Fitness Training

Units: 1

Hours: 54 hours LAB

Course Family: Dynamic Fitness

Prerequisite: None.

Transferable: CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course provides a fast-moving, challenging aquatic workout, integrating traditional swim training with the addition of weight-bearing exercises in and out of the pool for complete body strength and cardiovascular conditioning.

FITNS 348 High-Intensity Interval Training

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC (UC transfer credit limitation: Any or all PE activity courses combined: maximum credit 4 units.)

General Education: Local GE L7A

This course is designed to be a physically intense and total body workout. It includes workouts which incorporate running, obstacle courses, and a variety of calisthenics designed to enhance muscular strength and endurance used in high-intensity interval workouts.

FITNS 350 Fitness And Weight Control

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC ((maximum of 4 units of PE activity courses accepted))

General Education: Local GE L7A

This course encourages a healthy attitude toward exercise, wellness, and nutrition. Topics include assessing and improving fitness levels, as well as nutrition, healthy living, and active lifestyle strategies that are involved in attaining and

maintaining appropriate levels of wellness. This course includes a variety of fitness activities that provide a new approach to each workout.

FITNS 351 Exercise, Balance and Mobility

Units: 1

Hours: 54 hours LAB

Course Family: Total Body Sculpting

Prerequisite: None.

Transferable: CSU; UC ((maximum of 4 units of PE activity courses accepted))

General Education: Local GE L7A

This course meets the needs of students who wish to start an individualized exercise program that have limited mobility. It focuses on improving flexibility through gentle range of motion exercises. It also focuses on increasing muscular strength through modified strength training exercises. Balance and coordination exercises are used to help reduce risk of falls and increase fitness levels and mobility. Individualized exercises are developed that can be carried out in a fitness center or at home.

FITNS 375 Introduction to Meditation

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course emphasizes the mind/body connection through techniques of visualization, affirmation, concentration, and body movements.

FITNS 380 Circuit Weight Training

Units: 1

Hours: 54 hours LAB

Course Family: Group Cardio Fitness Training

Prerequisite: None.

Transferable: CSU; UC (Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course introduces a system of exercise using weights and cardiovascular activities
to provide a balanced approach to physical fitness training. It emphasizes increasing muscular strength and endurance, cardiovascular endurance, and flexibility.

FITNS 381 Weight Training

Units: 0.5 - 1

Hours: 27 - 54 hours LAB

Course Family: Weight Training

Prerequisite: None.

Transferable: CSU; UC (UC limitation: maximum of 4 units of PE activity courses accepted)

General Education: Local GE L7A

This course provides instruction in weight training to promote muscular strength and endurance. Safety, weight training principles, and program design are emphasized to reach personal fitness and strength goals. Components of fitness are addressed, including flexibility and body composition. Workout guidelines for general fitness, sport performance, and/or bodybuilding may be chosen for individual goals.

FITNS 384 Weight Training II

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course is a strength training program for students involved in intermediate level weight training. It is designed to develop muscular strength and endurance appropriate to specific lifts. The components of designing and implementing individual weight training programs are addressed.

FITNS 385 Weight Training for Competition

Units: 0.5 - 1

Hours: 27 - 54 hours LAB

Course Family: Weight Training

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: maximum of 4 units of PE activity courses accepted)

General Education: Local GE L7A

This course is a strength training program for students involved in advanced weight training. It is designed to develop strength, power, and muscle endurance appropriate to specific lifts.

FITNS 386 Weight Training III

Units: 1

Hours: 54 hours LAB

Course Family: Weight Training

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course is a strength training program for students involved in advanced level weight training. It is designed to develop muscular strength and power appropriate to the priority placed on Olympic style lifts. Nutrition will be addressed as it relates to pre-workout, post-workout, and recovery.

FITNS 392 Yoga

Units: 1

Hours: 54 hours LAB

Course Family: Yoga

Prerequisite: None.

Transferable: CSU; UC ((maximum of 4 units of PE activity courses accepted))

General Education: Local GE L7A

This course in Yoga emphasizes breathing, stretching, and relaxing techniques. Yoga positions and philosophies are practiced and examined.

FITNS 393 Yoga II

Units: 1

Hours: 54 hours LAB

Prerequisite: FITNS 392 with a grade of "C" or better

Transferable: CSU; UC (UC transfer credit limitation: Any or all PE activity courses combined: maximum credit 4 units.)

General Education: Local GE L7A

This course is designed to strengthen and enhance muscle tone through the practice of asanas and pranayama techniques. Yoga practice with elements of meditation are examined to decrease stress, improve concentration, and increase spiritual connection.

FITNS 395 Stretch

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC ((maximum of 4 units of PE activity courses accepted))

General Education: Local GE L7A

This course emphasizes stretching for better alignment, health, and increased range of motion. It provides an individualized approach to stretching and includes pre- and post-stretching techniques for specific activities such as sports, dance, or repetitive stress work-related movements.

FITNS 396 Yoga Sculpt

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Advisory: FITNS 392

Transferable: CSU; UC

General Education: Local GE L7A

This is a high intensity blend of yoga and strength training. Yoga is the base of the class with the addition of weights for toning and strengthening the core and cardio to provide a full body comprehensive workout.

FITNS 400 Body Fitness (Walking or Jogging)

Units: 1

Hours: 54 hours LAB

Course Family: Cardio Fitness

Prerequisite: None.

Transferable: CSU; UC ((maximum of 4 units of PE activity courses accepted))

General Education: Local GE L7A

This course promotes physical well-being through physical activity, including but not limited to walking and jogging, to increase cardiovascular fitness, produce stress reduction, and encourage weight control. Attention is given to increasing cardiovascular efficiency, muscular strength, and endurance.

FITNS 414 Tai Chi

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC ("(maximum of 4 units of PE activity courses accepted)")

General Education: Local GE L7A

This course explores the traditional Chinese fitness exercise of Tai Chi. It provides for the development of basic skills and techniques that lead toward an integration of the mind-body-spirit trilogy. Various Chinese fitness exercises in relation to health are explored. Principles of Confucianism and Taoism,

including a basic review of Tai Chi history and philosophy are discussed. Overall, the physical discipline and structure of Tai Chi movements are emphasized.

FITNS 440 Swimming I

Units: 1

Hours: 54 hours LAB

Course Family: Swimming

Prerequisite: None.

Transferable: CSU; UC ((maximum of 4 units of PE activity courses accepted))

General Education: Local GE L7A

This is a beginning swim class. Swimmers will learn basic water acclimation, water safety, and how to perform basic swimming skills. Students will learn the front and back float, front and back streamline glide, and introductory skills in freestyle stroke, backstroke, and proper breathing.

FITNS 441 Swimming II

Units: 1

Hours: 54 hours LAB

Course Family: Swimming

Prerequisite: None.

Advisory: This course is taught in deep water. It is important that the student is confident in their back & front float ability as they will not be able to touch the bottom to move to the pool edge.

Transferable: CSU; UC (a maximum of 4 units of PE activity courses allowed.)

General Education: Local GE L7A

This course is designed as a beginner 2 course, continuing work on freestyle and backstroke technique, advancing to underwater work and starts and turns with more endurance swimming of both strokes.

FITNS 442 Swimming III

Units: 1

Hours: 54 hours LAB

Course Family: Swimming

Prerequisite: None.

Advisory: FITNS 441

Transferable: CSU; UC (A maximum of 4 units of PE activity allowed for transfer)

General Education: Local GE L7A

This course covers skills for intermediate swimmers; water safety, and basic swimming skills, swim training protocols and technique, further refinement of stroke development, proper starts and turns technique, and development of cardiovascular capacity. It includes stroke technique in freestyle, backstroke, and breaststroke, as well as turns for freestyle, backstroke and breaststroke.

FITNS 443 Swimming IV

Units: 1

Hours: 54 hours LAB

Course Family: Swimming

Prerequisite: None.

Advisory: FITNS 442

Transferable: CSU; UC (a maximum of 4 units of PE activity allowed for transfer to UC.)

General Education: Local GE L7A

This course for advanced swimmers (those who have mastered intermediate swimming skills) covers proper technique specific to the four competitive strokes, proper training protocols, and training design. It emphasizes proper stroke technique of freestyle, backstroke, breaststroke, and butterfly, as well as underwater efficiency in diving, turns, and breakouts for all competitive strokes. It also introduces more advanced swim training protocols, drills, and workout designs.

FITNS 450 Personal Safety

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC ((maximum of 4 units of PE activity courses accepted))

General Education: Local GE L7A

This course provides information and develops skills for an individual's personal safety in a variety of situations. Topics include awareness and prevention of dangerous situations along with physical and non-physical defensive strategies. Community resources for victims of assault are discussed.

FITNS 495 Independent Studies in Fitness

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

General Education: Local GE L7A

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

FITNS 499 Experimental Offering in Fitness

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Kinesiology (KINES) Courses

KINES 300 Introduction to Kinesiology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: All KINES courses combined: maximum credit, 8 units)

General Education: Local GE L7B

C-ID: C-ID KIN 100

This course provides an introduction to the interdisciplinary approach to the study of human movement. It provides an orientation to various educational pathways, requirements, and career opportunities in kinesiology in the areas of teaching, coaching, allied health, and fitness professions. Basic concepts of the kinesiology discipline and the importance of the sub-disciplines are discussed.

KINES 307 Mental Skills for Sport Performance

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course provides a concentrated study of competition and motivation for sports. It also includes the study of the brain's impact on muscular activity in athletic performance. Stress management, goal setting, peak performance, adaptability, sport imagery training, and effective practice are covered.

KINES 330 Care and Prevention of Athletic Injuries

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLW 340.

Transferable: CSU; UC (UC credit limitation: All KINES courses combined: maximum credit, 8 units)

This course is an introduction to injury prevention, injury care, and rehabilitation of athletic injuries. It includes basic information regarding sports injuries, their causes, and treatments.

KINES 334 Practical Applications in Athletic Training/Sports Medicine

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Corequisite: KINES 330

Transferable: CSU; UC (UC credit limitation: All KINES courses combined: maximum credit, 8 units)

This course is designed to provide an overall experience of the sports medicine/athletic training profession. Topics include common evaluation and rehabilitative techniques, modality usage, and advanced taping and wrapping methods. This course is formerly known as PET 334.

KINES 494 Topics in Physical Education Theory

Units: 0.5 - 4

Hours: 9 - 72 hours LEC

Prerequisite: None.

Transferable: CSU

This umbrella course provides concentrated study of a variety of current fitness issues. Topics reflect contemporary concerns for physical fitness, performance in competitive sport, and wellness. This course is formerly known as PET 494.

KINES 495 Independent Studies in Physical Education Theory

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

KINES 498 Work Experience in Kinesiology

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Physical Education Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of physical education. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

KINES 499 Experimental Offering in Kinesiology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Personal Activity (PACT) Courses

PACT 300 Archery I

Units: 1

Hours: 54 hours LAB

Course Family: Archery

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: Any or all PE Activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

The course emphasizes safety, knowledge, and basic skill development in recurve archery. No compound or crossbows are allowed. It also covers basic techniques with an emphasis on knowledge and use of the bow and related equipment.

PACT 310 Badminton I

Units: 1

Hours: 54 hours LAB

Course Family: Badminton

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course provides instruction in basic fundamentals, techniques, and rules of badminton. The emphasis is on skill and technique development, as well as strategies for singles and doubles.

PACT 311 Badminton II

Units: 1

Hours: 54 hours LAB

Course Family: Badminton

Prerequisite: None.

Enrollment Limitation: PACT 310 with a grade of "C" or better OR the ability to demonstrate skills beyond that of a beginning player - serve, smash, high clear, drop shot.

Transferable: CSU; UC (UC credit limitation: Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

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 350 Golf I

Units: 1

Hours: 54 hours LAB

Course Family: Golf

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course introduces the basic skills and knowledge necessary to play the game of golf. It focuses on the fundamental skills necessary to strike and putt the ball. It introduces the rules and etiquette necessary to play the game. Some portions of this course may be held on regulation golf courses to which students must bring their own golf clubs and pay for range and/or greens fees. Field trips are required.

PACT 351 Golf II

Units: 1

Hours: 54 hours LAB

Course Family: Golf

Prerequisite: None.

Enrollment Limitation: PACT 350 with a grade of "C" or better; or the ability to perform a golf swing correctly and demonstrate the basic skills needed to play golf on a course.

Transferable: CSU; UC (UC credit limitation: Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course covers the intermediate skills and knowledge necessary to play the game of golf. It focuses on swing evaluation necessary to improve ball striking, the rules and etiquette necessary to play on a public course, and course management strategies in order to negotiate a golf course. Some portions of this course may be held on area regulation golf courses in which students must bring their own golf clubs and pay range costs and/or greens fees. Field trips are required.

PACT 352 Golf III

Units: 1

Hours: 54 hours LAB

Course Family: Golf

Prerequisite: None.

Enrollment Limitation: PACT 351 (Golf II) or experience playing on a golf course.

Transferable: CSU; UC (UC credit limitation: Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course covers advanced skills and knowledge necessary to excel at the game of golf. It focuses on improving the swing, special shot-making techniques, course management strategies for the advanced golfer, and clarification of rules and etiquette necessary to play the game at an advanced level. Different tournament formats are explored. Some portions of this course may be held on area regulation golf courses in which students must bring their own golf clubs, pay greens fees, and/or range costs. Field trips are required.

PACT 390 Tennis I

Units: 1

Hours: 54 hours LAB

Course Family: Tennis

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: Any or all PE Activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course covers basic technique of strokes, rules of play, simple strategies, and the etiquette of tennis.

PACT 391 Tennis II

Units: 1

Hours: 54 hours LAB

Course Family: Tennis

Prerequisite: None.

Advisory: PACT 390

Transferable: CSU; UC

General Education: Local GE L7A

This course reviews basic fundamentals, techniques, rules, and social courtesies of tennis. It is intended for intermediate-level tennis players.

PACT 393 Tennis III

Units: 1

Hours: 54 hours LAB

Course Family: Tennis

Prerequisite: None.

Advisory: PACT 391

Transferable: CSU; UC

General Education: Local GE L7A

This course focuses on improving and refining the physical and mental skills and techniques of tennis. Particular attention is given to strategic development of the player, while refining the racket skills that set up and finish points. Developing patterns, serving placement, and tactical court positioning are introduced and developed.

PACT 430 Pickleball I

Units: 1

Hours: 54 hours LAB

Course Family: Pickleball

Prerequisite: None.

Transferable: CSU; UC (UC transfer credit limitation: Any or all PE activity courses combined: maximum credit 4 units.)

General Education: Local GE L7A

This course covers basic technique of strokes, rules of play, simple strategies, and the etiquette of pickleball.

PACT 431 Pickleball II

Units: 1

Hours: 54 hours LAB

Course Family: Pickleball

Prerequisite: None.

Transferable: CSU; UC (UC transfer credit limitation: Any or all PE activity courses combined: maximum credit 4 units.)

General Education: Local GE L7A

This course reviews basic fundamentals, techniques, rules, and social courtesies of pickleball. It emphasizes skill and technique development beyond that of a beginning player, as well as intermediate strategies for singles and doubles.

PACT 432 Pickleball III

Units: 1

Hours: 54 hours LAB

Course Family: Pickleball

Prerequisite: None.

Transferable: CSU; UC (UC transfer credit limitation: Any or all PE activity courses combined: maximum credit 4 units.)

General Education: Local GE L7A

This course focuses on improving and refining the physical and mental skills and techniques of pickleball. Particular attention is given to strategic development of the player, while refining the paddle skills that set up and finish points. Developing patterns, dink placement, and tactical court positioning are introduced and developed.

PACT 495 Independent Studies in Personal Activity

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

General Education: Local GE L7A

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

PACT 499 Experimental Offering in Personal Activity

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

General Education: Local GE L7A

This is the experimental courses description.

Sports (SPORT) Courses

SPORT 300 Baseball, Intercollegiate-Men

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: In order to take this class, each student must: 1) be listed as a student athlete, by the head coach, on the official team roster; and 2) obtain medical clearance, including a physical performed by a licensed physician. The student should contact the instructor for process and required forms. Once enrolled, the student must demonstrate intercollegiate athletic level skills as determined by the coaching staff to remain enrolled in this course.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course provides an opportunity for intercollegiate competition in men's baseball. It provides baseball related skills, fundamentals, and team strategy. This course may be taken four times for credit.

SPORT 301 Off Season Conditioning for Baseball

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course is designed to optimize sports performance and reduce the risk of injury for the off-season intercollegiate athlete in the sport of baseball. Course content includes sport-specific skill development, sport-specific strength training, cardiovascular conditioning, agility work, plyometrics, speed training, and flexibility exercises. This course may be taken up to four times for credit.

SPORT 311 Basketball, Intercollegiate-Men, Fall

Units: 1.5

Hours: 87.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition. May be taken four times for credit.

SPORT 312 Basketball, Intercollegiate-Men, Spring

Units: 1.5

Hours: 87.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course covers fundamentals, rules, individual and/or team strategy appropriate to intercollegiate athletic competition. May be taken four times for credit.

SPORT 313 Off Season Conditioning for Basketball

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course is designed to optimize sports performance and reduce the risk of injury for the off-season intercollegiate athlete in the sport of basketball. Topics include college-level basketball-specific skill development, sport-specific strength training, agility work, plyometrics, speed training, and flexibility exercises. This course may be taken up to four times for credit.

SPORT 314 Pre-Season Conditioning for Basketball

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course is designed to increase sport performance and overall understanding of intercollegiate basketball concepts and strategic philosophies. Topics 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 drills, plyometrics, and speed training. This course may be taken up to four times for credit.

SPORT 316 Basketball, Intercollegiate-Women, Fall

Units: 1.5

Hours: 87.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course covers the fundamentals, rules, and the individual and/or team strategies appropriate to intercollegiate athletic competition. This course may be taken three times for credit.

SPORT 317 Basketball, Intercollegiate-Women, Spring

Units: 1.5

Hours: 87.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course covers the fundamentals, rules, and the individual and/or team strategies appropriate to intercollegiate athletic competition. This course may be taken three times for credit.

SPORT 320 Cross Country, Intercollegiate-Men

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course covers fundamentals, rules, and individual and team strategies appropriate to intercollegiate athletic competition in men's cross country. It provides opportunities for student-athletes to compete at the intercollegiate level. This course may be taken up to four times for credit.

SPORT 325 Cross Country, Intercollegiate-Women

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: In order to take this class, each student must: 1) be listed as a student athlete, by the head coach, on the official team roster; and 2) obtain medical clearance, including a physical performed by a licensed physician. The student should contact the instructor for process and required forms. Once enrolled, the student must demonstrate intercollegiate athletic level skills as determined by the coaching staff to remain enrolled in the course.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This is an advanced team activity for female students providing specialized training for competition. It covers fundamental and advanced techniques needed for specific events, along with the rules and strategies appropriate for intercollegiate competition. This course may be taken up to four times for credit.

SPORT 328 Off-Season Conditioning for Cross Country

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7A

This course involves sport specific training, conditioning, and technical skill development specific to the sport of cross country for the off-season athlete. Course content includes: sport specific skill development, event specific strength training, cardiovascular conditioning, anaerobic speed development, and enhancement of flexibility. This course may be taken up to four times for credit.

SPORT 330 Football, Intercollegiate-Men

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course is an intercollegiate sport providing opportunity for competition in men's football. It provides football fundamentals, skills, rules, and individual and team strategies appropriate for intercollegiate athletic competition. This course may be taken up to four times for credit.

SPORT 331 Off Season Conditioning for Football

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course involves training and technical skill development specific to the sport of football for off-season student-athletes. Topics include skill development, strength training, speed development, agility training, plyometric drills, cardiovascular conditioning, and increased flexibility. This course may be taken up to four times for credit.

SPORT 332 Pre-Season Conditioning for Football

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course covers advanced offensive and defensive strategies for football at the college level. Blocking schemes, tackling techniques, as well as offensive and defensive formations are discussed. Strength and conditioning drills are included to enhance football skills. This course may be taken up to four times for credit.

SPORT 345 Golf, Intercollegiate-Women

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

This course is an intercollegiate sport providing opportunities for competition in women's golf.
It covers fundamentals and skills, rules, individual and/or team strategy appropriate to intercollegiate athletic competition.

SPORT 350 Soccer, Intercollegiate-Men

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course provides opportunity for intercollegiate competition in men's soccer. Soccer fundamentals and skills are covered. It also includes rules, and individual and team strategies appropriate for intercollegiate athletic competition. This course may be taken up to four times for credit.

SPORT 351 Off-Season Conditioning for Men's Soccer

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

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. This course may be taken up to four times for credit.

SPORT 355 Soccer, Intercollegiate-Women

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course is an intercollegiate sport providing opportunity for competition in women's soccer. It provides soccer fundamentals and skills, including rules as well as individual and team strategy appropriate for intercollegiate athletic competition. This course may be taken up to four times for credit.

SPORT 356 Off Season Conditioning for Women's Soccer

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This physical education course covers training and conditioning skills and techniques specific for intercollegiate soccer. It focuses on basic concepts and skills with emphasis on conditioning. This course may be taken up to four times for credit.

SPORT 358 Pre-Season Conditioning for Men's Soccer

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course increases sport performance and the overall understanding of intercollegiate soccer concepts and strategic philosophies. Topics 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.

SPORT 365 Softball, Intercollegiate-Women

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This is an advanced softball activity that provides competition with other community college teams. Fundamentals, rules, team strategy, and softball skills appropriate to intercollegiate athletic competition are expected of the competitors. This course may be taken up to four times for credit.

SPORT 366 Off Season Conditioning for Softball

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course covers fundamental skills and strategy tactics with an emphasis on a fitness component for intercollegiate athletics in the sport of softball. It offers a mental training component for peak performance. This course may be taken up to four times for credit.

SPORT 370 Swimming and Diving, Intercollegiate-Men

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This is an advanced swimming and diving activity course that provides competition with other community college teams. It provides swimmers and divers with fundamentals, rules, team strategies, and aquatic skills. This course may be taken up to four times for credit.

SPORT 375 Swimming and Diving, Intercollegiate-Women

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

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 may be taken up to four times for credit.

SPORT 376 Off Season Swim & Dive

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Enrollment Limitation: Try out. This course is designed for athletes on the swim and dive team.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

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 may be taken up to four times for credit.

SPORT 377 Pre-Season Conditioning Swim & Dive

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Enrollment Limitation: Try out

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

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. It may be taken up to four times for credit.

SPORT 380 Tennis, Intercollegiate-Men

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course covers fundamentals, rules, and individual and/or team strategy appropriate to intercollegiate athletic competition in tennis. This course may be taken four times for credit.

SPORT 385 Tennis, Intercollegiate-Women

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course covers fundamentals, rules, and individual and/or team strategy appropriate to intercollegiate athletic competition in tennis. This course may be taken four times for credit.

SPORT 386 Off Season Conditioning for Tennis

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Enrollment Limitation: Two years of varsity high school experience or equivalent. Tryout required.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course prepares the intercollegiate tennis player for the competitive season and reduces risk of injury. Course content includes collegiate level tennis-specific skill development, a solid aerobic conditioning plan, sport-specific strength

training, agility work, plyometrics, speed training, flexibility exercises and other activities designed to prepare the athlete both physically and mentally. This course may be taken up to four times for credit.

SPORT 390 Track and Field, Intercollegiate-Men

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This intercollegiate track and field course provides specialized training for competition with other community college teams. It covers the fundamental and advanced techniques needed for specific events, along with the rules, strategies, sportsmanship, and teamwork appropriate for intercollegiate competition. This course may be taken up to four times for credit.

SPORT 395 Track and Field, Intercollegiate-Women

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: In order to take this class, each student must: 1) be listed as a student athlete, by the head coach, on the official team roster; and 2) obtain medical clearance, including a physical performed by a licensed physician. The student should contact the instructor for process and required forms. Once enrolled, the student must demonstrate intercollegiate athletic level skills as determined by the coaching staff to remain enrolled in the course.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This is an advanced track and field team activity for female students providing specialized training for competition. It covers the fundamental and advanced techniques needed for specific events, along with the rules and strategies appropriate for intercollegiate competition. This course may be taken up to four times for credit.

SPORT 396 Off Season Conditioning for Track and Field

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Enrollment Limitation: In order to take this class, each student must: 1) be listed as a student athlete, by the head coach, on the official team roster; and 2) obtain medical clearance, including a physical performed by a licensed physician. The student should contact the instructor for process and required forms. Once enrolled, the student must demonstrate intercollegiate athletic level skills as determined by the coaching staff to remain enrolled in this course.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course includes sport-specific training, conditioning, and technical skill development specific to the sport of track and field for the off-season student athlete. Course content includes sport-specific skill development, event-specific strength training, cardiovascular conditioning, agility training, plyometric drills, anaerobic speed development, and enhancement of flexibility. This course may be taken up to four times for credit.

SPORT 403 Pre-Season Conditioning for Volleyball

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Enrollment Limitation: Students must demonstrate intercollegiate athletic skills determined by a tryout conducted by the coaching staff.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course involves a combination of skill development and strategy tactics with an emphasis on a fitness component for the sport of volleyball. It offers a mental training component for peak performance. This course is designed to prepare students for intercollegiate volleyball competition. It may be taken up to 4 times for credit.

SPORT 405 Volleyball, Intercollegiate-Women

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course provides an opportunity for competition in intercollegiate women's volleyball. It provides volleyball fundamentals and skills. It also includes rules and individual and team strategies appropriate for intercollegiate athletic competition. This course may be taken four times for credit.

SPORT 406 Off Season Conditioning for Volleyball

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: Students must demonstrate intercollegiate athletic skills determined by a tryout conducted by the coaching staff.

Enrollment Limitation: Tryout.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course provides training and technical skill development specific to the sport of volleyball for off-season student-athletes. Topics include skill development, strength training, cardiovascular conditioning, agility work, plyometrics, speed training, and flexibility exercises. This course may be taken up to four times for credit.

SPORT 408 Intercollegiate Beach Volleyball

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: In order to take this class, each student must: 1) be listed as a student athlete, by the head coach, on the official team roster; and 2) obtain medical clearance, including a physical performed by a licensed physician. The student should contact the instructor for process and required forms. Once enrolled, the student must demonstrate intercollegiate athletic level skills as determined by the coaching staff to remain enrolled in this course.

Transferable: CSU; UC

General Education: Local GE L7A

This course provides an opportunity for competition in intercollegiate women's beach volleyball. It provides beach volleyball fundamentals and skills. It also includes rules and individual and pair strategies appropriate for intercollegiate athletic competition. This course may be taken four times for credit.

SPORT 410 Water Polo, Intercollegiate-Men

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This advanced water polo team activity provides opportunities for competition with other community college teams. Fundamentals, rules, team strategy, and swimming skills appropriate to intercollegiate athletic competition are expected of the competitors. This course may be taken up to four times for credit.

SPORT 415 Water Polo, Intercollegiate-Women

Units: 3

Hours: 175 hours LAB

Prerequisite: None.

Enrollment Limitation: Tryout

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This is an advanced water polo team activity that provides competition with other community college teams. Fundamentals, rules, team strategy, and swimming skills

appropriate to intercollegiate athletic competition are expected of the competitors. This course may be taken up to four times for credit.

SPORT 416 Off Season Water Polo

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Enrollment Limitation: Try out.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course combines basic skills and strategy tactics with an emphasis on a fitness component for the sport of water polo. It also offers a dry-land training component for peak performance. This course is designed to prepare students for intercollegiate water polo competition. This course may be taken up to four times for credit.

SPORT 417 Pre-Season Conditioning for Water Polo

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Enrollment Limitation: Try out.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units.)

General Education: Local GE L7A

This course is designed for student athletes involved in or trying out for the collegiate water polo team. It combines basic skills and strategy tactics with an emphasis on a fitness component for the sport of water polo. It also offers a dry-land training component for peak performance. This course is designed to prepare students for intercollegiate water polo competition.

SPORT 495 Independent Studies in Sport

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

General Education: Local GE L7A

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

SPORT 499 Experimental Offering in Sport

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

General Education: Local GE L7A

This is the experimental courses description.

Team Activity (TMACT) Courses

TMACT 300 Soccer, Indoor

Units: 1

Hours: 54 hours LAB

Course Family: Soccer

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course covers the beginning-level knowledge and skills needed to play indoor soccer. It also covers the differences between indoor and outdoor soccer as well as the history, techniques, rules, and strategies of the game with an emphasis on improvement of their physical fitness and skills.

TMACT 301 Indoor Soccer II

Units: 1

Hours: 54 hours LAB

Course Family: Soccer

Prerequisite: TMACT 300 with a grade of "C" or better

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course covers the intermediate-level player knowledge and skills needed to play indoor soccer, with an emphasis in defending, attacking, and technical ability. It also covers the skills, strategy, and rules that govern the play of indoor soccer.

TMACT 302 Soccer - Outdoor

Units: 1

Hours: 54 hours LAB

Course Family: Soccer

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course covers the beginning-level knowledge and skills needed to play outdoor soccer, emphasizing defense, offense, passing, ball control, heading, and shooting. It also covers the skills, strategy, and rules that govern the play of outdoor soccer.

TMACT 303 Outdoor Soccer II

Units: 1

Hours: 54 hours LAB

Course Family: Soccer

Prerequisite: TMACT 302 with a grade of "C" or better

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course covers the intermediate-level player environment to challenge and improve the player's knowledge and skills needed to play outdoor soccer, emphasizing defending, attacking, and technical ability. It covers the skills, strategy, and rules that govern the play of outdoor soccer. This class is not designed for beginning soccer players.

TMACT 304 Outdoor Soccer III

Units: 1

Hours: 54 hours LAB

Course Family: Soccer

Prerequisite: TMACT 303 with a grade of "C" or better

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course covers an advanced level knowledge and skills needed to play outdoor soccer, emphasizing technical and conditioning drills, game preparations, match analysis, and tactical knowledge, as well as defensive and offensive drills of advanced level play. It also introduces basic coaching techniques.

TMACT 320 Basketball

Units: 1

Hours: 54 hours LAB

Course Family: Basketball

Prerequisite: None.

Advisory: Participation on a high school basketball team

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course features tournament scrimmage play to improve offensive, defensive, and team skills for basketball. It also covers individual fundamental skills including shooting, passing, ball handling, individual defense, and rebounding.

TMACT 330 Volleyball

Units: 1

Hours: 54 hours LAB

Course Family: Volleyball

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This beginning volleyball course covers the basic techniques of passing, setting, serving, and attacking, as well as rules and simple strategies of play.

TMACT 331 Volleyball II

Units: 1

Hours: 54 hours LAB

Course Family: Volleyball

Prerequisite: TMACT 330 with a grade of "C" or better

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This intermediate course focuses on refining basic skills of serving, passing, and setting as well as further developing skills in serve-receive, defense, spiking, blocking, and digging. It also covers challenging techniques and strategies that follow NCAA collegiate rules and etiquette.

TMACT 333 Volleyball III

Units: 1

Hours: 54 hours LAB

Course Family: Volleyball

Prerequisite: TMACT 331 with a grade of "C" or better

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This advanced volleyball class focuses on more complicated skills and techniques of the sport. Competitive play takes a higher priority. Topics include a variety of offensive and defensive systems, and how to apply them in a game-like setting.

TMACT 340 Football

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Advisory: ENGWR 102 and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better.

Transferable: CSU; UC (UC credit limitation: Any or all PE activity courses combined: maximum credit, 4 units)

General Education: Local GE L7A

This course covers advanced offensive and defensive strategies for football at the college level. Blocking schemes, tackling techniques, as well as offensive and defensive formations are discussed.

TMACT 495 Independent Studies in Team Activity

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

General Education: Local GE L7A

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

TMACT 499 Experimental Offering in Team Activity

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

General Education: Local GE L7A

This is the experimental courses description.

Learning Resource Center

Overview

The Learning Resource Center (LRC) is an instructional facility that provides classrooms, a quiet learning environment, and instructional support services. The LRC advances the vision and mission of American River College by offering supplemental instruction and academic support through individualized tutoring and other alternative modes of instruction to currently enrolled ARC students seeking to successfully achieve their educational goals.

Interim Dean: Mikenna Modesto

Phone: (916) 484-8693

Learning Resource Center (LRC) Courses

LRC 300 Introduction to Tutor Training

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Enrollment Limitation: A grade of B or better in the course to be tutored. Faculty recommendation and approval to be a tutor in the LRC Department.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course is offered in coordination with the Learning Resource Center Tutorial Services Program. It introduces the role of a tutor and the methods of effective tutoring. It covers establishing goals and objectives, implementing a tutorial plan, applying effective learning skills, developing effective communication and listening skills, and fostering critical thinking. This course is formerly known as INDIS 320.

LRC 310 Introduction to Supplemental Instruction

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Enrollment Limitation: Faculty recommendation to become a Beacon SI Leader and passed the course to be supported with a grade of "B" or better.

Advisory: ENGL C1000 or ESLW 340 with a grade of "C" or better

Transferable: CSU

This course is offered in coordination with the Beacon Supplemental Instruction (SI) Program at American River College. It introduces the role of the SI Leader as a facilitator and presents the methods of effective group facilitation skills and collaborative learning theory.

LRC 499 Experimental Offering in Learning Resource Center

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

LRC 1000 Supervised Tutoring

Units: 0

Hours: 500 hours LAB

Prerequisite: None.

Enrollment Limitation: Student must be enrolled in an ARC college credit course and be referred to tutoring by an ARC instructor or counselor on the basis of an identified learning need.

This course offers individualized tutoring designed to assist students to increase their success in college courses. Content varies depending upon the adjunct course. Attention is given to essential study skills and utilization of campus learning resources. Students may enroll for support of more than one college course per semester. This course may be repeated in subsequent semesters. This noncredit supervised tutoring course allows for 1-500 hours per semester.

Library

Overview

The American River College Library courses teach vital research skills that enable students to achieve success in their college classes, their careers, and their day-to-day lives. Students will learn research skills to cope with the information rich environment in which they live. In particular, students will learn how to find and critically evaluate information from a wide variety of sources to meet their information needs.

Interim Dean: Mikenna Modesto

Department Chair: Sarah Lehmann

Phone: (916) 484-8455

Library (LIBR) Courses

LIBR 318 Library Research and Information Literacy

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: CISC 300 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L7B

This course introduces the skills necessary to conduct research and helps students refine their current research skills. This course covers the research process including developing search strategies, using a variety of research tools, and resources selecting relevant sources. Critical evaluation of information, including how bias, power, and privilege influence the creation of, dissemination of, and access to information is also explored. The topics covered in this course are applicable to personal, professional, and academic research.

LIBR 325 Internet Research Skills

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: CISC 300; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

This course surveys the content, use, and evaluation of electronic information sources. Emphasis is placed on the effective use of the Internet as a research tool. It covers Internet resources including the deep Web, Web portals, online databases, and library catalogs. Communication

services such as email, newsgroups, listservs, blogs, and social networks are also studied as are Web 2.0 and other emerging technologies. Database search strategies, techniques, and critical evaluation of information are covered. Historical and social issues surrounding the Internet are also discussed.

LIBR 494 Topics in Library Science

Units: 0.5 - 4

Hours: 9 - 72 hours LEC

Prerequisite: None.

Transferable: CSU

This course provides an opportunity to study current topics in library science that are not included in existing courses.

LIBR 495 Independent Studies in Library

Units: 1 - 3

Hours: 18 - 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course provides an opportunity for independent study on issues related to library science.

LIBR 499 Experimental Offering in Library

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Management

Overview

This program is intended for those who wish to progress to positions of responsibility in their respective industry. Its strong management focus provides the knowledge and skills needed to progress into management positions. Topics include management communication, human resources, organizational behavior, diversity management, and business computer applications.

Degrees and Certificates Offered

A.A. in Management

Conflict Management Certificate

Leadership Certificate

Management Certificate

Project Management Certificate

Division Dean: Kirsten Corbin

Department Chair: Heidi Bennett

Phone: (916) 484-8361

Email: ARCBUSClerk@arc.losrios.edu

Associate Degree

A.A. in Management

This program is intended for those who wish to progress to positions of responsibility in their respective industry. Its strong management focus provides the knowledge and skills needed to progress into management positions. Topics include management communication, human resources, organizational behavior, diversity management, and business computer applications.

Degree Requirements

Course Code	Course Title	Units
BUS 317	Managing Workplace Conflict	3
BUS 330	Managing Diversity in the Workplace	3
MGMT 300	Introduction to Leadership in Action	3
MGMT 304	Principles of Management (3)	3
MGMT 308	Personnel and Human Resources Management (3)	3
MGMT 360	Management Communication (3)	3
MGMT 372	Human Relations and Organizational Behavior	3
A minimum of 3 units from the following:		3
BUS 332	Cross-Cultural Customer Service (3)	
BUS 340	Business Law (3)	
CISA 305	Beginning Word Processing (2)	
CISA 306	Intermediate Word Processing (2)	
CISA 315	Introduction to Electronic Spreadsheets (2)	
CISA 316	Intermediate Electronic Spreadsheets (2)	
CISA 340	Presentation Graphics (2)	
MGMT 142	Project Management Techniques and Software (3)	
Total Units:		**24**

The Management Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California

General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- incorporate leadership skills and abilities that are effective in managing a multicultural workforce.
- analyze practical business problems.
- apply current management philosophies to current management problems.
- integrate management principles in relationship to finance, personnel, products, services and information.
- communicate effectively verbally and in writing in various business settings.
- utilize critical thinking and research skills in the evaluation of alternative solutions.

Certificates of Achievement

Conflict Management Certificate

This certificate focuses on identifying and understanding the underlying causes of workplace conflict and strategies for managing conflict effectively. It explores the impact of conflict on workplace communication, decision-making, and leadership. It covers practical and strategic skills to prevent escalation of conflict and defuse disruptive behaviors.

Certificate Requirements

Course Code	Course Title	Units
BUS 317	Managing Workplace Conflict	3
BUS 330	Managing Diversity in the Workplace	3
MGMT 308	Personnel and Human Resources Management	3
MGMT 372	Human Relations and Organizational Behavior	3
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- explain and assess the role personality and negotiating temperament play in workplace conflict management
- analyze the negotiation process, strategies, and techniques for effective conflict resolution in the workplace
- apply a situational approach to workplace conflict resolution
- evaluate the benefits and drawbacks of various conflict management strategies in the context of the workplace
- explain the key challenges to personnel and human resource management in developing the flexible and skilled workforce needed in governmental and private organizations
- describe the effective philosophies of human behavior at work
- define culture within the context of the United States workplace

Leadership Certificate

This certificate focuses on the leadership and management functions essential to building world class organizations. It also includes concepts, such as customer satisfaction with emphasis on effective planning, systems design, statistical analysis, teamwork, and leadership. It includes the study of physics, statistics, ethics, and organizational psychology.

Certificate Requirements

Course Code	Course Title	Units
BUS 330	Managing Diversity in the Workplace	3
MGMT 300	Introduction to Leadership in Action	3
MGMT 304	Principles of Management	3
MGMT 308	Personnel and Human Resources Management	3
MGMT 360	Management Communication	3
Total Units:		**15**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe the underlying principles and practices of leadership.
- analyze the relationship between leading and managing.
- develop team-centered corporate cultures to enhance organizational success.
- measure the importance of operations management in relationship to designing effective control strategies.
- apply leadership skills and abilities that are effective in managing a multicultural workforce.

Management Certificate

This program is designed for those who wish to progress from entry-level positions in management and related areas. Topics include human resources, business law, management communication, and organizational behavior.

Certificate Requirements

Course Code	Course Title	Units
MGMT 304	Principles of Management	3
MGMT 308	Personnel and Human Resources Management	3
MGMT 360	Management Communication	3
MGMT 362	Techniques of Management	3
MGMT 372	Human Relations and Organizational Behavior	3
Total Units:		**15**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze practical management problems.
- apply current management philosophies to current management problems.
- integrate management principles in relationship to finance, personnel, products, services and information.
- utilize critical thinking and research skills in the evaluation of alternative solutions.

Project Management Certificate

This certificate covers the responsibilities of a project manager. It includes the knowledge needed to manage a project, control costs, and schedule resources. It also introduces the use of project management software to track project resources, tasks, and milestones. Included in the program are basic business and management theory, as well as accounting principles.

Certificate Requirements

Course Code	Course Title	Units
ACCT 101	Fundamentals of College Accounting (3)	3 - 4
or ACCT 301	Financial Accounting (4)	
BUS 300	Introduction to Business	3
MGMT 142	Project Management Techniques and Software (3)	3
or CISA 160	Project Management Techniques and Software (3)	
MGMT 304	Principles of Management	3
Total Units:		**12 - 13**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- construct a basic plan of action utilizing project management software
- compare and contrast various theories of leadership and motivation
- explain the principles of project management with regard to case studies
- demonstrate the ability to formulate a project plan, given specific scenarios
- assess the inherent advantages and shortcomings in various software packages
- interpret the basic elements of financial statements
- apply the basic functions of management, such as planning and control functions

Career Information

Organizations need employees who understand basic business and management theory and can manage a project from inception to completion. Employment outlook for the 2012-2022 period projects over 40,000 job openings nationally for Project Managers, in a variety of industries, as a "new and emerging" occupation.

Management (MGMT) Courses

MGMT 142 Project Management Techniques and Software

Same As: CISA 160

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: ENGWR 102 or 103, and ENGRD 116; OR ESLR 320 and ESLW 320; CISC 300

This introductory course covers the responsibilities of a project manager. It includes the knowledge needed to manage a project, control costs, and schedule resources. It also introduces the use of project management software to track project resources, tasks, and milestones. This course is not open to students who have taken CISA 160.

MGMT 230 Introduction to Purchasing Contracts

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

This course introduces students to purchasing contract theory and practice. Topics include Uniform Commercial Code, contractual business and legal risk mitigation, contract development for goods and services purchases, scope of work and specification development, and contract breach.

MGMT 231 Negotiation Planning

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

This course introduces students to the concept of “total cost," and covers the skills to perform cost analysis in support of supplier selection and effective supplier negotiations. It also includes participatory exercises in mock negotiations using the techniques learned in this course.

MGMT 233 Purchasing Organization Management

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

This course focuses on the management of a global or regional purchasing operation within a corporation. Concepts covered include organizational structure, hiring, success metrics, tactical and strategic purchasing focus areas, community and environmental obligations, purchasing code of ethics, purchasing policies and procedures, and eCommerce tools and applications.

MGMT 295 Independent Studies in Management

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

MGMT 299 Experimental Offering in Management

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

MGMT 300 Introduction to Leadership in Action

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course examines the underlying principles and practices of leadership and their implementation by both individuals and organizations. Topics include leadership traits, motivation, empowerment, communication, continuous process improvement, customer-focused management, and leading change.

MGMT 304 Principles of Management

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This survey course covers a multitude of management subject areas, such as planning, organization, staffing, leadership and control, team development, communication, business ethics, and global management perspectives. It is a core requirement for management majors. This course provides an overview that is helpful for selecting a specific career and/or major in the field of management.

MGMT 308 Personnel and Human Resources Management

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course is an introduction to the study and analysis of personnel and human resource management. It covers essential topics, such as civil rights, labor law, and various management theories foundational to both public and private sector organizations. This course provides an overview that is helpful for selecting a specific career and/or major in the field of business or management.

MGMT 350 Leadership in Action: Organizational Learning

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers basic knowledge of organizational learning with a focus on the practical application of the concepts of theory and prediction, creating learning environments for structured organizational cultures, and the importance of courage, faith, and justice. Emphasis is placed on the immediate application of the tools to the work place.

MGMT 360 Management Communication

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: COMM C1000 or 302 with a grade of "C" or better

Transferable: CSU

General Education: Local GE L1B

This course provides skill training in coping with communication problems in organizations. It includes the study of the communication process, the analysis of the barriers to effective oral and written communication, and the development of guidelines to improve interpersonal relations within organizations through the use of effective methods of communication.

MGMT 362 Techniques of Management

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESLW 320 with a grade of "C" or better; OR placement through assessment process.

Transferable: CSU

This course is designed for supervisors and other entry level managers as well as those entering mid-management positions. It focuses on primary management functions of planning, organizing, controlling, and leading. Related skills, such as time management, cost control, performance evaluation, motivation, communication techniques, and the social responsibility of managers, are also emphasized.

MGMT 372 Human Relations and Organizational Behavior

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course emphasizes the psychology of human relations management. It covers human interaction principles that build confidence, competence, and positive attitudes in work organizations. Topics include the basis for human behavior, perception, communication, motivation, performance improvement, group behavior, ethics, and social responsibility.

MGMT 495 Independent Studies in Management

Units: 1 - 3

Hours: 18 - 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course provides the opportunity for students and faculty to design a learning environment around an area of management study as defined in a proposal and approved by the Management department for each individual area of study.

MGMT 499 Experimental Offering in Management

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Marketing

Overview

The Marketing degree provides an opportunity for students to acquire knowledge and training for careers in sales, advertising, and marketing. The competency-based curriculum is designed to prepare students for a variety of positions and to provide basic training for advancement to management positions and for transfer to four-year universities.

Degrees and Certificates Offered

A.A. in Advertising and Sales Promotion

A.A. in Marketing

A.A. in Retail Management

Marketing Essentials Certificate

Retail Management (WAFC) Certificate

Division Dean: Kirsten Corbin

Department Chair: Heidi Bennett

Phone: (916) 484-8361

Email: ARCBUSClerk@arc.losrios.edu

Associate Degrees

A.A. in Advertising and Sales Promotion

This degree program covers the general areas of marketing. In addition it provides the knowledge and skills necessary to pursue a career in advertising. Graduates should qualify for employment opportunities with retail and general business organizations, advertising agencies, and advertising media (radio, television, magazines, newspapers and outdoor) companies.

Degree Requirements

Course Code	Course Title	Units
ACCT 101	Fundamentals of College Accounting (3)	3 - 4
or ACCT 301	Financial Accounting (4)	
ARTNM 324	Digital Design	3
ARTNM 303	Graphic Design: Typography	3
BUS 110	Business Economics (3)	3
or ECON C2002	Principles of Macroeconomics (3)	
BUS 300	Introduction to Business	3
BUS 340	Business Law	3
CISA 330	Desktop Publishing	2
CISC 300	Computer Familiarization	1
MKT 300	Principles of Marketing	3
MKT 310	Selling Professionally	3
MKT 312	Retailing	3
MKT 314	Advertising	3
GEOG 330	Introduction to Geographic Information Systems	3
A minimum of 3 units from the following:		3
CISA 331	Intermediate Desktop Publishing (2)	
BUSTEC 305	Introduction to Business Information Technology (3)	
BUSTEC 310	Introduction to Word/Information Processing (3)	
CISA 305	Beginning Word Processing (2)	
CISA 315	Introduction to Electronic Spreadsheets (2)	
CISA 340	Presentation Graphics (2)	

Course Code	Course Title	Units
Total Units:		**39 - 40**

The Advertising and Sales Promotion Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- Apply advertising principles including strategies for planning, producing and selecting the appropriate media.
- Evaluate the characteristics of various types of promotion.
- Describe the consumer decision-making process and how marketing communications influence decisions.
- Analyze consumer buyer behavior and recommend how to utilize marketing communications most effectively to meet the consumer needs.
- Analyze and evaluate practical business problems and utilize critical thinking in the determination of alternative solutions.
- Integrate the major functional areas of the business organizations including management, marketing, finance, and accounting.
- Apply document design techniques utilizing desktop publishing programs to create effective marketing materials.
- Communicate effectively verbally and in writing in various business settings.
- Plan and design promotional programs.

Career Information

Sales, copywriter, in-house communications, public relations, technical communications, media planner, media buyer.

A.A. in Marketing

The Marketing degree provides an opportunity for students to acquire knowledge and training for careers in sales, advertising, and marketing. The competency-based curriculum is designed to prepare students for a variety of positions and to provide basic training for advancement to management positions and for transfer to four-year universities.

Degree Requirements

Course Code	Course Title	Units
ACCT 101	Fundamentals of College Accounting (3)	3 - 4
or ACCT 301	Financial Accounting (4)	
BUS 110	Business Economics (3)	3
or ECON C2002	Principles of Macroeconomics (3)	
BUS 300	Introduction to Business	3
BUS 310	Business Communications	3
BUS 340	Business Law	3
CISA 305	Beginning Word Processing	2
MGMT 300	Introduction to Leadership in Action (3)	3
or MGMT 304	Principles of Management (3)	
MKT 300	Principles of Marketing	3
MKT 310	Selling Professionally	3
MKT 312	Retailing	3
MKT 314	Advertising	3
CISA 340	Presentation Graphics	2
A minimum of 7 units from the following:		7
BUS 320	Concepts in Personal Finance (3)	
BUS 330	Managing Diversity in the Workplace (3)	
CISA 320	Introduction to Database Management (1)	
CISA 330	Desktop Publishing (2)	
MGMT 308	Personnel and Human Resources Management (3)	
MGMT 372	Human Relations and Organizational Behavior (3)	
MGMT 142	Project Management Techniques and Software (3)	
or CISA 160	Project Management Techniques and Software (3)	
GEOG 330	Introduction to Geographic Information Systems (3)	
BUS 350	Small Business Management/Entrepreneurship (3)	
CISA 315	Introduction to Electronic Spreadsheets (2)	
Total Units:		**41 - 42**

The Marketing Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- Integrate the functions of the marketing mix.
- Apply principles of retailing such as business location, merchandising, inventory control, store management and vendor relationships.
- Plan, produce and select the appropriate media for advertising.
- Integrate management principles related to finance, personnel, products, services and information.
- Communicate effectively verbally and in writing in various business settings.
- Identify and examine consumer buyer behavior and evaluate which marketing communications medium will most effectively meet needs of the marketplace.
- Incorporate principles of product development, pricing, distribution strategies, promotion strategies and market research.
- Demonstrate professional sales skills by effectively interviewing and identifying the customers' needs.
- Evaluate practical business problems and utilize critical thinking in the determination of alternative solutions.
- Identify and explain the major functional areas of the business organizations including management, marketing, finance, and accounting.
- Apply the marketing mix to create and analyze various marketing strategies.

A.A. in Retail Management

The Retail Management program builds on the general business curriculum and prepares students for a leadership role in the retail industry. Depending upon the size of the retail company, retail managers are responsible for one or more parts of a retail operation including sales, marketing, buying, merchandising, operations, inventory control, human resources, and finance.

Degree Requirements

Course Code	Course Title	Units
ACCT 101	Fundamentals of College Accounting (3)	3 - 4
or ACCT 301	Financial Accounting (4)	
BUS 110	Business Economics (3)	3
or ECON C2002	Principles of Macroeconomics (3)	
BUS 300	Introduction to Business	3
BUS 310	Business Communications	3
BUS 340	Business Law (3)	3
CISA 305	Beginning Word Processing	2
CISA 315	Introduction to Electronic Spreadsheets	2

Course Code	Course Title	Units
MGMT 304	Principles of Management	3
MKT 300	Principles of Marketing	3
MKT 310	Selling Professionally	3
MKT 312	Retailing	3
MKT 314	Advertising	3
A minimum of 7 units from the following:		7
BUS 105	Business Mathematics (3)	
or BUS 330	Managing Diversity in the Workplace (3)	
or BUS 350	Small Business Management/Entrepreneurship (3)	
or BUS 220	Retailing and Merchandising for the Small Business (1)	
or BUS 210	The Business Plan (1)	
or BUS 214	Financing a Small Business (1)	
or BUS 224	Customer Service (1)	
CISA 320	Introduction to Database Management (1)	
or CISA 330	Desktop Publishing (2)	
or CISC 305	Introduction to the Internet (1)	
MGMT 308	Personnel and Human Resources Management (3)	
or MGMT 360	Management Communication (3)	
or MGMT 362	Techniques of Management (3)	
or MGMT 372	Human Relations and Organizational Behavior (3)	
Total Units:		**41 - 42**

The Retail Management Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- Demonstrate the principles of sales management including the development and analysis of sales programs, budget and expense reports.
- Apply principles of retail buying such as planning, merchandise selection and control, and building positive vendor relationships.
- Communicate effectively with consumers, staff and vendors.
- Integrate the nature of business operations, personnel, finances, regulations, marketing and decision-making.
- Analyze data related to market share, inventory control and profitability.
- Analyze practical business problems and utilize critical thinking in the determination of alternative solutions.
- Integrate principles of product development, pricing, distribution strategies, promotion strategies and market research in the decision making process.

Career Information

Buyer, department manager, store director, sales associate, account executive, merchandiser, sales manager.

Certificates of Achievement

Marketing Essentials Certificate

This certificate provides an introductory overview of the various aspects of marketing, such as target marketing, marketing strategy, advertising, professional selling, retailing, public relations, social media, and customer service. It is intended to meet the needs of employed students who wish to upgrade their marketing skills, as well as those students who are seeking entry-level marketing positions.

Certificate Requirements

Course Code	Course Title	Units
MKT 300	Principles of Marketing	3
MKT 310	Selling Professionally	3
MKT 312	Retailing	3
MKT 314	Advertising	3
MKT 330	Internet Marketing	3
Total Units:		**15**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze the philosophy of the marketing concept, and the importance of customer satisfaction.
- discover the function and elements of the marketing mix.
- incorporate strategies for planning, producing, and selecting the appropriate advertising media, and creating an advertising campaign.
- demonstrate professional selling skills, including sales presentations.
- evaluate principles of retailing, such as store location, store layout and design, pricing, human resource management, and promotional methods.

- compare and contrast various e-marketing tools, such as websites and social media.

Career Information

Marketing, selling, advertising, public relations, and marketing management positions, for profit and non-profit organizations. Also, enhancing marketing skills for the entrepreneur and small business owner.

Retail Management (WAFC) Certificate

This program provides an overview of the retail industry and the business skills needed to succeed in retail store management. It provides training for those wishing to be owners, managers, and employees of retail organizations. This certificate meets the needs of industry leaders such as the Western Association of Food Chains (WAFC).

Certificate Requirements

Course Code	Course Title	Units
ACCT 301	Financial Accounting (4)	4
BUS 100	English for the Professional (3)	3
or ENGL C1000	Academic Reading and Writing (3)	
BUS 310	Business Communications (3)	3
CISA 315	Introduction to Electronic Spreadsheets	2
MGMT 304	Principles of Management	3
MGMT 308	Personnel and Human Resources Management	3
MGMT 372	Human Relations and Organizational Behavior	3
MKT 300	Principles of Marketing	3
MKT 312	Retailing	3
Total Units:		**27**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- become a more productive retail manager, employee, or entrepreneur.
- incorporate basic marketing skills into retail operations, such as target marketing, product development, pricing, distribution decisions, promotion strategies, and marketing research.
- evaluate and develop basic management skills involving human relations, organizational behavior, and human resources management.
- demonstrate basic computer skills in word processing, presentations, and Internet searches.
- analyze and employ various written and verbal communication techniques.
- critique and recommend various retail store layouts and designs.
- recognize and confirm the importance that retailing has upon the American society and economy.

Career Information

Department manager, store director, merchandise buyer, customer service representative, or entrepreneur.

Marketing (MKT) Courses

MKT 295 Independent Studies in Marketing

Units: 1 - 3

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

MKT 299 Experimental Offering in Marketing

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

MKT 300 Principles of Marketing

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course provides a general overview of the principles of marketing. It focuses on the marketing concept and customer satisfaction. Topics include the controllable elements of the marketing mix (product, place or distribution, promotion, and price) as well as the uncontrollable elements of the marketing environment. This course also examines the topics of target marketing, market segmentation, consumer behavior, social responsibility, marketing research, and international marketing.

MKT 310 Selling Professionally

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course examines the personal selling philosophy and career opportunities in professional consumer and business selling. The development of a successful presentation strategy is examined, and techniques are illustrated for the steps of selling: approach, sales demonstration, overcoming objections, negotiation, closing, and servicing the sale. This course helps develop better selling and personal marketing techniques. Field trips may be required.

MKT 312 Retailing

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course is an introduction to the field of retailing. It covers various aspects of retailing, including store location and layout, consumer behavior, human resource management, merchandise buying, pricing, and promotion. Multichannel retailing is discussed, which includes stores, websites, catalogs, and telemarketing. Field trips may be required.

MKT 314 Advertising

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: MKT 300

Transferable: CSU

This course is an introduction to consumer advertising. It covers the advertising industry, including advertisers, agencies, media, and suppliers. Consumer behavior is also studied, to realize how advertisers attempt to understand their target audience. Advertising media are investigated in detail, including television, radio, newspapers, magazines, outdoor, Internet, social media, and direct mail. This course emphasizes group dynamics in the development of an advertising campaign. It is recommended for those interested in a career in advertising, as well as future entrepreneurs hoping to develop effective advertising for their businesses.

MKT 330 Internet Marketing

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course introduces the use of social media and other Internet technologies, with an emphasis on the theory and practice of marketing in an electronic environment. Topics include the personalization and interactivity of the Internet to build strong customer relationships. These concepts are applied to traditional brick and mortar as well as exclusively online businesses.

MKT 495 Independent Studies in Marketing

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

MKT 498 Work Experience in Marketing

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Marketing Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of marketing. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

MKT 499 Experimental Offering in Marketing

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Mathematics and Statistics

Overview

ARC offers mathematics and statistics courses to meet the educational goals of all our students, which include personal enrichment, associate degrees, certificates, and transferring to a university. Some of our courses serve a wide range of academic goals, such as *MATH 333: College Algebra for Liberal Arts*, while other courses are geared toward specific goals, such as *MATH 341: Calculus for Business and Economics*. In a data-driven culture, we help students understand how mathematics and statistics can be used in the world around us.

Our mathematics and statistics faculty come from a wide variety of backgrounds and are proud of the variety of ways we support our students. Our courses are offered in several modalities, such as face-to-face, online, and hybrid. We also have a Math Learning Center (https://arc.losrios.edu/student-resources/math-learning-center) that enables students to work independently on some courses under the guidance of a faculty member with tutorial support. Many of our courses are linked with a concurrent support course so that students can strengthen the skills needed for success in the transfer-level course. Our thriving MESA program (https://arc.losrios.edu/student-resources/mathematics-engineering-science-achievement) supports students majoring in STEM (https://arc.losrios.edu/academics/stem-homebase), especially first-generation college students. Students can find community and a variety of opportunities in their HomeBase (https://arc.losrios.edu/homebases).

Please note: In compliance with CA Legislation AB 705 and AB 1705, pre-transfer-level courses (that is, those numbered below 300, such as MATH 120) are no longer offered.

Math Course Sequence (https://arc.losrios.edu/math-and-statistics-course-sequence/math-and-statistics-course-sequence/math-and-statistics-course-sequence/math-and-statistics-course-sequence)

Degrees Offered

A.S.-T. in Mathematics 2.0

A.S. in Mathematics

A.S. in Physical Science/Mathematics

Dean: Michelle Brock

Department Chairs: Joe Caputo
Andrew Halseth

Phone: (916) 484-8215

Email: askhb-STEM@arc.losrios.edu

Associate Degrees for Transfer

A.S.-T. in Mathematics 2.0

The Associate in Science in Mathematics for Transfer (AS-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in

Mathematics at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, §66746):
• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

ADTs also require that students must earn a “C” or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
MATH 400	Calculus I (5)	5
MATH 401	Calculus II (5)	5
MATH 402	Calculus III (5)	5
MATH 410	Introduction to Linear Algebra (3)	3
MATH 420	Differential Equations (4)	4
List A:		
A minimum of 3 units from the following:		3
CISP 300	Algorithm Design/Problem Solving (3)	
CISP 360	Introduction to Structured Programming (4)	
CISP 370	Beginning Visual Basic (4)	
CISP 400	Object Oriented Programming with C++ (4)	
CISP 401	Object Oriented Programming with Java (4)	
CISP 480	Honors Introduction to Structured Programming (5)	
PHYS 410	Mechanics of Solids and Fluids (5)	
Total Units:		**25**

The Associate in Science in Mathematics 2.0 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 California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate, describe, and apply single variable calculus including various forms of derivatives and integrals, to analyze and solve problems.
- evaluate, describe, and apply multivariate calculus, linear algebra, and differential equations to analyze and solve problems.
- prepare logical arguments and use them to prove basic mathematical theorems.
- solve real-world application problems using appropriate mathematical problem-solving skills.
- apply quantitative reasoning and mathematical methods to analyze and solve problems in computer programming or calculus-based physics, demonstrating the ability to interpret and communicate results in a mathematically rigorous context.

Career Information

Mathematicians work as statisticians, analysts, computer programmers, actuaries, researchers, planners, and educators. This transfer degree is designed to meet the common lower-division requirements for most bachelor's degrees in Mathematics.

Associate Degrees

A.S. in Mathematics

This degree provides a mathematical foundation for students preparing to transfer to a four-year program in mathematics or statistics. Coursework includes a three-semester calculus series, differential equations, linear algebra, and statistics and/or symbolic logic.

Degree Requirements

Course Code	Course Title	Units
MATH 400	Calculus I	5
MATH 401	Calculus II	5
MATH 402	Calculus III	5
MATH 410	Introduction to Linear Algebra	3
MATH 420	Differential Equations	4
A minimum of 3 units from the following:		3
MATH 320	Symbolic Logic (3)	
or PHIL 324	Symbolic Logic (3)	
STAT C1000	Introduction to Statistics (4)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
Total Units:		**25**

The Mathematics Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify, formulate, and solve applied problems (using calculus and linear algebra) in verbal, numeric, graphical, and symbolic form related to science, economics, or business.
- recognize and construct valid arguments using deductive and inductive reasoning skills.
- define and utilize terminology of mathematics with emphasis in calculus, linear algebra, and either statistics, logic, or problem solving.
- calculate derivatives and integrals using a variety of defined rules and strategies of calculus, algebraic properties and trigonometric identities.

A.S. in Physical Science/Mathematics

This degree provides a broad study in the fields of physical science and mathematics. It prepares students for transfer to a four-year program in science, technology, engineering, or mathematics (STEM).

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18
ASTR C1001	Introduction to Astronomy (3)	
ASTR 310	The Solar System (3)	
ASTR 320	Stars, Galaxies, and Cosmology (3)	
ASTR 330	Introduction to Astrobiology (3)	
ASTR C1001L	Introduction to Astronomy Lab (1)	
ASTR 481	Honors Astronomy: Stars, Galaxies, and Cosmology (4)	
ASTR 495	Independent Studies in Astronomy (1 - 3)	
ASTR 499	Experimental Offering in Astronomy (0.5 - 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 310	Chemical Calculations (4)	
CHEM 338	Chemistry In Your World (3)	
CHEM 400	General Chemistry I (5)	
CHEM 401	General Chemistry II (5)	
CHEM 420	Organic Chemistry I (5)	
CHEM 421	Organic Chemistry II (5)	
CHEM 423	Organic Chemistry - Short Survey (5)	
CHEM 495	Independent Studies in Chemistry (1 - 3)	
CHEM 499	Experimental Offering in Chemistry (0.5 - 4)	
ENGR 300	Introduction to Engineering (1)	
ENGR 310	Engineering Survey Measurements (4)	
ENGR 312	Engineering Graphics (3)	
ENGR 401	Introduction to Electrical Circuits and Devices (4)	
ENGR 412	Properties of Materials (4)	
ENGR 420	Statics (3)	
ENGR 495	Independent Studies in Engineering (1 - 3)	
ENGR 499	Experimental Offering in Engineering (0.5 - 4)	
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)	
GEOG 307	Environmental Hazards and Natural Disasters (3)	
GEOG 308	Introduction to Oceanography (3)	
GEOG 309	Introduction to Oceanography Lab (1)	
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 495	Independent Studies in Geography (1 - 3)	
GEOG 499	Experimental Offering in Geography (0.5 - 4)	
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)	
GEOL 320	Global Climate Change (3)	
GEOL 325	Environmental Hazards and Natural Disasters (3)	
GEOL 330	Introduction to Oceanography (3)	
GEOL 331	Introduction to Oceanography Lab (1)	
GEOL 345	Geology of California (3)	
GEOL 392	Field Studies in Mountain Landscapes (1 - 4)	
GEOL 393	Field Studies in Coastal Landscapes (1 - 4)	

Course Code	Course Title	Units
GEOL 394	Field Studies in Volcanic Landscapes (1 - 4)	
GEOL 495	Independent Studies in Geology (1 - 3)	
GEOL 499	Experimental Offering in Geology (0.5 - 4)	
MATH 300	Introduction to Mathematical Ideas (3)	
MATH 309	Calculus Concepts for non-STEM Majors (3)	
MATH 310	Mathematical Discovery (3)	
MATH 320	Symbolic Logic (3)	
or PHIL 324	Symbolic Logic (3)	
MATH 333	College Algebra for Liberal Arts (3)	
MATH 340	Calculus for Business and Economics (3)	
MATH 341	Calculus for Business and Economics (4)	
MATH 342	Modern Business Mathematics (3)	
MATH 355	Calculus for Biology and Medicine I (4)	
MATH 356	Calculus for Biology and Medicine II (4)	
MATH 372	College Algebra for Calculus (4)	
MATH 373	Trigonometry for Calculus (4)	
MATH 375	Pre-Calculus (6)	
MATH 383	Preparation for Calculus (4)	
MATH 400	Calculus I (5)	
MATH 401	Calculus II (5)	
MATH 402	Calculus III (5)	
MATH 410	Introduction to Linear Algebra (3)	
MATH 420	Differential Equations (4)	
MATH 480	Honors Seminar in Mathematics (2)	
MATH 495	Independent Studies in Mathematics (1 - 3)	
MATH 499	Experimental Offering in Mathematics (0.5 - 4)	
PHYS 310	Conceptual Physics (3)	
PHYS 311	Basic Physics (3)	
PHYS 312	Conceptual Physics Laboratory (1)	
PHYS 350	General Physics (4)	
PHYS 360	General Physics (4)	
PHYS 410	Mechanics of Solids and Fluids (5)	
PHYS 421	Electricity and Magnetism (4)	
PHYS 431	Heat, Waves, Light and Modern Physics (4)	
PHYS 495	Independent Studies in Physics (1 - 3)	
PHYS 499	Experimental Offering in Physics (0.5 - 4)	
STAT C1000	Introduction to Statistics (4)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
or ECON 310	Statistics for Business and Economics (3)	
or PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
STAT 309	Introduction to Probability and Statistics for STEM (4)	
STAT 495	Independent Studies in Statistics (1 - 3)	
STAT 499	Experimental Offering in Statistics (0.5 - 4)	
Total Units:		**18**

The Physical Science/Mathematics Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- recognize and correctly use the terminology of math, statistics, and/or science.
- analyze and interpret data, charts, and graphs using quantitative and qualitative methods.
- recognize and construct valid arguments using deductive and inductive reasoning.
- evaluate new and accepted ideas about the natural universe using testable methodology.

Mathematics (MATH) Courses

MATH 300 Introduction to Mathematical Ideas

Units: 3

Hours: 54 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU; UC

General Education: Local GE L2; Cal-GETC Area 2

This course makes fundamental concepts and processes more meaningful for non-mathematics majors through a study of several mathematical topics, including the history of mathematics, numeration systems, logic, geometry, algebraic modeling, combinatorics, probability, statistics, sets, matrices, consumer mathematics, equations and inequalities, functions and graphs, problem solving, graph theory, voting and apportionment, and number theory. It is not recommended for students entering elementary school teaching or business administration majors.

MATH 309 Calculus Concepts for non-STEM Majors

Units: 3

Hours: 54 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU; UC (UC credit limitation: MATH 309, MATH 340, MATH 341, MATH 355 and MATH 400 combined: maximum credit, 1 course)

General Education: Local GE L2; Cal-GETC Area 2

This course presents the basic concepts and applications of calculus without the technicalities of engineering-level courses, providing a perspective on the foundational tools of our high-tech society. Topics include finding rates of change, aggregating various quantities, and basic applications in finding slopes, speeds, areas, volumes, and optimal values.

MATH 310 Mathematical Discovery

Units: 3

Hours: 54 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU; UC

General Education: Local GE L2

This course explores mathematical patterns and relations as well as the formulation and proof of conjectures. Topics from number theory, probability and statistics, and geometry are investigated. This course is recommended for students interested in a degree in education.

MATH 320 Symbolic Logic

Same As: PHIL 324

Units: 3

Hours: 54 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU; UC

General Education: Local GE L1B; Local GE L2

C-ID: C-ID PHIL 210

This course is an introduction to symbolic logic. It includes a study of the logic of sentences (propositional logic) and the logic of classes and relations (predicate logic), together with an introduction to the nature of deductive systems. This course is not open to students who have completed PHIL 324.

MATH 333 College Algebra for Liberal Arts

Units: 3

Hours: 54 hours LEC

Prerequisite: Through the Los Rios Placement Process or High School Algebra 2 or Integrated Math 3 or Intermediate Algebra.

Enrollment Limitation: Due to California Assembly Bill 1705, this course is not available to students in majors that require Calculus.

Transferable: CSU; UC (UC credit limitation: All College Algebra and Pre-Calculus courses limited to a single course with a maximum of 5 semester / 7.5 quarter units)

General Education: Local GE L2; Cal-GETC Area 2

This is a transfer-level college algebra course for majors in the Liberal Arts. Topics include linear, absolute value, polynomial, rational, radical, exponential, and logarithmic functions; solving equations involving these functions; graphing these functions using transformations; solving linear and nonlinear inequalities; systems of equations; complex numbers; and inverse functions.

MATH 340 Calculus for Business and Economics

Units: 3

Hours: 54 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU; UC (UC credit limitation: MATH 309, MATH 340, MATH 341, MATH 355 and MATH 400 combined: maximum credit, 1 course)

General Education: Local GE L2; Cal-GETC Area 2

C-ID: C-ID MATH 140

This course introduces how differential calculus and integral calculus are used in the fields of business, economics, social science, and biological science. Topics include finding limits, applying various rules to find derivatives of polynomial, rational, exponential, and logarithmic functions, as well as using derivatives to analyze marginal cost, revenue, and profit. It is not recommended for mathematics and physical science majors.

MATH 341 Calculus for Business and Economics

Units: 4

Hours: 72 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU; UC (UC credit limitation: MATH 309, MATH 340, MATH 341, MATH 355 and MATH 400 combined: maximum credit, 1 course)

General Education: Local GE L2; Cal-GETC Area 2

This course is designed around applications of sets, functions, limits, analytic geometry, and the differential and integral calculus in an economic and business context. This course is intended for business students; it is not recommended for mathematics and physical science majors. This course is not open to students who have completed Math 340.

MATH 342 Modern Business Mathematics

Units: 3

Hours: 54 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU; UC

General Education: Local GE L2; Cal-GETC Area 2

This course is designed around applications of mathematics in economic and business contexts. Specific topics include functions and related business formulas, tables and graphs, finance (interest and exponential models in economics), rates of change, applications and optimization, and linear programming.

MATH 355 Calculus for Biology and Medicine I

Units: 4

Hours: 72 hours LEC

Prerequisite: MATH 373 or 375 with a grade of "C" or better, or placement through the assessment process.

Transferable: CSU; UC (UC credit limitation: MATH 309, MATH 340, MATH 341, MATH 355 and MATH 400 combined: maximum credit, 1 course)

General Education: Local GE L2; Cal-GETC 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

Units: 4

Hours: 72 hours LEC

Prerequisite: MATH 355 with a grade of "C" or better

Transferable: CSU; UC (UC credit limitation: MATH 356 and MATH 401 combined: maximum credit, 1 course)

General Education: Local GE L2; Cal-GETC 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 372 College Algebra for Calculus

Units: 4

Hours: 72 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU; UC (UC credit limitation: All College Algebra and Pre-Calculus courses limited to a single course with a maximum of 5 semester / 7.5 quarter units)

General Education: Local GE L2; Cal-GETC Area 2

This course provides a rigorous treatment of college-level algebra and its applications, with a particular focus on preparing students for the calculus sequence for Science, Technology, Engineering, and Mathematics (STEM) majors. Topics include polynomial, rational, radical, exponential, absolute value, and logarithmic functions, graphs, and equations; systems of equations; the theory of polynomial equations; analytic geometry including conics; and an introduction to sequences and series. Emphasis is given to analytical reasoning and problem-solving.
This course may be taken concurrently with MATH 373, Trigonometry for Calculus. Completion of both MATH 372 AND MATH 373 with grades of "C" or better meets the prerequisite for MATH 400, Calculus I.

MATH 373 Trigonometry for Calculus

Units: 4

Hours: 72 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU

General Education: Local GE L2

This course provides a rigorous treatment of trigonometry and its applications, with a particular focus on preparing students for the calculus sequence for science, technology, engineering, and mathematics (STEM) majors. It emphasizes the study of trigonometric functions from numerical, graphical, and algebraic descriptions. Topics include functions and their graphs, transformations of functions, geometric properties of circles and triangles, degree and radian measurements of angles, right triangle trigonometry, reference angle trigonometry, unit circle trigonometry, graphs and transformations of trigonometric functions, verifying and applying trigonometric identities, inverse trigonometric functions, solving trigonometric equations, solving triangles using the Law of Sines and the Law of Cosines, vectors, the polar coordinate system, and roots and powers of complex numbers including De Moivre's Theorem. This course may be taken concurrently with MATH 372, College Algebra for Calculus. Completion of both MATH 372 AND MATH 373 with grades of "C" or better meets the prerequisite for MATH 400, Calculus I.

MATH 375 Pre-Calculus

Units: 6

Hours: 108 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU; UC (UC credit limitation: All College Algebra and Pre-Calculus courses limited to a single course with a maximum of 5 semester / 7.5 quarter units)

General Education: Local GE L2; Cal-GETC Area 2

This course provides a rigorous treatment of the foundational mathematical concepts and skills that will prepare students for the calculus sequence for science, technology, engineering, and mathematics (STEM) majors. Topics include polynomial, absolute value, rational, radical, exponential, and logarithmic functions, with graphing and applications; trigonometric functions and their inverses, including graphs, proving identities, trigonometric equations, and solving triangles; systems of equations and inequalities; analytic geometry and conics; vectors and polar coordinates; and an introduction to sequences and series. It emphasizes analytical reasoning and problem-solving.

MATH 383 Preparation for Calculus

Units: 4

Hours: 72 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU; UC (UC credit limitation: All College Algebra and Pre-Calculus courses limited to a single course with a maximum of 5 semester / 7.5 quarter units)

General Education: Local GE L2; Cal-GETC Area 2

This course is intended to prepare students for success in Calculus. It focuses on essential algebraic and trigonometric skills that are necessary for success in a first-semester calculus course. Topics include polynomial, absolute value, rational, radical, exponential, and logarithmic functions, with graphing and applications; trigonometric functions and their inverses, including graphs, proving identities, trigonometric equations, and solving triangles.

MATH 400 Calculus I

Units: 5

Hours: 90 hours LEC

Prerequisite: MATH 370 (Pre-Calculus Mathematics), OR MATH 375 (Pre-Calculus Mathematics), OR MATH 372 (College Algebra for Calculus) AND MATH 373 (Trigonometry for Calculus) with grades of "C" or better, or placement through the assessment process.

Transferable: CSU; UC (UC credit limitation: MATH 309, MATH 340, MATH 341, MATH 355 and MATH 400 combined: maximum credit, 1 course)

General Education: Local GE L2; Cal-GETC Area 2

C-ID: C-ID MATH 210; Part of C-ID MATH 900S

This course is an introduction to differential and integral calculus. It covers limits, continuity, differentiation and integration of algebraic, trigonometric, logarithmic, exponential, and other transcendental functions. Some applications are also covered.

MATH 401 Calculus II

Units: 5

Hours: 90 hours LEC

Prerequisite: MATH 400 with a grade of "C" or better

Transferable: CSU; UC (UC credit limitation: MATH 356 and MATH 401 combined: maximum credit, 1 course)

General Education: Local GE L2; Cal-GETC Area 2

C-ID: C-ID MATH 220; Part of C-ID MATH 900S

This course is a continuation of MATH 400. It builds on the methods of integration learned in MATH 400, and also covers improper integrals, sequences, infinite series, power series, polar coordinates, and parametric and polar equations. Many calculus applications are also included.

MATH 402 Calculus III

Units: 5

Hours: 90 hours LEC

Prerequisite: MATH 401 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L2; Cal-GETC Area 2

C-ID: C-ID MATH 230

This course is a continuation of MATH 401. It extends the concepts of limits, derivatives, and integrals to vector-valued functions and multivariate functions. The topics include multivariate functions, partial derivatives, extrema of multivariate functions, iterated integrals, development of vector calculus, line integrals, three-dimensional analytic geometry, and Green's, Gauss' (Divergence), and Stokes' Theorems. Many applications of calculus are also covered.

MATH 410 Introduction to Linear Algebra

Units: 3

Hours: 54 hours LEC

Prerequisite: MATH 401 with a grade of "C" or better

Advisory: MATH 402

Transferable: CSU; UC

General Education: Local GE L2; Cal-GETC Area 2

C-ID: C-ID MATH 250; Part of C-ID MATH 910S

This course provides an introduction to linear algebra including matrices, determinants, vector spaces, inner product spaces, linear transformations, and eigenvectors. It is intended for majors in mathematics, engineering, economics, science, and related fields. This course emphasizes cogent reasoning, mathematical proof, and problem solving.

MATH 420 Differential Equations

Units: 4

Hours: 72 hours LEC

Prerequisite: MATH 401 with a grade of "C" or better

Advisory: MATH 402

Transferable: CSU; UC

General Education: Local GE L2; Cal-GETC Area 2

C-ID: C-ID MATH 240; Part of C-ID MATH 910S

This course is a study of ordinary differential equations, including linear equations, systems of equations, equations with variable coefficients, existence and uniqueness of solutions, series solutions, singular points, transform methods, boundary value problems, numerical methods, and applications.

MATH 480 Honors Seminar in Mathematics

Units: 2

Hours: 36 hours LEC

Prerequisite: MATH 375 (Pre-Calculus), OR MATH 383 (Preparation for Calculus), OR both MATH 372 (College Algebra for Calculus) AND MATH 373 (Trigonometry for Calculus) with grades of "C" or better, or through the Los Rios Placement Process.

Transferable: CSU

This course offers students the opportunity to explore mathematical themes in depth through research, discussion, and presentation. Each offering is organized around a central theme such as Rigor in Mathematics (introduction to mathematical proof), Mathematics and Technology, Honors Problem Solving in Higher Math Courses, or Mathematics in Nature. Themes are selected by the instructor and influenced by student interest. Emphasis is placed on critical analysis, clear communication of mathematical ideas, and the development of independent inquiry skills.

MATH 495 Independent Studies in Mathematics

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

MATH 499 Experimental Offering in Mathematics

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Mathematics Support (MATHS) Courses

MATHS 33 Support for College Algebra for Liberal Arts

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Corequisite: MATH 333; Concurrent enrollment in MATH 333.

This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in MATH 333 (College Algebra for Liberal Arts). The content of this course is designed to provide arithmetic and algebraic support to students as they learn related concepts in their corequisite course. Topics and homework assignments are often connected to assignments in the corequisite course. This course is graded Pass/No Pass.

MATHS 45 Support for Business Mathematics

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Corequisite: Concurrent enrollment in MATH 341 or MATH 342

This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in Calculus for Business and Economics (MATH 341) and Modern Business Mathematics (MATH 342). The content of this course is designed to provide arithmetic and algebraic support to students as they learn related concepts in their corequisite course. Topics and homework assignments are often connected to students' assignments in the corequisite course. This course is graded Pass/No Pass.

MATHS 60 Support for Calculus I

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Corequisite: Concurrent enrollment in MATH 400 (Calculus I)

This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in MATH 400. The content of this course is designed to provide arithmetic, algebra, geometry, trigonometry, and learning skills support to students as they learn concepts in their Calculus I course. Topics and homework assignments are often connected to assignments in the Calculus I course. This course is graded Pass/No Pass.

MATHS 61 Support for Calculus II

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Corequisite: Concurrent enrollment in MATH 401 (Calculus II)

This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in MATH 401. The content of this course is designed to provide arithmetic, algebra, geometry, trigonometry, and learning skills support to students as they learn concepts in their Calculus II course. Topics and homework assignments are often connected to assignments in the Calculus II course. This course is graded Pass/No Pass.

MATHS 65 Support for Calculus for Biology and Medicine I

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Corequisite: Concurrent enrollment in MATH 355 (Calculus for Biology and Medicine I)

This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in MATH 355. The content of this course is designed to provide arithmetic, algebra, geometry, trigonometry, and learning skills support to students as they learn concepts in their Calculus for Biology and Medicine I course. Topics and homework assignments are often connected to assignments in MATH 355. This course is graded Pass/No Pass.

MATHS 66 Support for Calculus for Biology and Medicine II

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Corequisite: Concurrent enrollment in MATH 356 (Calculus for Biology and Medicine II)

This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in MATH 356. The content of this course is designed to provide arithmetic, algebra, geometry, trigonometry, and learning skills support to students as they learn concepts in their Calculus for Biology and Medicine II course. Topics and homework assignments are often connected to assignments in MATH 356. This course is graded Pass/No Pass.

MATHS 72 Support for College Algebra for Calculus

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Corequisite: Concurrent enrollment in MATH 372

This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in MATH 372 (College Algebra for Calculus). The content of this course is designed to provide arithmetic and algebraic support to students as they learn related concepts in their corequisite course. Topics and homework assignments are often connected to assignments in the corequisite course. This course is graded Pass/No Pass.

MATHS 73 Support Course for Trigonometry for Calculus

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Corequisite: Concurrent enrollment in MATH 373

This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in Trigonometry for Calculus (MATH 373). The course content is designed to provide arithmetic, algebra, geometry and learning skills support to students as they learn related concepts in their corequisite course. Topics and homework assignments are often connected to students' assignments in the corequisite course. This course is graded Pass/No Pass.

MATHS 75 Support for Pre-Calculus

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Corequisite: Concurrent enrollment in MATH 375

This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in MATH 375 (Pre-Calculus). The content of this course is designed to provide arithmetic, algebra, geometry, and learning skills support to students as they learn related concepts in their corequisite course. Topics and homework assignments are often connected to assignments in the corequisite course. This course is graded Pass/No Pass.

MATHS 83 Support for Preparation for Calculus

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Corequisite: Concurrent enrollment in MATH 383 (Preparation for Calculus)

This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in MATH 383. The content of this course is designed to provide arithmetic, algebra, geometry, trigonometry, and learning skills support to students as they learn concepts in their Preparation for Calculus course. Topics and homework assignments are often connected to assignments in MATH 383. This course is graded Pass/No Pass.

MATHS 95 Support for Introduction to Mathematical Ideas

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Corequisite: Concurrent enrollment in MATH 300

This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in MATH 300 (Introduction to Mathematical Ideas).
The content of this course is designed to provide arithmetic and algebraic support to students as they learn related concepts in their corequisite course. Topics and homework assignments are often connected to assignments in the corequisite course. This course is graded Pass/No Pass.

MATHS 299 Experimental Offering in Mathematics Support

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

MATHS 499 Experimental Offering in Mathematics Support

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Statistics (STAT) Courses

STAT 10 Support for Introduction to Statistics

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Corequisite: Concurrent enrollment in STAT C1000

This course provides intensive instruction and practice in the core mathematical skills, competencies, and concepts necessary for success in STAT C1000 (Introduction to Statistics). The content of this course is designed to help students develop effective learning strategies, and to provide arithmetic, algebraic, and geometric support as they learn concepts in the statistics course. Topics and homework assignments are often connected to assignments in the statistics course. Support using the required statistical technology package is also included. This course is graded Pass/No Pass.

STAT C1000 Introduction to Statistics

Units: 4

Hours: 72 hours LEC

Prerequisite: Placement as determined by the college's multiple measures assessment process or completion of a course taught at or above the level of intermediate algebra.

Transferable: CSU; UC (UC credit limitation: ECON 310, PSYC 330, STAT C1000/300, STAT C1000H/480, and STAT 305 combined: maximum credit, 1 course)

General Education: Local GE L2; Cal-GETC Area 2

C-ID: C-ID MATH 110

This course was formerly known as STAT 300 Introduction to Probability and Statistics.

This course is an introduction to statistical thinking and processes, including methods and concepts for discovery and decision-making using data. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-squared, and t-tests; and application of technology for statistical analysis including the interpretation of the relevance of the statistical findings. Students apply methods and processes to applications using data from a broad range of disciplines. Statistical analysis using a statistical software package such as, but not limited to, StatCrunch, R, SAS, SPSS, EXCEL, Minitab, Desmos, and/or graphing calculators is required. This course was formerly known as STAT 300 and is not open to students who have successfully completed STAT 300, 480, or C1000H.

STAT 309 Introduction to Probability and Statistics for STEM

Units: 4

Hours: 72 hours LEC

Prerequisite: MATH 400 with a grade of "C" or better, or placement through the assessment process.

Transferable: CSU; UC

General Education: Local GE L2; Cal-GETC Area 2

This course is a calculus-based introduction to Probability and Statistics for STEM majors, or for those seeking a more advanced understanding of statistics. Topics include sample spaces, combinatorics, random variables, probability, density and distribution functions, discrete probability distributions, including binomial, uniform Poisson, exponential, normal, joint probability discrete distributions, expectation, variance, and covariance and the central limit theorem. This course also covers topics in statistical inference which include confidence intervals, hypothesis testing, sample size determinations, regression, and correlation.

Statistical analysis using a statistical software package is required.

STAT C1000H Introduction to Statistics - Honors

Units: 4

Hours: 72 hours LEC

Prerequisite: Placement as determined by the college's multiple measures assessment process or completion of a course taught at or above the level of intermediate algebra.

Transferable: CSU; UC (UC credit limitation: ECON 310, PSYC 330, STAT C1000/300, STAT C1000H/480, and STAT 305 combined: maximum credit, 1 course)

General Education: Local GE L2; Cal-GETC Area 2

C-ID: C-ID MATH 110

This course was formerly known as STAT 480 Introduction to Probability and Statistics - Honors.

This course is an introduction to statistical thinking and processes, including methods and concepts for discovery and decision-making using data. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-squared, and t-tests; and application of technology for statistical analysis including the interpretation of the relevance of the statistical findings. Students apply methods and processes to applications using data from a broad range of disciplines. This is an honors course. As an honors course, it uses an intensive instructional methodology designed to challenge motivated students, and includes a capstone project. Statistical analysis using a statistical software package such as, but not limited to, StatCrunch, R, SAS, SPSS, EXCEL, Minitab, Desmos, and/or graphing calculators is required. This course was formerly known as STAT 480 and is not open to students who have successfully completed STAT C1000, 300, or 480.

STAT 495 Independent Studies in Statistics

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

STAT 499 Experimental Offering in Statistics

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Math and Statistics Course Sequence

Statistics and Liberal Arts Math (SLAM)

Statistics Pathway

Choose *one* of the following options:

- **STAT C1000 (formerly STAT 300): Introduction to Statistics** (4 units)
- **STAT C1000 (formerly STAT 300): Introduction to Statistics** (4 units) and **STAT 10: Support for Introduction to Statistics** (2 units) – *must be taken concurrently*
- **STAT C1000H (formerly STAT 480): Introduction to Statistics - Honors** (4 units)

Liberal Arts Math Pathway

Note: MATH 333 is not open to students whose majors require Calculus or Business Math.

Choose *one* of the following options:

- **MATH 300: Introduction to Mathematical Ideas** (3 units)
- **MATH 300: Introduction to Mathematical Ideas** (3 units) and **MATHS 95: Support for Introduction to Mathematical Ideas** (2 units) – *must be taken concurrently*
- **MATH 320: Symbolic Logic** (3 units)
- **MATH 333: College Algebra for Liberal Arts** (3 units)
- **MATH 333: College Algebra for Liberal Arts** (3 units) and **MATHS 33: Support for College Algebra for Liberal Arts** (2 units) – *must be taken concurrently*

Education

Education Pathway

Take the following course:

- **MATH 310: Mathematical Discovery** (3 units)

Business (BusMath)

Business/Other Pathways

Choose *one* of the following options:

- **MATH 341: Calculus for Business and Economics** (4 units)
- **MATH 341: Calculus for Business and Economics** (4 units) and **MATHS 45: Support for Business Mathematics** (2 units) – *must be taken concurrently*
- **MATH 342: Modern Business Mathematics** (3 units)
- **MATH 342: Modern Business Mathematics** and **MATHS 45: Support for Business Mathematics** (2 units) – *must be taken concurrently*

Science, Technology, Engineering, and Math (STEM)

Calculus Pathway

STEM 5 Level

This option is for students who have passed Pre-Calculus, Integrated Math 4 (IM4), Trigonometry, or the equivalent with a "C-" or better. Choose *one* of the following options:

- **MATH 400: Calculus I** (5 units)
- **MATH 400: Calculus I** (5 units)and **MATHS 60: Support for Calculus I** (3 units) – *must be taken concurrently*

STEM 3 Level

This option is for students who have passed Intermediate Algebra, Integrated Math 3 (IM3), or the equivalent with a "C-" or better. You may take Calculus with support or one (1) course before Calculus.

- Straight to Calculus:
  - **MATH 400: Calculus I** (5 units)and **MATHS 60: Support for Calculus I** (3 units) – *must be taken concurrently*
- Prep courses before Calculus:
  - One of the following:
    - **MATH 375: Pre-Calculus** (6 units)
    - **MATH 375: Pre-Calculus** (6 units) and **MATHS 75: Support for Pre-Calculus** (2 units) – *must be taken concurrently*
    - **MATH 383: Preparation for Calculus** (4 units)
    - **MATH 383: Preparation for Calculus** (4 units) and **MATHS 83: Support for Preparation for Calculus** (2 units) – *must be taken concurrently*
  - Then:
    - **MATH 400: Calculus I** (5 units)and **MATHS 60: Support for Calculus I** (3 units) – *must be taken concurrently*

STEM 1 Level

This option is for students who have not passed Intermediate Algebra, Integrated Math 3 (IM3), or the equivalent with a "C-" or better. You may take Calculus with support or up to two (2) courses before Calculus.

- Straight to Calculus:
  - **MATH 400: Calculus I** (5 units)and **MATHS 60: Support for Calculus I** (3 units) – *must be taken concurrently*
- One prep course before Calculus:
  - One of the following:
    - **MATH 375: Pre-Calculus** (6 units)
    - **MATH 375: Pre-Calculus** (6 units) and **MATHS 75: Support for Pre-Calculus** (2 units) – *must be taken concurrently*
    - **MATH 383: Preparation for Calculus** (4 units)
    - **MATH 383: Preparation for Calculus** (4 units) and **MATHS 83: Support for Preparation for Calculus** (2 units) – *must be taken concurrently*
  - Then:
    - **MATH 400: Calculus I** (5 units)and **MATHS 60: Support for Calculus I** (3 units) – *must be taken concurrently*

- Two prep courses before Calculus:
  - Two of the following:
    - **MATH 372: College Algebra for Calculus** (4 units)
    - **MATH 372: College Algebra for Calculus** (4 units) and **MATHS 72: Support for College Algebra for Calculus** (2 units) –
    - **MATH 373: Trigonometry for Calculus** (4 units)
    - **MATH 373: Trigonometry for Calculus** (4 units) and **MATHS 73: Support for Trigonometry for Calculus** (2 units) – *must be taken concurrently*
  - Then:
    - **MATH 400: Calculus I** (5 units)and **MATHS 60: Support for Calculus I** (3 units) – *must be taken concurrently*

Sequence of Final Four Courses in Calculus Pathway

1. **MATH 401: Calculus II** (5 units)
2. **MATH 402: Calculus III** (5 units)
3. **MATH 410: Introduction to Linear Algebra** (3 units)
4. **MATH 420: Differential Equations** (4 units)

Biology and Medicine Calculus Pathway

STEM 5 Level

This option is for students who have passed Pre-Calculus, Integrated Math 4 (IM4), Trigonometry, or the equivalent with a "C-" or better. Choose *one* of the following options:

- **MATH 355: Calculus for Biology and Medicine I** (4 units)
- **MATH 355: Calculus for Biology and Medicine I** (4 units) and **MATHS 65: Support for Calculus for Biology and Medicine I** (2 units) – *must be taken concurrently*

STEM 3 Level

This option is for students who have passed Intermediate Algebra, Integrated Math 3 (IM3), or the equivalent with a "C-" or better. You may take Calculus with support or one (1) course before Calculus.

- Straight to Calculus:
  - **MATH 355: Calculus for Biology and Medicine I** (4 units) and **MATHS 65: Support for Calculus for Biology and Medicine I** (2 units) – *must be taken concurrently*
- Prep courses before Calculus:
  - One of the following:
    - **MATH 375: Pre-Calculus** (6 units)
    - **MATH 375: Pre-Calculus** (6 units) and **MATHS 75: Support for Pre-Calculus** (2 units) – *must be taken concurrently*
    - **MATH 383: Preparation for Calculus** (4 units)
    - **MATH 383: Preparation for Calculus** (4 units) and **MATHS 83: Support for Preparation for Calculus** (2 units) – *must be taken concurrently*
  - Then:
    - **MATH 355: Calculus for Biology and Medicine I** (4 units) and **MATHS 65: Support for Calculus for Biology and Medicine I** (2 units) – *must be taken concurrently*

STEM 1 Level

This option is for students who have not passed Intermediate Algebra, Integrated Math 3 (IM3), or the equivalent with a "C-" or better. You may take Calculus with support or up to two (2) courses before Calculus.

- Straight to Calculus:
  - **MATH 355: Calculus for Biology and Medicine I** (4 units) and **MATHS 65: Support for Calculus for Biology and Medicine I** (2 units) – *must be taken concurrently*

- One prep course before Calculus:
  - One of the following:
    - **MATH 375: Pre-Calculus** (6 units)
    - **MATH 375: Pre-Calculus** (6 units) and **MATHS 75: Support for Pre-Calculus** (2 units) – *must be taken concurrently*
    - **MATH 383: Preparation for Calculus** (4 units)
    - **MATH 383: Preparation for Calculus** (4 units) and **MATHS 83: Support for Preparation for Calculus** (2 units) – *must be taken concurrently*
  - Then:
    - **MATH 355: Calculus for Biology and Medicine I** (4 units) and **MATHS 65: Support for Calculus for Biology and Medicine I** (2 units) – *must be taken concurrently*

- Two prep courses before Calculus:
  - Two of the following:
    - **MATH 372: College Algebra for Calculus** (4 units)
    - **MATH 372: College Algebra for Calculus** (4 units) and **MATHS 72: Support for College Algebra for Calculus** (2 units) –
    - **MATH 373: Trigonometry for Calculus** (4 units)
    - **MATH 373: Trigonometry for Calculus** (4 units) and **MATHS 73: Support for Trigonometry for Calculus** (2 units) – *must be taken concurrently*
  - Then:
    - **MATH 355: Calculus for Biology and Medicine I** (4 units) and **MATHS 65: Support for Calculus for Biology and Medicine I** (2 units) – *must be taken concurrently*

Sequence of Next Courses

1. **MATH 356: Calculus for Biology and Medicine II** (4 units)

Note: MATH 355 and 356 might not be accepted by all biology/medicine programs.

Music

Overview

The Music Degree program is designed to provide students with a rich foundation and core curriculum for the development of the professional musician through music theory, history, performance, and production. Associate of Arts degrees are offered in both traditional and jazz studies with an emphasis in either instrumental or vocal performance.

The Commercial Music program is designed to serve as a springboard for a career in the music business. The program offers Associate of Arts degrees and certificates in audio recording or music business. Students study with industry professionals and learn in ARC's state-of-the-art equipped recording studios and facilities.

Degrees and Certificates Offered

A.A.-T. in Music

A.A. in Commercial Music: Business

A.A. in Commercial Music: Recording

A.A. in Jazz Studies

A.A. in Music

Commercial Music: Business Certificate

Commercial Music: Recording Certificate

Digital Audio Production Certificate

Music Management and Promotion Certificate

Music Instructional Assistant Certificate

Studio Jazz/Pop Voice Instructor Certificate

Studio Music Instructor Certificate

Studio Voice Instructor Certificate

Dean: Corinne Arrieta Katzorke

Department Chair: Dyne Eifertsen
Steven Thompson

Phone: (916) 484-8570

Email: AskHB-Arts@arc.losrios.edu

Associate Degrees for Transfer

A.A.-T. in Music

The Associate in Arts in Music for Transfer (AA-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Music at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Completion of this degree provides a foundation in music. Program offerings include coursework in music theory and aural skills, applied composition, instrumental and vocal instruction, and ensemble performance.

Students must complete the following Associate Degree for Transfer (ADT) requirements (Pursuant to SB1440, Â§66746):
â€¢ 60 semester or 90 quarter CSU-transferable units
â€¢ the California General Education Transfer Curriculum (Cal-GETC) pattern
â€¢ a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district
â€¢ obtain a minimum grade point average (GPA) of 2.0

ADTs also require that students must earn a â€œCâ€ or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
MUFHL 400	Music Theory and Musicianship I	4
MUFHL 401	Music Theory and Musicianship II	4
MUFHL 410	Music Theory and Musicianship III	4
A minimum of 4 units from the following:		4[1]
MUIVI 411	Applied Music Practicum (1)	
MUIVI 420	Applied Music (1)	
MUIVI 421	Applied Music II (1)	
MUIVI 422	Applied Music III (1)	
MUIVI 423	Applied Music IV (1)	
MUIVI 425	Applied Music - Jazz I (1)	
MUIVI 426	Applied Music - Jazz II (1)	
List A:		
A minimum of 3 units from the following:		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)	
MUFHL 411	Music Theory and Musicianship IV (4)	
MUIVI 340	Beginning Piano (2)	
MUIVI 341	Piano II (2)	
MUIVI 350	Piano III (2)	
MUSM 334	Introduction to Musical Instrument Digital Interface (MIDI) (2)	
Subtotal Units:		**19**

Guitarists/Pianists/Composers

Course Code	Course Title	Units
A minimum of 8 units from the following:		8
MUP 310	Orchestra (2)	
MUP 311	Advanced Orchestra (1 - 2)	
MUP 320	Jazz Band (2)	
MUP 321	Advanced Jazz Band (1 - 2)	
MUP 323	Latin Jazz Ensemble (2)	
MUP 324	Advanced Latin Jazz Ensemble (1 - 2)	
MUP 330	Concert Band (2)	
MUP 331	Advanced Concert Band (1 - 2)	
MUP 340	Symphonic Band (2)	
MUP 341	Advanced Symphonic Band (1 - 2)	
MUP 350	Concert Choir I (2)	
MUP 352	Advanced Concert Choir (2)	
MUP 360	Chamber Singers (2)	
MUP 361	Advanced Chamber Singers (2)	
MUP 400	Vocal Jazz Ensemble (2)	
MUP 401	Advanced Vocal Jazz Ensemble (1 - 2)	
MUP 420	Special Ensemble Participation (1 - 2)	
Guitarists/Pianists/Composers Units:		8

Course Code	Course Title	Units
Total Units:		**27**

Instrumentalists

Course Code	Course Title	Units
A minimum of 8 units from the following:		8
MUP 310	Orchestra (2)	
MUP 311	Advanced Orchestra (1 - 2)	
MUP 320	Jazz Band (2)	
MUP 321	Advanced Jazz Band (1 - 2)	
MUP 323	Latin Jazz Ensemble (2)	
MUP 324	Advanced Latin Jazz Ensemble (1 - 2)	
MUP 330	Concert Band (2)	
MUP 331	Advanced Concert Band (1 - 2)	
MUP 340	Symphonic Band (2)	
MUP 341	Advanced Symphonic Band (1 - 2)	
MUP 420	Special Ensemble Participation (1 - 2)	
Instrumentalists Units:		8
Total Units:		**27**

Vocalists

Course Code	Course Title	Units
A minimum of 8 units from the following:		8
MUP 323	Latin Jazz Ensemble (2)	
MUP 324	Advanced Latin Jazz Ensemble (1 - 2)	
MUP 350	Concert Choir I (2)	
MUP 352	Advanced Concert Choir (2)	
MUP 360	Chamber Singers (2)	
MUP 361	Advanced Chamber Singers (2)	
MUP 400	Vocal Jazz Ensemble (2)	
MUP 401	Advanced Vocal Jazz Ensemble (1 - 2)	
MUP 420	Special Ensemble Participation (1 - 2)	
Vocalists Units:		8
Total Units:		**27**

[1]MUIVI 411 is repeatable four times for credit for a maximum of four units.

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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze musical scores and compositions.
- critique personal music performances and those of other musicians.
- analyze and perform the elements of music (rhythm, melody, harmony, and form).
- create derivative or original music at a level appropriate to the area of specialization.

Career Information

Individuals with four-year degrees in music may be placed in the K-12 educational field as well as performers in professional music ensembles, directors for religious and community music groups, private music studio instructors, composers for media and publishing, music therapists, and administrative staff for music organizations. Advanced degrees in music may lead to careers as educators at the college or university level, performers, music directors, and music editors and journalists.

Associate Degrees

A.A. in Commercial Music: Business

This degree explores the inner workings of the music industry in areas such as publishing, entertainment, distribution, and music law. Course work addresses industry-specific issues such as copyright, record contracts, publishing agreements, artist management, promotion, and marketing.

Degree Requirements

Course Code	Course Title	Units
BUS 300	Introduction to Business	3
BUS 340	Business Law	3
BUS 350	Small Business Management/Entrepreneurship	3
MUFHL 321	Basic Musicianship	3
MUFHL 330	World Music	3
MUSM 311	Introduction to Music Business	3
MUSM 312	Advanced Music Business	3
MUSM 313	The Business of Music Management	3
MUSM 314	The Business of Music Marketing	3
MUSM 320	Contemporary Songwriting	3
A minimum of 3 units from the following:		3
BUS 210	The Business Plan (1)	
BUS 212	Marketing for Small Businesses (1)	
BUS 214	Financing a Small Business (1)	
BUS 216	Essential Records for the Small Business (1)	
BUS 218	Management Skills for the Small Business (1)	

Course Code	Course Title	Units
BUS 220	Retailing and Merchandising for the Small Business (1)	
BUS 224	Customer Service (1)	
BUS 228	Selling Techniques for the Small Business (1)	
Total Units:		**33**

The Commercial Music: Business Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- create a music business and marketing plan.
- organize an artist tour, assemble a promotional packet, create a publicity campaign, and develop media, industry, and fan lists.
- evaluate and implement recordkeeping systems for financial, employment, and tax records.
- demonstrate a basic knowledge of music fundamentals, cross-cultural influences from diverse geographical regions, and song composition/arranging techniques.
- analyze case problems and apply legal principles to interpret regulations, laws, and statutes related to the music industry.
- compare the job descriptions and duties of attorneys, publishers, merchandisers, record company personnel, agents, managers, and producers.
- assess record contract points, publisher-writer exclusive agreements, attorney-client contracts, as well as management and touring agreements.

Career Information

Typical career options include booking agent, personal manager, business manager, concert promotion, studio owner/manager, music legal services, publicity writer/public relations, tour management, music retail, music publishing and distribution, and music licensing. The degree also prepares students for transfer to a four-year institution.

A.A. in Commercial Music: Recording

This degree provides students the core skills needed to enter a career in audio engineering. Foundational classes in the theory and art of recording are coupled with significant laboratory experiences in order to prepare the student for further study at a four-year institution or for an entry-level career position.

Degree Requirements

Course Code	Course Title	Units
ET 302	Principles of Electricity and Electronics	4
MUSM 306	Live Sound Reinforcement	3
MUSM 311	Introduction to Music Business	3
MUSM 320	Contemporary Songwriting	3
MUSM 334	Introduction to Musical Instrument Digital Interface (MIDI)	2
MUSM 342	Recording Studio Techniques I	3
MUSM 344	Recording Studio Techniques II	3
MUSM 350	Recording Studio Techniques III	3
MUSM 356	Pro Tools 101, Introduction to Pro Tools	1.5
MUSM 357	Pro Tools 110 Intermediate Pro Tools	1.5
MUSM 362	Mixing and Mastering Music Projects	3
MUSM 367	Audio for Video Post Production	3
A minimum of 5 units from the following:		5
MUFHL 321	Basic Musicianship (3)	
MUFHL 330	World Music (3)	
MUIVI 340	Beginning Piano (2)	
MUSM 361	Advanced Studio Sessions (3)	
Total Units:		**38**

The Commercial Music: Recording Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze the signal flow and understand the operation of electrical components found in a typical recording studio.
- set up and employ the use of mixing consoles, multi-track recorders, Digital Audio Workstations (DAWs), and sound reinforcement systems.
- select and set up outboard signal processing hardware and software plug-ins for audio enhancement.

- explain music fundamentals, cross-cultural influences from diverse geographical regions, and song composition/ arranging techniques.
- create Musical Instrument Digital Interface (MIDI) sequencing and notation projects utilizing music keyboard input devices and various software packages.
- design and equip a fully-functioning and acoustically-sound recording studio.
- formulate and implement effective musical and technical recording session techniques.

Career Information

Typical career paths include recording engineer, broadcast engineer, live sound reinforcement, post-production audio, sound effects editor, multi-media/internet audio, and audio/ music education.

A.A. in Jazz Studies

This degree provides a rigorous curriculum of jazz theory, history, performance groups, improvisation, piano, and individual applied instruction.

Degree Requirements

Course Code	Course Title	Units
MUFHL 315	Jazz History	3
MUFHL 400	Music Theory and Musicianship I	4
MUFHL 401	Music Theory and Musicianship II	4
MUFHL 410	Music Theory and Musicianship III	4
MUFHL 420	Beginning Jazz Theory	2
MUIVI 385	Jazz Styles and Improvisation I (2)	2
or MUIVI 390	Jazz and Popular Vocal Styles and Improvisation I (2)	
MUIVI 400	Beginning Jazz Piano	2
A minimum of 8 units from the following:		8
MUP 320	Jazz Band (2)	
MUP 323	Latin Jazz Ensemble (2)	
MUP 400	Vocal Jazz Ensemble (2)	
A minimum of 4 units from the following:		4[1]
MUIVI 411	Applied Music Practicum (1)	
MUIVI 420	Applied Music (1)	
MUIVI 421	Applied Music II (1)	
MUIVI 425	Applied Music - Jazz I (1)	
MUIVI 426	Applied Music - Jazz II (1)	
Total Units:		**33**

[1]MUIVI 411 may be taken four times for credit.

The Jazz Studies Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze musical scores and compositions from the jazz idiom.
- critique personal music performances and those of other musicians.
- analyze and perform the basic elements of music (rhythm, melody, harmony, and form).
- create (compose and improvise) jazz music appropriate to the area of specialization.
- compare and contrast the characteristics of various historical periods of jazz.
- arrange compositions and assemble musicians for a performance.

Career Information

This degree prepares a student for careers in performance (concert and studio), education, arranging/composing, and the music industry. It also prepares students for transfer to a four-year institution.

A.A. in Music

The Music degree includes vocal and instrumental components, as well as courses in music, history, and theory. The general program is designed to provide students with a foundation in music theory and history. Performance opportunities in both vocal and instrumental music enhance a student's understanding and skill levels.

Degree Requirements

Course Code	Course Title	Units
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
MUFHL 400	Music Theory and Musicianship I	4
MUFHL 401	Music Theory and Musicianship II	4
MUFHL 410	Music Theory and Musicianship III	4
MUFHL 411	Music Theory and Musicianship IV	4

Course Code	Course Title	Units
A minimum of 4 units from the following:		4[1]
MUIVI 411	Applied Music Practicum (1)	
MUIVI 420	Applied Music (1)	
MUIVI 421	Applied Music II (1)	
MUIVI 422	Applied Music III (1)	
MUIVI 423	Applied Music IV (1)	
Subtotal Units:		**26**

Guitarists/Pianists/Composers

Course Code	Course Title	Units
A minimum of 8 units from the following:		8
MUP 310	Orchestra (2)	
MUP 330	Concert Band (2)	
MUP 340	Symphonic Band (2)	
MUP 350	Concert Choir I (2)	
MUP 360	Chamber Singers (2)	
Guitarists/Pianists/Composers Units:		8
Total Units:		**34**

Instrumentalists

Course Code	Course Title	Units
A minimum of 8 units from the following:		8
MUP 310	Orchestra (2)	
MUP 330	Concert Band (2)	
MUP 340	Symphonic Band (2)	
Instrumentalists Units:		8
Total Units:		**34**

Vocalists

Course Code	Course Title	Units
A minimum of 8 units from the following:		8
MUP 350	Concert Choir I (2)	
MUP 360	Chamber Singers (2)	
Vocalists Units:		8
Total Units:		**34**

[1]MUIVI 411 may be taken four times for credit.

The Music Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze musical scores and compositions.
- critique personal music performances and those of other musicians.
- analyze and perform the elements of music (rhythm, melody, harmony, and form).
- create derivative or original music at a level appropriate to the area of specialization.
- compare and contrast the characteristics of various musical cultures and historical periods from the origin of music history to the present.

Career Information

The Music degree prepares students for careers in music performance, education, composition, conducting, retail music industry, music publishing, and music therapy. The degree also prepares students for further study at a four-year institution.

Certificates of Achievement

Commercial Music: Business Certificate

This certificate explores the inner workings of the music industry in areas such as publishing, entertainment, distribution, and music law. Course work addresses industry-specific issues such as copyright, record contracts, publishing agreements, artist management, promotion, and marketing.

Certificate Requirements

Course Code	Course Title	Units
BUS 300	Introduction to Business	3
BUS 340	Business Law	3
BUS 350	Small Business Management/Entrepreneurship	3
MUFHL 321	Basic Musicianship	3
MUFHL 330	World Music	3
MUSM 311	Introduction to Music Business	3
MUSM 312	Advanced Music Business	3
MUSM 313	The Business of Music Management	3
MUSM 314	The Business of Music Marketing	3
MUSM 320	Contemporary Songwriting	3
A minimum of 3 units from the following:		3
BUS 210	The Business Plan (1)	
BUS 212	Marketing for Small Businesses (1)	
BUS 214	Financing a Small Business (1)	

Course Code	Course Title	Units
BUS 216	Essential Records for the Small Business (1)	
BUS 218	Management Skills for the Small Business (1)	
BUS 220	Retailing and Merchandising for the Small Business (1)	
BUS 224	Customer Service (1)	
BUS 228	Selling Techniques for the Small Business (1)	
Total Units:		**33**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- create a music business and marketing plan.
- organize an artist tour, assemble a promotional packet, create a publicity campaign, and develop media, industry, and fan lists.
- evaluate and implement recordkeeping systems for financial, employment, and tax records.
- demonstrate a basic knowledge of music fundamentals, cross-cultural influences from diverse geographical regions, and song composition/arranging techniques.
- analyze case problems and apply legal principles to interpret regulations, laws, and statutes related to the music industry.
- compare the job descriptions and duties of attorneys, publishers, merchandisers, record company personnel, agents, managers, and producers.
- assess record contract points, publisher-writer exclusive agreements, attorney-client contracts, as well as management and touring agreements.

Career Information

Typical career options include booking agent, personal manager, business manager, concert promotion, studio owner/manager, music legal services, publicity writer/public relations, tour management, music retail, music publishing and distribution, and music licensing.

Commercial Music: Recording Certificate

This certificate provides the core skills needed to enter a career in audio engineering. Foundational classes in the theory and art of recording are coupled with significant laboratory experiences in order to prepare the student for further study at a four-year institution or for an entry-level career position.

Certificate Requirements

Course Code	Course Title	Units
ET 302	Principles of Electricity and Electronics	4
MUSM 306	Live Sound Reinforcement	3
MUSM 311	Introduction to Music Business	3
MUSM 320	Contemporary Songwriting	3
MUSM 334	Introduction to Musical Instrument Digital Interface (MIDI)	2
MUSM 342	Recording Studio Techniques I	3
MUSM 344	Recording Studio Techniques II	3
MUSM 350	Recording Studio Techniques III	3
MUSM 356	Pro Tools 101, Introduction to Pro Tools	1.5
MUSM 357	Pro Tools 110 Intermediate Pro Tools	1.5
MUSM 362	Mixing and Mastering Music Projects	3
MUSM 367	Audio for Video Post Production	3
A minimum of 5 units from the following:		5
MUFHL 321	Basic Musicianship (3)	
MUFHL 330	World Music (3)	
MUIVI 340	Beginning Piano (2)	
MUSM 361	Advanced Studio Sessions (3)	
Total Units:		**38**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze the signal flow and understand the operation of electrical components found in a typical recording studio.
- set up and employ the use of mixing consoles, multi-track recorders, Digital Audio Workstations (DAWs), and sound reinforcement systems.
- select and set up outboard signal processing hardware and software plug-ins for audio enhancement.
- explain music fundamentals, cross-cultural influences from diverse geographical regions, and song composition/arranging techniques.
- create Musical Instrument Digital Interface (MIDI) sequencing and notation projects utilizing music keyboard input devices and various software packages.
- design and equip a fully-functioning and acoustically-sound recording studio.
- formulate and implement effective musical and technical recording session techniques.

Career Information

Typical career paths include recording engineer, broadcast engineer, live sound reinforcement, post-production audio, sound effects editor, multi-media/internet audio, and audio/music education.

Digital Audio Production Certificate

This certificate is intended to provide a practical foundation in audio production skills, provide suitable preparation to begin work in the recording and sound production industry, or to serve as a foundation for further study. It also enables people currently employed in the field of audio recording and other associated fields a means to upgrade and expand their skills.

Certificate Requirements

Course Code	Course Title	Units
MUSM 334	Introduction to Musical Instrument Digital Interface (MIDI)	2
MUSM 342	Recording Studio Techniques I	3
MUSM 344	Recording Studio Techniques II	3
MUSM 356	Pro Tools 101, Introduction to Pro Tools	1.5
MUSM 357	Pro Tools 110 Intermediate Pro Tools	1.5
MUSM 366	Pro Tools 201, Advanced Pro Tools (1.5)	1.5 - 3
or MUSM 350	Recording Studio Techniques III (3)	
Total Units:		**12.5 - 14**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- create, arrange, and notate music using standard Musical Instrument Digital Interface (MIDI) software
- produce audio recordings, music mixes, and audio post-production projects using a Digital Audio Workstation (DAW)
- evaluate various formats and platforms of digital audio recording hardware and software
- integrate outboard signal processing equipment and plug-ins into the audio signal path for audio enhancement
- formulate and implement effective recording session techniques
- analyze the fundamental process and sequence involved in the production of digital audio

Career Information

Typical career paths include post-production audio, broadcast engineer, sound effects editor, multimedia/Internet audio, professional recording studio engineer, and owner/engineer of a smaller demo production studio.

Music Management and Promotion Certificate

This certificate offers an overview of the core skills essential to enter the music industry in careers such as artist and music facility management, concert promotion, marketing, and publishing. It also assists those who wish to pursue a career as an independent artist, set up their own record label, or manage their own career.

Certificate Requirements

Course Code	Course Title	Units
MUSM 311	Introduction to Music Business	3
MUSM 312	Advanced Music Business	3
MUSM 313	The Business of Music Management	3
MUSM 314	The Business of Music Marketing	3
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate and critique recording, management, publishing, and other music industry contracts
- propose and employ networking skills and tools to develop contacts in the music industry
- compare and contrast traditional and alternative music distribution channels
- research merchandising considerations including design, pricing, manufacturing, and distribution
- create marketing and business plans
- describe emerging trends, models, and entrepreneurial opportunities in the music industry
- assess promotion tools such as radio, television, and new media, such as YouTube, social networking, and viral campaigns

Career Information

Typical career options include booking agent, personal manager, business manager, concert promotion, studio owner/manager, music legal services, publicity writer/public relations, tour management, music retail, music publishing and distribution, and music licensing.

Certificates

Music Instructional Assistant Certificate

The certificate is an introductory program for students planning careers in music education for grades K-12

Certificate Requirements

Course Code	Course Title	Units
MUFHL 400	Music Theory and Musicianship I	4
MUIVI 200	Introduction to Music Education	0.5
MUIVI 340	Beginning Piano	2
MUIVI 420	Applied Music	1
A minimum of 1 unit from the following:		1
MUIVI 298	Work Experience in Instrumental/Voice Instruction (0.5 - 4)	
MUIVI 498	Work Experience in Instrumental/Voice Instruction (0.5 - 4)	
Subtotal Units:		**8.5**

Guitarists/Pianists/Composers

Course Code	Course Title	Units
A minimum of 2 units from the following:		2
MUP 310	Orchestra (2)	
MUP 320	Jazz Band (2)	
MUP 323	Latin Jazz Ensemble (2)	
MUP 330	Concert Band (2)	
MUP 340	Symphonic Band (2)	
MUP 350	Concert Choir I (2)	
MUP 360	Chamber Singers (2)	
MUP 400	Vocal Jazz Ensemble (2)	
Guitarists/Pianists/Composers Units:		2
Total Units:		**10.5**

Instrumentalists

Course Code	Course Title	Units
A minimum of 2 units from the following:		2
MUP 310	Orchestra (2)	
MUP 320	Jazz Band (2)	
MUP 323	Latin Jazz Ensemble (2)	
MUP 330	Concert Band (2)	
MUP 340	Symphonic Band (2)	
Instrumentalists Units:		2
Total Units:		**10.5**

Vocalists

Course Code	Course Title	Units
A minimum of 2 units from the following:		2
MUP 350	Concert Choir I (2)	
MUP 360	Chamber Singers (2)	
MUP 400	Vocal Jazz Ensemble (2)	
Vocalists Units:		2
Total Units:		**10.5**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- three years of experience in any band or choir

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- interpret a music score and play a melody with accompanying block chords (I, IV, V7)
- evaluate the playing of others
- recommend and demonstrate good practice habits
- formulate practice routines specific to an instrument
- create basic lesson plans for beginning instrumental or choral ensembles
- evaluate and critique performance ensembles
- select appropriate teaching materials for beginning band or choral ensembles
- compose for various instrumental and vocal combinations
- apply effective leadership styles at work, with consideration to group dynamics, team and individual decision making, and workforce diversity

Career Information

This certificate prepares a student for careers in music education, grades K-12, in paraprofessional roles such as a docent, tutor, or instructional assistant.

Studio Jazz/Pop Voice Instructor Certificate

This certificate offers an overview of the skills essential to enter the studio jazz/pop voice teaching profession as either a member of a retail studio or as an independent voice instructor, coach, consultant, or tutor.

Certificate Requirements

Course Code	Course Title	Units
MUIVI 310	Voice Class I	2
MUIVI 311	Voice Class II	2
MUIVI 390	Jazz and Popular Vocal Styles and Improvisation I	2
MUIVI 391	Jazz and Popular Vocal Styles and Improvisation II	2
MUP 400	Vocal Jazz Ensemble	2
MUFHL 321	Basic Musicianship (3)	2 - 3
or MUIVI 340	Beginning Piano (2)	
or MUIVI 385	Jazz Styles and Improvisation I (2)	
or MUIVI 400	Beginning Jazz Piano (2)	
or MUIVI 370	Beginning Guitar (2)	
Total Units:		**12 - 13**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- diagnose poor vocal habits.
- formulate a pedagogical plan to resolve poor vocal habits.
- evaluate a voice student's vocal skills.
- devise a pedagogical plan to develop or improve basic vocal skills.
- devise a pedagogical plan to develop or improve jazz/pop style.
- assess a vocalist's ability to maintain independence in a harmonic setting.
- devise and implement a pedagogical plan to develop or improve a vocalist's ability to maintain independence in a harmonic setting.
- demonstrate the basic skills necessary to sing with appropriate breath support and jazz/pop tone quality.
- demonstrate the basic skills necessary to expand the vocal range and flexibility.

Career Information

Typical career options include employment as owner or employee of a private voice studio and vocal consultant to local recording studios, bands, and music troupes.

Studio Music Instructor Certificate

This certificate focuses on studio music teaching and prepares students for employment as an owner or employee of a private or public music studio. It includes tutoring and coaching students/clients in basic instrumental/vocal technique with an emphasis on performance pedagogy.

Certificate Requirements

Course Code	Course Title	Units
MUFHL 321	Basic Musicianship	3
MUIVI 200	Introduction to Music Education	0.5
MUIVI 340	Beginning Piano	2
MUIVI 420	Applied Music	1
MUIVI 421	Applied Music II	1
A minimum of 1 unit from the following:		1
MUIVI 298	Work Experience in Instrumental/Voice Instruction (0.5 - 4)	
MUIVI 498	Work Experience in Instrumental/Voice Instruction (0.5 - 4)	
Subtotal Units:		**8.5**

Guitarists/Pianist/Composers

Course Code	Course Title	Units
A minimum of 2 units from the following:		2
MUP 311	Advanced Orchestra (1 - 2)	
MUP 321	Advanced Jazz Band (1 - 2)	
MUP 324	Advanced Latin Jazz Ensemble (1 - 2)	
MUP 331	Advanced Concert Band (1 - 2)	
MUP 341	Advanced Symphonic Band (1 - 2)	
MUP 352	Advanced Concert Choir (2)	
MUP 361	Advanced Chamber Singers (2)	
MUP 401	Advanced Vocal Jazz Ensemble (1 - 2)	
Guitarists/Pianist/Composers Units:		2
Total Units:		**10.5**

Instrumentalists

Course Code	Course Title	Units
A minimum of 2 units from the following:		2
MUP 311	Advanced Orchestra (1 - 2)	
MUP 321	Advanced Jazz Band (1 - 2)	
MUP 324	Advanced Latin Jazz Ensemble (1 - 2)	
MUP 331	Advanced Concert Band (1 - 2)	
MUP 341	Advanced Symphonic Band (1 - 2)	
Instrumentalists Units:		2
Total Units:		**10.5**

Vocalists

Course Code	Course Title	Units
A minimum of 2 units from the following:		2

Course Code	Course Title	Units
MUP 352	Advanced Concert Choir (2)	
MUP 361	Advanced Chamber Singers (2)	
MUP 401	Advanced Vocal Jazz Ensemble (1 - 2)	
Vocalists Units:		2
Total Units:		**10.5**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- three years of experience in either band or choir.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply effective leadership styles at work, with consideration to group dynamics, team and individual decision making, and workforce diversity
- design and implement an effective practice routine
- interpret a music score and play a melody with accompanying block chords (I, IV, V7)
- compare and contrast music from different musical eras written for instrument/voice
- analyze music performance skills
- demonstrate the skills needed to play simultaneously with other pianists/musicians
- demonstrate individual musical skills commensurate with the Level I & II National Association of Schools of Music (NASM) guidelines
- analyze basic music form and structure
- construct scales, chords, harmonic progressions and rhythms

Career Information

This certificate offers an overview of the skills essential to enter the music teaching profession as either a member of a retail studio or as an independent music instructor, coach, consultant, or tutor.

Studio Voice Instructor Certificate

This certificate offers an overview of the skills essential to enter the studio voice teaching profession as either a member of a retail studio or as an independent voice instructor, coach, consultant, or tutor.

Certificate Requirements

Course Code	Course Title	Units
MUIVI 310	Voice Class I	2
MUIVI 311	Voice Class II	2
MUIVI 320	Voice Class III	2
MUIVI 321	Voice Class IV	2
MUFHL 321	Basic Musicianship (3)	2 - 3
or MUIVI 340	Beginning Piano (2)	
or MUIVI 370	Beginning Guitar (2)	
MUP 350	Concert Choir I (2)	2
or MUP 360	Chamber Singers (2)	
or MUP 400	Vocal Jazz Ensemble (2)	
Total Units:		**12 - 13**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- diagnose poor vocal habits.
- formulate a pedagogical plan to resolve poor vocal habits.
- evaluate a voice student's vocal skills.
- devise a pedagogical plan to develop or improve basic vocal skills.
- classify voice types based upon range.
- assess a vocalist's ability to maintain independence in a harmonic setting.
- devise and implement a pedagogical plan to develop or improve a vocalist's ability to maintain independence in a harmonic setting.
- demonstrate the basic skills necessary to sing with appropriate breath support and tone quality.
- demonstrate the basic skills necessary to expand the vocal range and flexibility.

Career Information

The Studio Voice Instructor will find employment as owner or employee of a private voice studio. This position will include coaching students/clients in basic vocal technique with an emphasis on traditional vocal pedagogy.

Music - Fundamentals, History, and Literature (MUFHL) Courses

MUFHL 299 Experimental Offering in Music Fundamentals/History and Literature

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

MUFHL 300 Introduction to Music

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

C-ID: C-ID MUS 100

This course is an introductory examination of how composers and songwriters apply the various elements of music to heighten the expressive impact of a composition. Aspects of melody, rhythm, harmony, tone, and structure are studied through focused listening of works from the Renaissance to contemporary styles of avant-garde and popular music. This course requires no previous musical study.

MUFHL 308 Introduction to Music: Rock & Roll

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course examines social, political, cultural, and economic issues as they relate to the history of Rock & Roll music. It includes guided listening and video presentations to show the evolution of Rock from its roots to current stylistic trends. This course requires no previous musical study.

MUFHL 310 Survey of Music History and Literature (Greek Antiquity to 1750)

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: MUFHL 321 and 400; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

C-ID: C-ID MUS 105

This is the first of a two-course series that offers a survey of the history of music, including the most significant composers and works from antiquity to 1750. It provides background on medieval, renaissance, and baroque music, thus increasing understanding of modern styles derived from these early periods of music.

MUFHL 311 Survey of Music History and Literature (1750 to the present)

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: MUFHL 321 and 400; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

C-ID: C-ID MUS 106

This is the second of a two-course series that offers a survey of the history of music including the most significant composers and works from the Classical period to the present. It provides background on Classical, Romantic, Impressionistic, and 20th-century music, thus increasing understanding of modern styles derived from these periods of music.

MUFHL 315 Jazz History

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: ENGL C1000 or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course introduces the history of jazz. Topics include ethnicity, ethnocentrism, racism, ageism, class differences, and gender issues. Guided listening presentations 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.

MUFHL 321 Basic Musicianship

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: No credit if taken after MUFHL 400)

General Education: Local GE L3; Cal-GETC Area 3A

C-ID: C-ID MUS 110

This course introduces the elements of music including scales, chords, aural skills, harmonic progression, form, notation, and composition. No previous musical study is required.

MUFHL 330 World Music

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course is an introduction to folk, dance, ceremonial, and popular music from around the world. Guided listening presentations show how traditional forms and styles have led to the urban, professional music popular in many countries today known as "World Beat." It addresses concepts of ethnicity, ethnocentrism, racism, ageism, class differences, and gender issues. It compares the music of the Americas, Africa, Asia, India, Europe, and the Middle East. No previous musical experience is required.

MUFHL 400 Music Theory and Musicianship I

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: MUFHL 321 or MUIVI 340 with a grade of "C" or better; Knowledge of musical notation

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

C-ID: C-ID MUS 125; C-ID MUS 120

This course is a study of scales, intervals, triads, diatonic harmonies, part writing, rhythms, sight-singing, ear training, dictation, history, and performance. It includes short creative assignments to provide experience in the application of materials learned in class. It includes analysis and composition and is required for music majors.

MUFHL 401 Music Theory and Musicianship II

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: MUFHL 400 with a grade of "C" or better

Advisory: MUIVI 341

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

C-ID: C-ID MUS 130; C-ID MUS 135

This course is a continuation of MUFHL 400. It provides a more in-depth study of scales, triads, diatonic harmonies, part writing, rhythms, sight singing, ear training, dictation, form, history, and performance. It also includes the study of harmonic progression, dominant and non-dominant seventh chords, modulation, secondary function chords, and binary and ternary form. It includes analysis and composition and is required for music majors.

MUFHL 410 Music Theory and Musicianship III

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: MUFHL 401 with a grade of "C" or better

Advisory: MUIVI 350

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

C-ID: C-ID MUS 140; C-ID MUS 145

This course is a continuation of MUFHL 401. It includes the study of 16th- and 18th-century counterpoint, fugue, variation, altered chords, sonata-allegro, and rondo forms, and late 19th-century writing techniques; practice in rhythmic, melodic, harmonic, and contrapuntal sight singing; ear training, and dictation. This course is required for music majors.

MUFHL 411 Music Theory and Musicianship IV

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: MUFHL 410 with a grade of "C" or better

Advisory: MUIVI 351

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

C-ID: C-ID MUS 150; C-ID MUS 155

This course is a continuation of MUFHL 410. It includes a more in-depth study of altered chords and late 19th- and 20th-century writing techniques including: 9th, 11th, and 13th chords; altered dominants; chromatic harmony; dodecaphony; set theory; aleatory; minimalism; and analysis techniques. It includes practice in rhythmic, melodic, harmonic and contrapuntal sight-singing, ear-training, and dictation. This course is required for music majors.

MUFHL 420 Beginning Jazz Theory

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Prerequisite: MUFHL 400 with a grade of "C" or better

Advisory: MUIVI 385 and 400

Transferable: CSU; UC

This course introduces the elements of jazz theory including harmonic, melodic, and formal elements of the jazz idiom. It includes analysis and composition and is required for jazz majors.

MUFHL 421 Advanced Jazz Theory

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Prerequisite: MUFHL 420 with a grade of "C" or better

Advisory: MUIVI 386 and 400

Transferable: CSU; UC

This course presents a continuation of jazz concepts presented in MUFHL 420. It emphasizes advanced elements of jazz theory including composition and arranging, as well as harmonic, melodic, and formal analysis in the jazz idiom.

MUFHL 495 Independent Studies in Music Fundamentals/History and Literature

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

MUFHL 499 Experimental Offering in Music Fundamentals/History and Literature

Units: 0.5 - 4

Hours: 9 - 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course is designed to give students an opportunity to study topics in music which are not included in current course offering. May be taken four times for credit for a maximum of eight units on different topics.

Music - Instrumental/Voice Instruction (MUIVI) Courses

MUIVI 200 Introduction to Music Education

Units: 0.5

Hours: 9 hours LEC

Prerequisite: MUFHL 321 (Basic Musicianship) with a grade of "C" or better, or equivalent, AND three years of experience in either band or choir.

This course is a survey of the resources used in the music education profession as a band or choir teacher. It introduces the basic skills necessary to teach beginning band or choir. Topics include creating lesson plans, classroom management, and basic conducting patterns.

MUIVI 298 Work Experience in Instrumental/Voice Instruction

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Music Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of instrumental/voice instruction. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

MUIVI 310 Voice Class I

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Traditional Voice Fundamentals

Prerequisite: None.

Advisory: MUFHL 321

Transferable: CSU; UC

This course is the study of solo singing. Topics include basic vocal technique, breathing, mouth position, and solo repertoire.

MUIVI 311 Voice Class II

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Traditional Voice Fundamentals

Prerequisite: MUIVI 310 with a grade of "C" or better

Advisory: MUFHL 321

Transferable: CSU; UC

This course is the continued study of solo singing. Topics include vocal technique, breathing, mouth positions and vowel formation, the International Phonetic Alphabet, and solo repertoire.

MUIVI 320 Voice Class III

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Traditional Voice Technique and Repertoire

Prerequisite: MUIVI 311 with a grade of "C" or better

Advisory: MUFHL 321

Transferable: CSU; UC

This course is the continued study of solo singing. Topics include tone placement, register balance, vocal health, and solo repertoire.

MUIVI 321 Voice Class IV

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Traditional Voice Technique and Repertoire

Prerequisite: MUIVI 320 with a grade of "C" or better

Advisory: MUFHL 321

Transferable: CSU; UC

This course is the continued study of solo singing. Topics include bel canto technique, Italian and German solo repertoire, tone placement, register balance, and vocal health.

MUIVI 340 Beginning Piano

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Traditional Piano Fundamentals

Prerequisite: None.

Transferable: CSU; UC

C-ID: C-ID MUS 170

This course introduces piano/keyboard skills. It presents beginning concepts of music theory, music notation, and harmonizing simple melodies. This course is open to all students and is recommended for music majors who do not demonstrate equivalent piano proficiency.

MUIVI 341 Piano II

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Traditional Piano Fundamentals

Prerequisite: MUIVI 340 with a grade of "C" or better

Transferable: CSU; UC

C-ID: C-ID MUS 171

This course is a continuation of MUIVI 340 and is designed for students interested in piano as a medium of expression and enjoyment, as well as for prospective preschool, kindergarten, and elementary-school teachers. It covers major and minor scales and chords, bass styles, chromatic scales, and literature with greater rhythmic and harmonic complexity. It is the second semester of a four-semester sequence for music majors who need to demonstrate piano proficiency.

MUIVI 350 Piano III

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Traditional Piano Technique and Repertoire

Prerequisite: MUIVI 341 with a grade of "C" or better; or the ability to play major scales (one octave, hands together C, G, F, D, A, and E-major) and the ability to play a simple melody with basic chordal accompaniment in a major or minor key.

Transferable: CSU; UC

C-ID: C-ID MUS 172

This course expands on the foundations of piano playing studied in MUIVI 341 and includes further study of the harmonization of melodies, major and minor scales, and repertoire.

MUIVI 351 Piano IV

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Traditional Piano Technique and Repertoire

Prerequisite: MUIVI 350 with a grade of "C" or better, OR the ability to play all major scales, hands together, two octaves, and harmonic minor scales in A, E, B, F, D, and G, hands together, two octaves.

Transferable: CSU; UC

This course is the fourth semester of piano study. It is a continuation of MUIVI 350 and includes the further development of insight into music as an artistic means of communication through the study of scales, chords, melodic harmonization, and repertoire. This course also serves to develop the fundamental skills for the non-keyboard music major.

MUIVI 370 Beginning Guitar

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Traditional Guitar and Bass

Prerequisite: None.

Transferable: CSU; UC

This course provides guitar instruction emphasizing the fundamentals of music reading, basic technique and skills in note reading, improvisation, accompanying, and development of personal style.

MUIVI 371 Intermediate Guitar

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Traditional Guitar and Bass

Prerequisite: MUIVI 370 with a grade of "C" or better

Transferable: CSU; UC

This course is a continuation of MUIVI 370. It emphasizes increased skills in note reading, improvisation, accompanying, and development of personal style.

MUIVI 385 Jazz Styles and Improvisation I

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Jazz Instrumental

Prerequisite: None.

Enrollment Limitation: Ability to play a melodic instrument or ability to sight sing; ability to read music in the treble or bass clef.

Advisory: MUFHL 400

Transferable: CSU; UC

This course is the study of instrumental and vocal applications of jazz improvisation. It includes analysis and composition and is required for jazz studies majors.

MUIVI 386 Jazz Styles and Improvisation II

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Jazz Instrumental

Prerequisite: MUIVI 385 with a grade of "C" or better

Advisory: MUFHL 420

Transferable: CSU; UC

This course is the study of advanced instrumental and vocal applications of jazz improvisation. It includes analysis and is a continuation of the concepts covered in MUIVI 385.

MUIVI 390 Jazz and Popular Vocal Styles and Improvisation I

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Jazz Voice

Prerequisite: None.

Advisory: MUFHL 321 and MUIVI 310

Transferable: CSU; UC

C-ID: C-ID MUS 160

This course is a study of popular and jazz solo singing styles and improvisation. Topics include jazz and pop styles, microphone technique, basic improvisation, and vocal technique.

MUIVI 391 Jazz and Popular Vocal Styles and Improvisation II

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Jazz Voice

Prerequisite: MUIVI 390 with a grade of "C" or better

Advisory: MUIVI 311

Transferable: CSU; UC

C-ID: C-ID MUS 160

This course is the continued study of popular and jazz singing styles and improvisation. Topics include rhythm section rehearsal techniques for singers, funk styles, pentatonic scales, Lydian dominant improvisation, and transposition.

MUIVI 400 Beginning Jazz Piano

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Jazz Piano

Prerequisite: MUIVI 340 with a grade of "C" or better

Advisory: MUFHL 400, MUFHL 420, or MUIVI 385

Transferable: CSU; UC

This course is an introduction to the fundamentals of jazz piano. Topics include blues, left-hand voicings, two-hand voicings, and scale theory applications to the keyboard.

MUIVI 401 Intermediate Jazz Piano

Units: 2

Hours: 36 hours LEC; 18 hours LAB

Course Family: Jazz Piano

Prerequisite: MUIVI 400 with a grade of "C" or better

Advisory: MUFHL 420

Transferable: CSU; UC

This course covers intermediate studies in jazz piano. Topics include arranging jazz harmonies at the keyboard using techniques such as three- and four-note rootless voicings, five-note mixed-modal voicings, "Drop 2," Red Garland voicings, and the "So What" chord.

MUIVI 411 Applied Music Practicum

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Enrollment Limitation: Performance assessment

Advisory: Enrolled in one of the following; MUIVI 340, MUFHL 321, 400, 401, 410, 411, 420, or 421; AND Enrolled in one of the following; MUP 310, 320, 323, 330, 340, 350, 360, or 400.

Transferable: CSU; UC

C-ID: C-ID MUS 160

This course is the study of appropriate techniques and repertoire for the voice and instruments appropriate for music majors. It focuses on individualized instrumental, composition, or vocal instruction. It also includes solo performances, recital participation, masterclasses, and a final juried performance.

MUIVI 420 Applied Music

Units: 1

Hours: 7 hours LEC; 33 hours LAB

Course Family: Traditional Applied Music Fundamentals

Prerequisite: None.

Corequisite: MUFHL 400, AND one of the following: MUP 310, 320, 330, 340, 350, 360, or 400.

Enrollment Limitation: Audition

Transferable: CSU; UC

C-ID: C-ID MUS 160

This is the first course in a four-part series which focuses on the development of individual performance skills and solo and ensemble repertoire. It includes one-on-one instrumental, composition, or vocal instruction for a total of seven hours per semester. It also includes six hours per semester of solo performance, recital participation, masterclasses, and a final juried performance. It also includes one-and-one-half hours documented practice time per week. This course is required for all traditional performance and jazz music majors. Students must be concurrently enrolled in a large performance ensemble appropriate for their concentration. Students should also be enrolled in or have completed MUFHL 400.

MUIVI 421 Applied Music II

Units: 1

Hours: 7 hours LEC; 33 hours LAB

Course Family: Traditional Applied Music Fundamentals

Prerequisite: MUIVI 420 with a grade of "C" or better

Corequisite: MUFHL 401, AND one of the following: MUP 310, 320, 330, 340, 350, 360, or 400.

Enrollment Limitation: Audition

Transferable: CSU; UC

C-ID: C-ID MUS 160

This is the second course in a four-part series which focuses on the development of individual performance skills and solo and ensemble repertoire. It includes one-on-one or small-group instrumental, composition, or vocal instruction for a total of seven hours per semester. It also includes six hours per semester of solo performance, recital participation, masterclasses, and a final juried performance. It also includes one-and-one-half hours documented practice time per week. This course is required for all traditional performance and jazz music majors. Students must be concurrently enrolled in a large performance ensemble appropriate for their concentration. Students should also be enrolled in or have completed music theory course MUFHL 401.

MUIVI 422 Applied Music III

Units: 1

Hours: 7 hours LEC; 33 hours LAB

Course Family: Traditional Applied Music Technique and Repertoire

Prerequisite: MUIVI 421 with a grade of "C" or better

Corequisite: MUFHL 410, AND one of the following: MUP 310, 330, 340, 350, 360, or 400

Enrollment Limitation: Audition

Transferable: CSU; UC

C-ID: C-ID MUS 160

This is the third course in a four-part series which focuses on the development of individual performance skills and solo and ensemble repertoire. It includes one-on-one or small group instrumental, composition, or vocal instruction for a total of seven hours per semester. It also includes seven hours per semester of solo performance, recital attendance, masterclasses, and a final juried performance. It also includes one-and-one-half hours documented practice time per week. This course is required for all traditional performance and composition majors. Students must be concurrently enrolled in a traditional large performance ensemble appropriate to their concentration. Students should also be enrolled in or have completed music theory course MUFHL 410.

MUIVI 423 Applied Music IV

Units: 1

Hours: 7 hours LEC; 33 hours LAB

Course Family: Traditional Applied Music Technique and Repertoire

Prerequisite: MUIVI 422 with a grade of "C" or better

Corequisite: MUFHL 411, AND one of the following: MUP 310, 330, 340, 350, or 360

Enrollment Limitation: Audition

Transferable: CSU; UC

C-ID: C-ID MUS 160

This is the final course in a four-part series which focuses on the development of individual performance skills and solo and ensemble repertoire. It includes one-on-one instrumental, composition, or vocal instruction for a total of seven hours per semester. It also includes seven hours per semester of solo performance, recital attendance, masterclasses, and a final juried performance. It also includes one-and-one-half hours documented practice time per week. This course is required for all traditional performance majors. Students must be concurrently enrolled in a large performance ensemble appropriate for their concentration. Students should also be enrolled in or have completed music theory course MUFHL 411.

MUIVI 425 Applied Music - Jazz I

Units: 1

Hours: 7 hours LEC; 33 hours LAB

Course Family: Jazz Applied Music

Prerequisite: MUIVI 421 with a grade of "C" or better

Corequisite: MUFHL 410 or 420; AND MUP 320 or 400.

Enrollment Limitation: Audition

Transferable: CSU; UC

C-ID: C-ID MUS 160

This is the third course in a four-part series which focuses on the development of individual performance skills and solo and ensemble repertoire in the jazz idiom. It includes one-on-one instrumental or vocal instruction for a total of seven hours per semester. It also includes seven hours per semester of solo performance, recital attendance, masterclasses, and a final juried performance. It also includes one-and-one-half hours documented practice time per week. This course is required for all jazz studies majors. Students must be concurrently enrolled in a large performance jazz ensemble appropriate for their concentration. Students should also be enrolled in or have completed either music theory course MUFHL 410 or MUFHL 420.

MUIVI 426 Applied Music - Jazz II

Units: 1

Hours: 7 hours LEC; 33 hours LAB

Course Family: Jazz Applied Music

Prerequisite: MUIVI 425 with a grade of "C" or better; AND MUFHL 410 or 420.

Corequisite: MUFHL 410 or 420; AND MUP 320 or 400.

Enrollment Limitation: Audition

Transferable: CSU; UC

C-ID: C-ID MUS 160

This is the final course in a four-part series which focuses on the development of individual performance skills and solo and ensemble repertoire in the jazz idiom. It includes one-on-one instrumental or vocal instruction for a total of seven hours per semester. It also includes seven hours per semester of solo performance, recital attendance, masterclasses, and a final juried performance. It also includes one-and-one-half hours of documented practice time per week. This course is required for all jazz performance majors. Students must be concurrently enrolled in a large performance jazz ensemble appropriate for their concentration. Students should also be enrolled in or have completed music theory course MUFHL 410 or MUFHL 420.

MUIVI 495 Independent Studies in Music Instrumental/Voice Instruction

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

MUIVI 498 Work Experience in Instrumental/Voice Instruction

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Music Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of instrumental/voice instruction. 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 Title 5 required forms which document the

student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

MUIVI 499 Experimental Offering in Music Instrumental/Voice Instruction

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Music - Performance (MUP) Courses

MUP 310 Orchestra

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Ability to play at least one instrument commonly used in orchestra.

Transferable: CSU; UC

C-ID: C-ID MUS 180

This course is the study and performance of orchestral repertoire encompassing a wide variety of orchestral styles. Public performances and field trips may be required. This course may be taken up to four times for credit.

MUP 311 Advanced Orchestra

Units: 1 - 2

Hours: 9 - 18 hours LEC; 27 - 54 hours LAB

Prerequisite: MUP 310 with a grade of "C" or better; or an audition.

Transferable: CSU; UC

C-ID: C-ID MUS 180

This course is the continuing study and performance of orchestral repertoire. Additional topics include experience in conducting, rehearsal techniques, and section leading. Public performances and/or field trips may be required. This course may be taken up to four times for credit.

MUP 320 Jazz Band

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Ability to play at least one instrument commonly used in jazz ensemble; audition required.

Transferable: CSU; UC

C-ID: C-ID MUS 180

This course is the study and performance of jazz band repertoire encompassing a wide variety of music in the jazz style. Public performances and field trips may be required. This course may be taken four times for credit.

MUP 321 Advanced Jazz Band

Units: 1 - 2

Hours: 9 - 18 hours LEC; 27 - 54 hours LAB

Prerequisite: Completion of 8 units of MUP 320 with a grade of "C" or better

Transferable: CSU; UC

C-ID: C-ID MUS 180

This course is the continuing study and performance of jazz band repertoire and techniques. Additional topics include improvising, conducting, rehearsal technique, and section leading. Public performances and field trips may be required. This course may be taken four times for credit.

MUP 323 Latin Jazz Ensemble

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Ability to play at least one instrument commonly used in jazz ensemble; audition required.

Transferable: CSU; UC

C-ID: C-ID MUS 180; C-ID MUS 185

This course is the study and performance of Latin jazz repertoire encompassing a wide variety of Latin American and Afro-Cuban jazz styles. Public performances and field trips may be required. This course may be taken up to four times for credit.

MUP 324 Advanced Latin Jazz Ensemble

Units: 1 - 2

Hours: 9 - 18 hours LEC; 27 - 54 hours LAB

Prerequisite: Completion of 8 units of MUP 323 with a grade of "C" or better

Transferable: CSU; UC

C-ID: C-ID MUS 180; C-ID MUS 185

This course is the further study, rehearsal, and public performance of Latin Jazz literature appropriate to the ensemble. It emphasizes the development of skills needed to perform a wide variety of Latin American and Afro-Cuban jazz styles. Different literature will be studied each semester. Public performance is required; field trips may be required. This course may be taken up to four times for credit.

MUP 327 Chamber Jazz Ensemble

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Ability to play at least one instrument commonly found in a jazz ensemble; audition required.

Transferable: CSU; UC

C-ID: C-ID MUS 180; C-ID MUS 185

This course examines and evaluates techniques of chamber jazz group organization, jazz arranging, and jazz improvisation. Chamber jazz recording techniques are analyzed focusing on studio etiquette, microphone setup, headphone mix, and playback critique. Public performances and field trips may be required. This course may be taken four times for credit.

MUP 328 Advanced Chamber Jazz Ensemble

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: Completion of 8 units of MUP 327 with a grade of "C" or better

Transferable: CSU; UC

C-ID: C-ID MUS 180; C-ID MUS 185

This course examines and evaluates advanced techniques of chamber jazz ensemble organization. Ensemble members select music, formulate rehearsal strategy, and set up and evaluate group performances. Public performances and field trips may be required. This course may be taken four times for credit.

MUP 330 Concert Band

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Ability to play a concert band instrument.

Transferable: CSU; UC

C-ID: C-ID MUS 180

This course is the study and performance of concert band repertoire. It is open to those who play a concert band instrument. Public performances and/or field trips may be required. This course may be taken up to four times for credit.

MUP 331 Advanced Concert Band

Units: 1 - 2

Hours: 9 - 18 hours LEC; 27 - 54 hours LAB

Prerequisite: MUP 330 (Concert Band) with a grade of "C" or better; or audition.

Transferable: CSU; UC

C-ID: C-ID MUS 180

This course is the continuing study and performance of concert band literature. Additional topics include conducting, rehearsal techniques, and section leading. Public performances and/or field trips may be required. This course may be taken up to four times for credit.

MUP 340 Symphonic Band

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Ability to play a symphonic band instrument.

Transferable: CSU; UC

C-ID: C-ID MUS 180

This course is the study and performance of the symphonic band repertoire. It is open to those who play a symphonic band instrument. Public performances and/or field trips may be required. This course may be taken up to four times for credit.

MUP 341 Advanced Symphonic Band

Units: 1 - 2

Hours: 9 - 18 hours LEC; 27 - 54 hours LAB

Prerequisite: MUP 340 (Symphonic Band) with a grade of "C" or better; or audition.

Transferable: CSU; UC

C-ID: C-ID MUS 180

This course is the continuing study and performance of advanced symphonic band literature. Additional topics include conducting, rehearsal techniques, and section leading. Public performances and/or field trips may be required. This course may be taken up to four times for credit.

MUP 350 Concert Choir I

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Ability to match pitch and produce a good tone demonstrated in the audition.

Transferable: CSU; UC

C-ID: C-ID MUS 180

This course is the study and performance of choir literature including classical works, contemporary pieces, and music of many diverse cultures. Public performances, festivals, and field trips may be required. This course may be taken up to four times for credit.

MUP 352 Advanced Concert Choir

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: MUP 350 with a grade of "C" or better

Transferable: CSU; UC

C-ID: C-ID MUS 180

This course provides continued study and performance of advanced choir literature including classical works, contemporary pieces, and music of many diverse cultures. Advanced ensemble members may learn conducting skills and lead small-group practice sessions. Public performances, festivals, and field trips may be required. This course may be taken four times for credit.

MUP 360 Chamber Singers

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Audition required. Auditions generally occur during the first week of instruction. The audition includes sight singing, the preparation of a short musical excerpt, and an aural skills assessment.

Transferable: CSU; UC

C-ID: C-ID MUS 180

This course is an advanced choral ensemble of limited size. It covers a wide variety of music; classical, world music, folksong arrangements, and contemporary compositions. An audition is required. Public performances, festivals, and field trips may be required. This course may be taken up to four times for credit.

MUP 361 Advanced Chamber Singers

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: 8 units of MUP 360 with a grade of "C" or better

Enrollment Limitation: Audition required. Auditions generally occur the first week of instruction. The audition includes sight singing, the preparation of a short musical excerpt, and an aural skills assessment.

Transferable: CSU; UC

C-ID: C-ID MUS 180

This course is an advanced choral ensemble of limited size performing a wide variety of music; classical, world music, folksong arrangements, and contemporary compositions. Advanced ensemble members may conduct pieces and lead small-group breakout practice sessions. Public performances, festivals, and field trips may be required. This course may be taken four times for credit.

MUP 370 Rehearsal and Performance - Musical Ensemble

Same As: TA 466

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Course Family: Musical Performance

Prerequisite: None.

Enrollment Limitation: Audition/Interview

Transferable: CSU; UC

This course provides a workshop training experience in the preparation and performance of musical theatre ensemble productions. A different production is presented each semester the course is offered. Students interested in singing/acting roles audition with the director. Students interested in instrumental positions audition with the musical director.

Students interested in technical work interview with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 27-162 hours which may include acting, singing, dancing, musical, or technical rehearsals and preparation. It is not open to students who have completed TA 466.

MUP 400 Vocal Jazz Ensemble

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Audition is required. The audition will include sight singing, aural skills, improvisation and the preparation of a short musical excerpt.

Transferable: CSU; UC

C-ID: C-ID MUS 180; C-ID MUS 185

This course is a vocal jazz ensemble of limited size which focuses on a wide variety of music in the jazz style. Public performance, festivals and field trips may be required. This course may be taken up to four times for credit.

MUP 401 Advanced Vocal Jazz Ensemble

Units: 1 - 2

Hours: 9 - 18 hours LEC; 27 - 54 hours LAB

Prerequisite: MUP 400 with a grade of "C" or better

Enrollment Limitation: Audition is required. The audition will include sight-singing, aural skills, improvisation, and the preparation of a short musical excerpt.

Transferable: CSU; UC

C-ID: C-ID MUS 180; C-ID MUS 185

This course is the continuing study of vocal jazz ensemble repertoire and techniques. Additional topics include experiences in scat singing, conducting, rehearsal techniques, and leading small-group breakout practice sessions. Public performance, festivals, recording sessions, and field trips may be required. This course may be taken up to four times for credit.

MUP 420 Special Ensemble Participation

Units: 1 - 2

Hours: 9 - 18 hours LEC; 27 - 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Audition

Transferable: CSU; UC

C-ID: C-ID MUS 185

This course is open to all students who sing or play musical instruments. Studies are designed for instrumental and vocal groups of various combinations. Students may explore chamber music, large ensemble, or solo repertoire. Public performances and field trips may be required. This course may be taken up to four times for credit.

MUP 428 Mariachi Ensemble

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Ability to play at least one instrument commonly used in Mariachi ensemble; audition required.

Advisory: MUIVI 411

Transferable: CSU; UC

C-ID: C-ID MUS 180; C-ID MUS 185

This course is the study and performance of Mariachi repertoire encompassing styles from traditional music of Mexico. Public performances and field trips may be required. This course may be taken up to four times for credit.

MUP 495 Independent Studies in Music Performance

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

MUP 499 Experimental Offering in Music Performance

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Music - Specializations in Music (MUSM) Courses

MUSM 295 Independent Studies in Music Specializations in Music

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

MUSM 299 Experimental Offering in Music Specializations in Music

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

MUSM 306 Live Sound Reinforcement

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: MUSM 342 with a grade of "C" or better

Transferable: CSU

C-ID: C-ID CMUS 120X

This course provides training on state of the arts skills and trends in live sound productions for concert venues, theaters, places of worship, and schools. Students develop skills in programming and operating multiple advanced digital console systems and digital audio connectivity in addition to more traditional analog systems. Students also develop proficiency in correctly configuring speaker systems that are acoustically appropriate for the venue. Students also gain competency in the areas of mic placement and choice, dynamics operation, and use of effects.

MUSM 311 Introduction to Music Business

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course explores music industry fundamentals, including copyrights, licensing opportunities, recording contracts, and distribution agreements. Students will assess the impact of the Music Modernization Act, analyze streaming models, and develop a personalized Music Industry Career Ladder to understand pathways for professional success in today's evolving music landscape. This course is not open to students who have successfully completed MUSM 110.

MUSM 312 Advanced Music Business

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course examines publishing, synchronization, and merchandising agreements, while exploring the roles of entertainment attorneys, music publishers, merchandisers, sync agents, and music supervisors. Students will analyze publishing companies, assess service mark and trademark applications, and learn essential steps for establishing an administrative publishing company or music business. This course is not open to students who have successfully completed MUSM 111.

MUSM 313 The Business of Music Management

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers the definitions, duties, and agreements of artist management. Topics include the functions of a personal manager, guidelines to career planning, choosing managers and clients, record company negotiations, and selecting other team players. It also analyzes the personal manager agreement and how to organize an artist's tour. This course is not open to students who have successfully completed MUSM 112.

MUSM 314 The Business of Music Marketing

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers the process of music promotion. Topics include definitions of promotion, developing media/industry fan lists, and assembling a promotion packet. This course also discusses current Internet strategies and new technologies developed for promotion. In addition, a campaign for album release and distribution is discussed and planned. This course is not open to students who have successfully completed MUSM 113.

MUSM 320 Contemporary Songwriting

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: MUFHL 321 with a grade of "C" or better

Transferable: CSU; UC

This hands-on songwriting course explores the essential elements of the songwriting process, from techniques for creating song ideas to crafting compelling lyrics with effective meter, rhyming, and a strong narrative arc. Topics explore the fundamentals of song form, melody, harmony, and chord progressions to build listener engagement. Through collaborative writing exercises, students apply these techniques to create songs. Professional topics, such as lead sheets, copyright basics, and copyright registration prepare students for careers in and related to songwriting.

MUSM 321 Contemporary Songwriting

Units: 3

Hours: 54 hours LEC

Prerequisite: MUSM 320 with a grade of "C" or better

Transferable: CSU; UC

This hands-on songwriting course explores the essential elements of the songwriting process by deconstructing the structure and characteristics of successful songs. Students apply these techniques to their own compositions that are peer reviewed by classmates. Students identify and evaluate trends in the music industry and listener preferences and examine the impact of increasing AI content and how that impacts intellectual property and copyright law.

MUSM 334 Introduction to Musical Instrument Digital Interface (MIDI)

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: MUFHL 321 or MUIVI 340

Transferable: CSU

C-ID: C-ID CMUS 100X

This introductory course examines the terminology, hardware, software, techniques, and concepts related to using Musical Instrument Digital Interface (MIDI) and associated music technology. It surveys the principles and practices of sound, MIDI, synthesis, notation, and audio recording, as well as digital audio workstation (DAW) options and configurations.

MUSM 335 Intermediate Musical Instrument Digital Interface (MIDI)

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: MUSM 334 with a grade of "C" or better

Transferable: CSU

This course builds on skills learned in MUSM 334 and introduces intermediate techniques in Musical Instrument Digital Interface (MIDI) and Digital Audio Workstation (DAW) composition and arranging for various styles of music. Topics include integrating MIDI and digital audio, film and video scoring, and the use of sound editing software.

MUSM 342 Recording Studio Techniques I

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

C-ID: C-ID CMUS 130X

This is the first course in a four-part series of Recording Studio Techniques. It covers entry-level techniques in audio/music production, microphone fundamentals and applications, studio equipment, recording console functions, and multitrack recording procedures.

MUSM 344 Recording Studio Techniques II

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: MUSM 342 with a grade of "C" or better

Transferable: CSU

This is the second course in a four-part series of Recording Studio Techniques. It covers intermediate techniques of audio and music production, and introduces mixdown session techniques, outboard gear application, remote recording, and studio design.

MUSM 350 Recording Studio Techniques III

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: MUSM 344 with a grade of "C" or better

Transferable: CSU

This is the third course in a four-part series of Recording Studio Techniques. Topics include studio design and management principles, managing and organizing sessions, and recording, editing, and mixing in a Digital Audio Workstation (DAW) environment.

MUSM 356 Pro Tools 101, Introduction to Pro Tools

Units: 1.5

Hours: 27 hours LEC

Prerequisite: None.

Transferable: CSU

This course is an introduction to Avid's Pro Tools digital audio workstation software application. Basic Pro Tools principles, including how to complete a Pro Tools project from initial set up to final mixdown are covered. It covers how to record, edit, and mix music and Musical Instrument Digital Interface (MIDI) tracks within the Pro Tools application. This course is the first in a series of courses leading to multiple Avid Pro Tools certifications.

MUSM 357 Pro Tools 110 Intermediate Pro Tools

Units: 1.5

Hours: 27 hours LEC

Prerequisite: MUSM 356 with a grade of "C" or better

Transferable: CSU

This is an intermediate-level course in Avid's Pro Tools digital audio workstation hardware and software application. Concepts and skills needed to operate large sessions in a project studio environment are covered. It covers managing large track counts, multiple channels of simultaneous inputs and outputs, and the use of specialized plug-ins for specific music and post-production tasks. This course is the second in a series of courses leading to multiple Avid Pro Tools certifications.

MUSM 361 Advanced Studio Sessions

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: MUSM 350 with a grade of "C" or better

Transferable: CSU

This course focuses on expanding the skills mastered in MUSM 350 by offering studio recording sessions that are entirely student-planned, organized, and completed. Students select appropriate equipment for the project and configure preamps, compressors, and cat5 based headphone mixers. Students use automation and outboard equipment to complete tracking, mixing, and mastering using analog tape and Pro Tools HDX.

MUSM 362 Mixing and Mastering Music Projects

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: MUSM 350, 356, and 357 with grades of "C" or better

Transferable: CSU

This course introduces the methods used to create professional mixes from multi-track master recordings in analog or digital formats. Advanced techniques in equalization, spatial placement, automation, and reverberation are investigated. Lab work is regularly presented in class for critical evaluation. A routine component of the course is listening exercises to develop critical listening skills. The Music Department's Avid Pro Tools HD Digital Audio Workstation is be used for mixing projects. A final mix project is then be mastered and converted into a number of possible final output formats including various streaming platforms.

MUSM 366 Pro Tools 201, Advanced Pro Tools

Units: 1.5

Hours: 27 hours LEC

Prerequisite: MUSM 344 and 357 with grades of "C" or better

Transferable: CSU

This is an advanced-level course in Avid's Pro Tools digital audio workstation hardware and software application. Topics include the core concepts and skills needed to operate a Pro Tools HD system in a professional studio environment.

Advanced recording, editing, and mixing techniques are presented. This course is the third in a series of courses leading to multiple Avid Pro Tools certifications.

MUSM 367 Audio for Video Post Production

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: MUSM 344 with a grade of "C" or better

Transferable: CSU

This course introduces post production, the art and science of adding sound to picture for television, feature films, and commercials. Pro Tools digital audio workstation environment, sound design, foley, scoring, dialog editing, and mixing skills will be demonstrated.

MUSM 495 Independent Studies in Music Specializations

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for students to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

MUSM 499 Experimental Offering in Music Specializations in Music

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Natural Resources

Overview

Environmental Conservation is an interdisciplinary program that advances understanding of ecological systems and their interrelationships, including those with human society. Core study involves plant and animal ecology and natural history, field methods and study design, and conservation and management of ecosystems and natural resources. Students are able to focus their studies in conservation and sustainability; plant ecology, conservation and management; and/or vertebrate ecology, conservation and management. This program covers a wide range of environmental studies, provides many unique opportunities for hands-on and real-world field experience, and prepares students for a variety of careers as well as transfer at the upper division level to academic programs involving environmental sciences.

The Natural Resources Department within the Science & Engineering Division has developed new A.S. degree and certificate programs in Environmental Conservation that recognize the change in emphasis in this field's academics and job market.

An increasing number of sectors of the labor market in California, the U.S., and beyond, require knowledge and skills emphasizing conservation and management of plant and animal populations and their habitats, sustainable resource use, and an enhanced understanding of the environment. This program prepares students for entry-level work in a variety of industries and settings, including private firms, nonprofit organizations, and government agencies at the local, state, and federal levels. Students receive not only rigorous instruction in the theory and application of environmental sciences but unique hands-on training as well.

Degrees and Certificates Offered

A.S. in Environmental Conservation

A.S. in General Science

Environmental Conservation Certificate

Environmental Conservation Technician (Fisheries) Certificate

Environmental Conservation Technician (Sustainability) Certificate

Environmental Conservation Technician (Vegetation) Certificate

Environmental Conservation Technician (Wildlife) Certificate

Environmental Conservation Technician (Conservation/ Restoration) Certificate

Environmental Conservation Technician (Forest/Rangeland) Certificate

Environmental Conservation Technician (Water Resources) Certificate

Dean: Joel Keebler
Department Chair: Jennifer Neale
Phone: (916) 484-8107
Email: askhb-STEM@arc.losrios.edu

Associate Degrees

A.S. in Environmental Conservation

Environmental Conservation is an interdisciplinary program that advances the understanding of ecological systems and their interrelationships, including those with human society. Core study involves plant and animal ecology and natural history, field methods and study design, and conservation and management of ecosystems and natural resources. Students have the opportunity to choose among courses in the areas of conservation and sustainability; plant ecology, conservation, and management; and vertebrate ecology, conservation and management. This program covers a wide range of environmental studies, provides many unique opportunities for hands-on and real-world field experience, and prepares students for a variety of careers as well as transfer at the upper division level to academic programs involving environmental sciences.

Degree Requirements

Course Code	Course Title	Units
BIOL 300	The Foundations of Biology (3)	3 - 5
or BIOL 301	Evolution (3)	
or BIOL C1000	Introduction to Biology with Lab (4)	
or BIOL 310	General Biology (4)	
or BIOL 400	Principles of Biology (5)	
NATR 300	Introduction to Natural Resource Conservation and Policy	4
NATR 310	Study Design and Field Methods	4
NATR 320	Principles of Ecology	4
A minimum of 16 units from the following:		16
BIOL 305	Natural History (4)	
BIOL 332	Introduction to Ornithology (4)	
or NATR 301	Introduction to Ornithology (4)	
BIOL 352	Conservation Biology (3)	
BIOL 370	Marine Biology (4)	
GEOG 300	Physical Geography: Exploring Earth's Environmental Systems (3)	
GEOG 330	Introduction to Geographic Information Systems (3)	
GEOL 300	Physical Geology (3)	
HORT 302	Soils, Soil Management, and Plant Nutrition (3)	
NATR 302	Introduction to Wildlife Biology (4)	
NATR 303	Energy and Sustainability (3)	
NATR 304	The Forest Environment (3)	
NATR 305	Fisheries Ecology and Management (4)	
NATR 306	Introduction to Rangeland Ecology and Management (4)	
NATR 307	Principles of Sustainability (4)	
NATR 322	Environmental Restoration (3)	
NATR 324	Field Studies: Birds and Plants of the High Sierra (2)	
NATR 330	Native Trees and Shrubs of California (4)	
NATR 332	Wildflowers of California (4)	
NATR 346	Water Resources and Conservation (3)	
NATR 495	Independent Studies in Natural Resources (1 - 3)	
NATR 498	Work Experience in Natural Resources (0.5 - 4)	
NATR 499	Experimental Offering in Natural Resources (0.5 - 4)	
Total Units:		**31 - 33**

The Environmental Conservation Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply scientific methodologies and critical analysis to environmental investigations.
- evaluate natural resource systems, including their past and present use and management, and future sustainability.
- analyze social, ethical, and biological implications of environmental management alternatives.
- identify ecological phenomena in one's everyday experiences and apply ecological principles to understand local, national, and global environmental issues.
- assess the relationships of plants and animals to their environment and to each other.
- measure, analyze, and monitor biological and physical components of the environment.
- evaluate basic land survey, water quality, soils, vegetation, and wildlife data.
- examine the significance of biodiversity conservation.

Career Information

An increasing number of sectors of the labor market in California, the U.S., and beyond, require knowledge and skills emphasizing conservation and management of plant and animal populations and their habitats, sustainable resource use, and an enhanced understanding of the environment. This program prepares students for entry-level work in a variety of industries and settings, including private firms, nonprofit organizations, and government agencies at the local, state, and federal levels. Students receive not only rigorous instruction in the theory and application of environmental sciences, but also unique hands-on training.

A.S. in General Science

This program provides a broad study in the fields of biological and physical sciences in preparation for transfer to a four-year program and continuation of studies in upper division science courses.

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18[1]
Physical Science Courses		
ASTR C1001	Introduction to Astronomy (3)	
ASTR 310	The Solar System (3)	
ASTR 320	Stars, Galaxies, and Cosmology (3)	
ASTR 330	Introduction to Astrobiology (3)	
ASTR C1001L	Introduction to Astronomy Lab (1)	
ASTR 481	Honors Astronomy: Stars, Galaxies, and Cosmology (4)	
ASTR 495	Independent Studies in Astronomy (1 - 3)	
ASTR 499	Experimental Offering in Astronomy (0.5 - 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 310	Chemical Calculations (4)	
CHEM 338	Chemistry In Your World (3)	
CHEM 400	General Chemistry I (5)	
CHEM 401	General Chemistry II (5)	
CHEM 420	Organic Chemistry I (5)	
CHEM 421	Organic Chemistry II (5)	
CHEM 423	Organic Chemistry - Short Survey (5)	
CHEM 495	Independent Studies in Chemistry (1 - 3)	
CHEM 499	Experimental Offering in Chemistry (0.5 - 4)	
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)	
GEOG 307	Environmental Hazards and Natural Disasters (3)	
GEOG 308	Introduction to Oceanography (3)	
GEOG 309	Introduction to Oceanography Lab (1)	
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 495	Independent Studies in Geography (1 - 3)	
GEOG 499	Experimental Offering in Geography (0.5 - 4)	
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)	

Course Code	Course Title	Units
GEOL 311	Historical Geology Laboratory (1)	
GEOL 320	Global Climate Change (3)	
GEOL 325	Environmental Hazards and Natural Disasters (3)	
GEOL 330	Introduction to Oceanography (3)	
GEOL 331	Introduction to Oceanography Lab (1)	
GEOL 345	Geology of California (3)	
GEOL 392	Field Studies in Mountain Landscapes (1 - 4)	
GEOL 393	Field Studies in Coastal Landscapes (1 - 4)	
GEOL 394	Field Studies in Volcanic Landscapes (1 - 4)	
GEOL 495	Independent Studies in Geology (1 - 3)	
GEOL 499	Experimental Offering in Geology (0.5 - 4)	
PHYS 310	Conceptual Physics (3)	
PHYS 311	Basic Physics (3)	
PHYS 312	Conceptual Physics Laboratory (1)	
PHYS 350	General Physics (4)	
PHYS 360	General Physics (4)	
PHYS 410	Mechanics of Solids and Fluids (5)	
PHYS 421	Electricity and Magnetism (4)	
PHYS 431	Heat, Waves, Light and Modern Physics (4)	
PHYS 495	Independent Studies in Physics (1 - 3)	
PHYS 499	Experimental Offering in Physics (0.5 - 4)	
Biological Science Courses		
ANTH 300	Biological Anthropology (3)	
ANTH 301	Biological Anthropology Laboratory (1)	
ANTH 303	Introduction to Forensic Anthropology (3)	
ANTH 370	Primatology (3)	

Course Code	Course Title	Units
ANTH 480	Honors Biological Anthropology (3)	
ANTH 495	Independent Studies in Anthropology (1 - 3)	
ANTH 499	Experimental Offering in Anthropology (0.5 - 4)	
BIOL 300	The Foundations of Biology (3)	
BIOL 301	Evolution (3)	
BIOL C1000	Introduction to Biology with Lab (4)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
BIOL 305	Natural History (4)	
BIOL 310	General Biology (4)	
BIOL 322	Ethnobotany (3)	
BIOL 332	Introduction to Ornithology (4)	
BIOL 342	The New Plagues: New and Ancient Infectious Diseases Threatening World Health (3)	
BIOL 352	Conservation Biology (3)	
BIOL 370	Marine Biology (4)	
BIOL 375	Marine Ecology (3)	
BIOL 390	Natural History Field Study (0.5 - 4)	
BIOL 400	Principles of Biology (5)	
BIOL 410	Principles of Botany (5)	
BIOL 415	Introduction to Biology: Biodiversity, Evolution, and Ecology (5)	
BIOL 420	Principles of Zoology (5)	
BIOL 430	Anatomy and Physiology (5)	
BIOL 431	Anatomy and Physiology (5)	
BIOL 440	General Microbiology (4)	
BIOL 442	General Microbiology and Public Health (5)	
BIOL 482	Honors Marine Biology (4)	

Course Code	Course Title	Units
BIOL 495	Independent Studies in Biology (1 - 3)	
BIOL 499	Experimental Offering in Biology (0.5 - 4)	
BIOT 301	Biotechnology and Human Health (3)	
BIOT 305	Introduction to Bioinformatics (1)	
BIOT 307	Biotechnology and Society (2)	
BIOT 311	Biotechnology Laboratory Methods - Molecular Techniques (2)	
BIOT 312	Biotechnology Laboratory Methods - Microbial and Cell Culture Techniques (2)	
BIOT 499	Experimental Offering in Biology (0.5 - 4)	
NATR 300	Introduction to Natural Resource Conservation and Policy (4)	
NATR 301	Introduction to Ornithology (4)	
NATR 302	Introduction to Wildlife Biology (4)	
NATR 303	Energy and Sustainability (3)	
NATR 304	The Forest Environment (3)	
NATR 305	Fisheries Ecology and Management (4)	
NATR 306	Introduction to Rangeland Ecology and Management (4)	
NATR 307	Principles of Sustainability (4)	
NATR 310	Study Design and Field Methods (4)	
NATR 320	Principles of Ecology (4)	
NATR 322	Environmental Restoration (3)	
NATR 324	Field Studies: Birds and Plants of the High Sierra (2)	
NATR 330	Native Trees and Shrubs of California (4)	
NATR 332	Wildflowers of California (4)	
NATR 346	Water Resources and Conservation (3)	
NATR 495	Independent Studies in Natural Resources (1 - 3)	
NATR 499	Experimental Offering in Natural Resources (0.5 - 4)	
PSYC 310	Biological Psychology (3)	
PSYC 311	Biological Psychology Laboratory (1)	
Total Units:		**18**

[1]must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science

The General Science Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate new and accepted ideas about the natural universe using scientific methods.
- analyze a wide variety of natural phenomena using basic definitions and fundamental theories of biological or physical sciences.
- apply appropriate quantitative and qualitative methods to interpret and analyze pertinent data.
- outline the basic concepts and fundamental theories of a natural science.
- articulate orally and/or in writing the importance of continuous examination and modification of accepted ideas as a fundamental element in the progress of science.
- discuss ethical components of scientific decision making and apply personal and social values within the process of decision making in scientific endeavors.

Certificates of Achievement

Environmental Conservation Certificate

Environmental Conservation is an interdisciplinary program that advances the understanding of ecological systems and their interrelationships, including those with human society. Core study involves plant and animal ecology and natural history, field methods and study design, and conservation and management of ecosystems and natural resources. Students have the opportunity to choose among courses in the areas of conservation and sustainability; plant ecology, conservation, and management; and vertebrate ecology, conservation, and management. This program covers a wide range of

environmental studies, provides many unique opportunities for hands-on and real-world field experience, and prepares students for a variety of entry-level positions in the area of environmental sciences and natural resources as well as transfer at the upper division level to academic programs involving environmental sciences.

Certificate Requirements

Course Code	Course Title	Units
NATR 300	Introduction to Natural Resource Conservation and Policy	4
NATR 310	Study Design and Field Methods	4
NATR 320	Principles of Ecology	4
A minimum of 10 units from the following:		10
BIOL 332	Introduction to Ornithology (4)	
or NATR 301	Introduction to Ornithology (4)	
NATR 302	Introduction to Wildlife Biology (4)	
NATR 303	Energy and Sustainability (3)	
NATR 304	The Forest Environment (3)	
NATR 305	Fisheries Ecology and Management (4)	
NATR 306	Introduction to Rangeland Ecology and Management (4)	
NATR 307	Principles of Sustainability (4)	
NATR 322	Environmental Restoration (3)	
NATR 324	Field Studies: Birds and Plants of the High Sierra (2)	
NATR 330	Native Trees and Shrubs of California (4)	
NATR 332	Wildflowers of California (4)	
NATR 346	Water Resources and Conservation (3)	
NATR 495	Independent Studies in Natural Resources (1 - 3)	
NATR 498	Work Experience in Natural Resources (0.5 - 4)	
NATR 499	Experimental Offering in Natural Resources (0.5 - 4)	
Total Units:		**22**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply scientific methodologies and critical analysis to environmental investigations.
- evaluate natural resource systems, including their past and present use and management, and future sustainability.
- analyze social, ethical, and biological implications of environmental management alternatives.
- identify ecological phenomena in one's everyday experiences and apply ecological principles to understand local, national and global environmental issues.
- assess the relationships of plants and animals to their environment and to each other.
- measure, analyze, and monitor biological and physical components of the environment.
- evaluate basic land survey, water quality, soils, vegetation, and wildlife data.
- examine the significance of biodiversity conservation.

Career Information

An increasing number of sectors of the labor market in California, the U.S., and beyond, require knowledge and skills emphasizing conservation and management of plant and animal populations and their habitats, sustainable resource use, and an enhanced understanding of the environment. This program prepares students for entry-level work in a variety of industries and settings, including private firms, nonprofit organizations, and government agencies at the local, state, and federal levels. Students receive not only rigorous instruction in the theory and application of environmental sciences, but also unique hands-on training.

Environmental Conservation Technician (Fisheries) Certificate

This certificate advances the understanding of ecological systems and their interrelationships, including those with human society. It focuses on ecology, field methods and study design, and conservation and management of ecosystems and natural resources, with an emphasis on fish evolution, ecology, conservation and management. Marine and freshwater fisheries, their impacts on society and the environment, and sustainability issues are investigated, including environmental, ecological, economic, and social aspects. Commercial and recreational fisheries management and aquaculture are also explored.

Certificate Requirements

Course Code	Course Title	Units
NATR 300	Introduction to Natural Resource Conservation and Policy	4
NATR 305	Fisheries Ecology and Management	4
NATR 310	Study Design and Field Methods	4
NATR 320	Principles of Ecology	4
Total Units:		**16**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply the scientific method and critical analysis to environmental investigations
- evaluate natural resource systems, including their past and present use and management and future sustainability
- analyze social, ethical, and biological implications of environmental management alternatives
- identify ecological phenomena in one's everyday experiences and apply ecological principles to understand local, national and global environmental issues
- assess the relationships of plants and animals to their environment and to each other
- measure and analyze the physical environment of plant and animal populations
- evaluate basic land survey, water quality, vegetation, and wildlife data
- examine the significance of biodiversity conservation
- analyze aspects of fish evolution and ecology important to their management and synthesize basic parameters of fish population dynamics in terms of rate functions and limiting factors
- analyze function and dynamics of freshwater and marine communities, emphasizing those in temperate North America, and their associated fisheries management issues
- interpret fisheries management data, define management problems and stakeholders involved, and suggest appropriate strategies to reach management objectives

Career Information

This program prepares students for entry-level fisheries ecologist aide/technician positions in a variety of industries and settings, including private firms, nonprofit organizations, educational institutions, and government agencies at the local, state, and federal levels. Students receive not only rigorous instruction in the theory and application of environmental sciences but also unique hands-on training in fisheries ecology, conservation, and management. Students prepare for positions in areas such as fisheries conservation and management, basic fish biology research, and aquatic habitat restoration.

Environmental Conservation Technician (Sustainability) Certificate

This certificate advances the understanding of ecological systems and their interrelationships, including those with human society. It focuses on ecology, field methods and study design, and conservation and management of ecosystems and natural resources, with an emphasis on sustainability. Theoretical and practical aspects of sustainability are explored including social, economic, and environmental dimensions. Sustainable principles and practices are examined in the context of energy production and consumption, transportation systems, food production, water resources, industry, and the built environment. Environmental as well as social and cultural impacts of industrialization, capitalism, and globalization are addressed at various scales, and potential solutions to current problems are discussed.

Certificate Requirements

Course Code	Course Title	Units
NATR 300	Introduction to Natural Resource Conservation and Policy	4
NATR 303	Energy and Sustainability (3)	3 - 4
or NATR 307	Principles of Sustainability (4)	
NATR 310	Study Design and Field Methods	4
NATR 320	Principles of Ecology	4
Total Units:		**15 - 16**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply the scientific method and critical analysis to environmental investigations
- evaluate natural resource systems, including their past and present use and management and future sustainability
- analyze social, ethical, and biological implications of environmental management alternatives
- identify ecological phenomena in one's everyday experiences and apply ecological principles to understand local, national, and global environmental issues
- assess the relationships of plants and animals to their environment and to each other
- measure and analyze the physical environment of plant and animal populations
- evaluate basic land survey, water quality, vegetation, and wildlife data
- examine the significance of biodiversity conservation
- examine technological, geographic, socioeconomic, cultural, and environmental considerations of alternative forms of energy production
- investigate theoretical and practical aspects of sustainability in the context of energy consumption, transportation systems, food production, water resources, industry, the built environment, and socio-cultural institutions and practices

Career Information

This program prepares students for entry-level sustainability consultant/technician positions in a variety of industries and settings, including private firms, nonprofit organizations, educational institutions, and government agencies at the local, state, and federal levels. Work opportunities for program graduates include positions in environmental economics, sustainable business practices, green building, as well as sustainable communities, food systems, energy, and transportation.

Environmental Conservation Technician (Vegetation) Certificate

This certificate advances the understanding of ecological systems and their interrelationships, including those with human society. It focuses on ecology, field methods and study design, and conservation and management of ecosystems and natural resources, with an emphasis on woody and herbaceous vegetation. Major topics include plant taxonomy, natural history and life cycle, physiology, evolution, human uses of--and threats to--California native plant communities and their component species.

Certificate Requirements

Course Code	Course Title	Units
NATR 300	Introduction to Natural Resource Conservation and Policy	4
NATR 310	Study Design and Field Methods	4
NATR 320	Principles of Ecology	4
NATR 330	Native Trees and Shrubs of California (4)	4
or NATR 332	Wildflowers of California (4)	
Total Units:		**16**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply the scientific method and critical analysis to environmental investigations
- evaluate natural resource systems, including their past and present use and management and future sustainability
- analyze social, ethical, and biological implications of environmental management alternatives
- identify ecological phenomena in one's everyday experiences and apply ecological principles to understand local, national and global environmental issues
- assess the relationships of plants and animals to their environment and to each other
- measure and analyze the physical environment of plant and animal populations
- evaluate basic land survey, water quality, vegetation, and wildlife data
- examine the significance of biodiversity conservation
- assess the structure and function of vegetative communities of California
- interpret plant keys and develop skills in their use in plant identification
- collect and prepare a plant collection of representative native California plants
- analyze plant adaptations and environmental gradients in a variety of ecosystems
- investigate the implications of plant conservation, restoration, and community management alternatives

Career Information

This program prepares students for entry-level plant ecologist aide/technician positions in a variety of industries and settings, including private firms, nonprofit organizations, educational institutions, and government agencies at the local, state, and federal levels. Students receive not only rigorous instruction in the theory and application of environmental sciences but also unique hands-on training in plant identification, ecology, conservation, and management. Skills developed support student preparation for positions related to plant taxonomy, dendrology, research and management (e.g., of California endemics, unique environments such as vernal pools, invasive species, etc.) and environmental restoration.

Environmental Conservation Technician (Wildlife) Certificate

This certificate advances the understanding of ecological systems and their interrelationships, including those with human society. It focuses on ecology, field methods and study design, and conservation and management of ecosystems and natural resources, with an emphasis on vertebrate wildlife. Major topics include population ecology; community dynamics; wildlife habitat; management of game, invasive, and non-game species; conservation of threatened and endangered wildlife; and theoretical and practical tools and methods for studying wildlife, such as sampling techniques, population modeling, habitat assessment, radiotelemetry, and remote sensing.

Certificate Requirements

Course Code	Course Title	Units
NATR 300	Introduction to Natural Resource Conservation and Policy	4
NATR 301	Introduction to Ornithology (4)	4
or BIOL 332	Introduction to Ornithology (4)	
or NATR 302	Introduction to Wildlife Biology (4)	
NATR 310	Study Design and Field Methods	4
NATR 320	Principles of Ecology	4
Total Units:		**16**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply the scientific method and critical analysis to environmental investigations.
- evaluate natural resource systems, including their past and present use and management and future sustainability.
- analyze social, ethical, and biological implications of environmental management alternatives.
- identify ecological phenomena in one's everyday experiences and apply ecological principles to understand local, national and global environmental issues.
- assess the relationships of plants and animals to their environment and to each other.
- measure and analyze the physical environment of plant and animal populations.
- evaluate basic land survey, water quality, vegetation, and wildlife data.
- examine the significance of biodiversity conservation.
- apply and compare various wildlife habitat and population assessment techniques across a variety of environmental settings.
- interpret wildlife population data and construct a population model, evaluating alternative wildlife management decisions based on computer-simulation results.
- evaluate alternative wildlife management decisions in the context of ecosystem dynamics as well as and social/cultural and economic considerations.

Career Information

This program prepares students for entry-level wildlife biologist aide/technician positions in a variety of industries and settings, including private firms, nonprofit organizations, educational institutions, and government agencies at the local, state, and federal levels. Students receive not only rigorous instruction in the theory and application of environmental sciences but also unique hands-on training in wildlife ecology, conservation, and management. Participants develop skills appropriate for positions dealing with aspects of wildlife such as population sampling and monitoring, data analysis, and management/conservation of threatened, endangered, and invasive species of wildlife.

Certificates

Environmental Conservation Technician (Conservation/Restoration) Certificate

This certificate advances the understanding of ecological systems and their interrelationships, including those with human society. It focuses on ecology, field methods and study design, and conservation and management of ecosystems and natural resources, with an emphasis on environmental restoration theory and practice and global and emerging environmental and conservation issues. Topics include both the causes of ecological degradation and biodiversity loss, as well as the science of development, management, monitoring, and sustainability of restored environments. Conservation priorities and emerging environmental concerns are investigated, such as climate change, energy production, socioeconomic systems, human population, disease dynamics, species extinctions, invasive species, stresses on water resources and food-producing systems,and over-exploitation of natural resources. Emphasis is placed on development of strategies for the establishment of protected areas, monitoring and adaptive management, and conservation outside of protected areas, as well as an understanding of biodiversity at genetic, species, and community/ecosystem levels.

Certificate Requirements

Course Code	Course Title	Units
NATR 300	Introduction to Natural Resource Conservation and Policy	4
NATR 310	Study Design and Field Methods	4
NATR 320	Principles of Ecology	4
BIOL 352	Conservation Biology (3)	3
or NATR 322	Environmental Restoration (3)	
Total Units:		**15**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply the scientific method and critical analysis to environmental investigations
- evaluate natural resource systems, including their past and present use and management and future sustainability
- analyze social, ethical, and biological implications of environmental management alternatives
- identify ecological phenomena in one's everyday experiences and apply ecological principles to understand local, national and global environmental issues
- assess the relationships of plants and animals to their environment and to each other
- measure and analyze the physical environment of plant and animal populations
- evaluate basic land survey, water quality, vegetation, and vertebrate wildlife data
- investigate restoration ecology theory and assess and apply restoration practices to real-world environmental restoration problems
- identify global and emerging environmental issues and evaluate potential impacts and possible solutions
- examine biodiversity in terms of biological structure, composition, and function at the genetic, species, ecosystem and landscape levels
- apply fundamental biological and ecological concepts to the examination of critical biological conservation issues

Career Information

This program prepares students for entry-level conservation/restoration aide/technician positions in a variety of industries and settings, including private firms, nonprofit organizations, educational institutions, and government agencies at the local, state, and federal levels. Students receive not only rigorous instruction in the theory and application of environmental sciences but also unique hands-on training in conservation and restoration. Potential job opportunities include work in the areas of survey/monitoring of threatened and endangered species and habitats, planning and execution of restoration projects, climate change adaptation for human communities, conservation advocacy, and other fields.

Environmental Conservation Technician (Forest/Rangeland) Certificate

This certificate advances the understanding of ecological systems and their interrelationships, including those with human society. It focuses on ecology, field methods and study design, and conservation and management of ecosystems and natural resources, with an emphasis on forests and rangelands. Basic biological and physical science concepts important to a general understanding of forest and rangeland/grassland ecology, forestry, and grazing by native herbivores and livestock are investigated. History of use and management, taxonomy and ecology of plant communities, soils, pests and diseases, and disturbance regimes of forested landscapes and rangelands are explored. Classes assess current policies, multiple-use management, and emerging threats related to forest and rangeland conservation.

Certificate Requirements

Course Code	Course Title	Units
NATR 300	Introduction to Natural Resource Conservation and Policy	4
NATR 304	The Forest Environment (3)	3 - 4
or NATR 306	Introduction to Rangeland Ecology and Management (4)	
NATR 310	Study Design and Field Methods	4
NATR 320	Principles of Ecology	4
Total Units:		**15 - 16**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply the scientific method and critical analysis to environmental investigations
- evaluate natural resource systems, including their past and present use and management and future sustainability
- analyze social, ethical, and biological implications of environmental management alternatives
- identify ecological phenomena in one's everyday experiences and apply ecological principles to understand local, national and global environmental issues
- assess the relationships of plants and animals to their environment and to each other
- measure and analyze the physical environment of plant and animal populations
- evaluate basic land survey, water quality, vegetation, and wildlife data
- examine the significance of biodiversity conservation
- analyze important characteristics, processes, and stressors of population, community, and ecosystem dynamics of forest/rangeland environments
- evaluate social, ethical, and biological implications of forest/rangeland conservation and management alternatives, including impacts of grazing and forestry

Career Information

This program prepares students for entry-level forest/rangeland ecologist aide/technician positions in a variety of industries and settings, including private firms, nonprofit organizations, educational institutions, and government agencies at the local, state, and federal levels. Students receive not only rigorous instruction in the theory and application of environmental sciences but also unique hands-on training in forest/rangeland ecology, conservation, and management. This program prepares students for work in forestry, conservation, land management, grassland and forest ecological research, and other fields.

Environmental Conservation Technician (Water Resources) Certificate

This certificate advances the understanding of ecological systems and their interrelationships, including those with human society. It focuses on ecology, field methods and study design, and conservation and management of ecosystems and natural resources, with an emphasis on water resources. It provides a historical perspective on water development and explores current and projected water issues. Surface water and groundwater systems are considered, with an emphasis on the interdisciplinary nature of sustainable water resource management that balances urban, agricultural, industrial, and environmental water needs. The implications of water rights and key water policies are considered in evaluating how water is used and exploited.

Certificate Requirements

Course Code	Course Title	Units
NATR 300	Introduction to Natural Resource Conservation and Policy	4
NATR 310	Study Design and Field Methods	4
NATR 320	Principles of Ecology	4
NATR 346	Water Resources and Conservation	3
Total Units:		**15**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply the scientific method and critical analysis to environmental investigations
- evaluate natural resource systems, including their past and present use and management and future sustainability
- analyze social, ethical, and biological implications of environmental management alternatives
- identify ecological phenomena in one's everyday experiences and apply ecological principles to understand local, national and global environmental issues
- assess the relationships of plants and animals to their environment and to each other
- measure and analyze the physical environment of plant and animal populations
- evaluate basic land survey, water quality, vegetation, and wildlife data
- examine the significance of biodiversity conservation
- describe the hydrologic cycle in both natural and urban environments, including key characteristics of surface water and groundwater resources and the interactions between these
- investigate the components of integrated water resources planning and management, including evaluation of water policy initiatives and determination of water rights
- analyze future water sustainability scenarios under uncertain conditions, including impacts of drought and climate change

Career Information

This program prepares students for entry-level water resources aide/technician positions in a variety of industries and settings, including private firms, nonprofit organizations, educational institutions, and government agencies at the local, state, and federal levels. Students receive not only rigorous instruction in the theory and application of environmental sciences but also unique hands-on training in water resources conservation and management, preparing them for positions in environmental consulting and planning, water conservation, hydrological research, and other fields.

Natural Resources (NATR) Courses

NATR 294 Topics in Natural Resources

Units: 0.5 - 5

Hours: 9 - 72 hours LEC

Prerequisite: None.

Current topics in natural resources conservation and management not covered by regular catalog offerings are examined. Topics and field locations vary, including advanced subjects related to wildlife, fisheries, soil and water resources, conservation biology, forest resources and management, restoration ecology and aquatic ecology. Field trips may be required.

NATR 300 Introduction to Natural Resource Conservation and Policy

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L5

C-ID: C-ID ENVS 100

This course provides a survey of concepts, issues, management approaches, laws and regulations relevant to Earth's natural resources, such as soils, water, wildlife, fisheries, rangelands, and forests, with a focus on their sustainable management and conservation. It integrates over-exploitation, pollution, land use, and waste issues throughout the course, and explores principles, problems, and potential solutions in the context of ecology, economics, and ethics. This course stresses critical thinking, the scientific method and ecological dynamics as it deals with past, present, and future natural resource issues. Major themes include sustainability and global environmental problems as well as environmental laws and policies. Field labs may be required.

NATR 301 Introduction to Ornithology

Same As: BIOL 332

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

This introductory course covers the biology and natural history of birds. Topics include evolutionary origins of birds and of flight, avian anatomy and physiology, and bird behavior, such as migration, song, feeding ecology, and mating systems. Conservation strategies are also investigated. Laboratory work explores bird structure and function, taxonomic classification, and species identification, particularly of those found in California and the western United States. Field trips may be required. This course is not open to students who have completed BIOL 332.

NATR 302 Introduction to Wildlife Biology

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

This course is an introduction to the science of wildlife biology and the basic principles and techniques involved in wildlife research, conservation, and management. It includes the history of the field, an introduction to vertebrate wildlife, and the foundational aspects of ecology and evolution. Field exploration of and methods used in vertebrate wildlife ecology, along with conservation of and threats to wildlife and biodiversity are highlighted. Additional topics include wildlife as individual animals in populations, populations in communities, and interactions and processes of ecosystems; wildlife habitat; invertebrate wildlife; behavior; population dynamics; life history and reproduction; movements, spatial organization and range limits; and interspecific interactions. Field trips are required.

NATR 303 Energy and Sustainability

Same As: ENERGY 303

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra; NATR 300, or an equivalent transferable life science course; and eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L5

This course investigates fundamentals of energy and impacts of energy systems on society and the environment. It explores energy resources, efficiency, conservation, and emerging technologies. Specifically addressed are mechanics, advantages, disadvantages, and sustainability of current and future energy systems. This course also focuses on economic, cultural, political, and environmental aspects of energy production and consumption in the context of the built environment, transportation, food systems, manufacturing, and public services. Field trips may be required. This course is not open to students who have completed ENERGY 303 or ET 303.

NATR 304 The Forest Environment

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L5

This course covers basic biological and physical science concepts important to a general understanding of forest ecology and forestry. It investigates tree anatomy and basic physiology, forest types and distributions across the Earth, ecological processes and species adaptations, forests of the United States and the history of their use, California forests and major tree species, soils, fire ecology and natural selection, and pests and diseases of forest trees. Additional topics include the role of fire in forest management, the science of silviculture and forestry, forest management and harvest techniques, history of the forest conservation movement, and current issues and policies related to forest resource use. Field trips are required.

NATR 305 Fisheries Ecology and Management

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU

General Education: Local GE L5

This course covers the fundamentals of marine and freshwater fish biology, including investigations into fish anatomy, life history, population dynamics, ecology, and ecosystems. Students apply fish biology to the management of fish and fisheries, and their impacts on society and the environment. An experimental approach is taken, emphasizing scientific inquiry and hypothesis testing to understand both the biology of fish and effective management of fisheries and aquatic habitats. Fisheries' sustainability issues are investigated, including interdisciplinary biology, chemistry, environmental, ecological, economic, and social aspects. Field trips are required.

NATR 306 Introduction to Rangeland Ecology and Management

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L5

This course introduces the science of range ecology and management. It covers ecological principles that apply to rangeland ecosystems and their conservation and management, as well as the history of rangelands and their management. This course focuses on the interactions among the different components of rangelands: soils, plants, non-human animals, and people. The effects of different management systems on ecosystem services provided by rangelands are studied, including food, fiber, fuel, water, habitat, and carbon sequestration. In addition, it explores current issues and research surrounding rangeland conservation, sustainability, restoration, and climate change. Field trips may be required.

NATR 307 Principles of Sustainability

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

Theoretical and practical aspects of sustainability are explored including social, economic, and environmental dimensions. Sustainable principles and practices are examined in the context of energy production and consumption, transportation systems, food production, water resources, industry, and the built environment. The environmental as well as social and cultural impact of industrialization is addressed, and solutions to current problems are discussed. Field trips may be required.

NATR 310 Study Design and Field Methods

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L5

This course addresses both descriptive and experimental approaches to environmental science field studies, including study design and field methods important to the field of natural resources. It covers basic statistical approaches and sampling designs and introduces a variety of sampling and monitoring protocols and techniques. Field labs provide practice with a variety of hands-on methods for vertebrate study, vegetation assessment, land survey, and aquatic studies including water quality assessment. Specific portions of the course focus on (1) survey skills including distance and direction measurement, topographic map reading, and Geographic Information Systems (GIS); (2) woody and herbaceous vegetation sampling strategies such as transect and quadrat, and habitat assessment; (3) methods used in terrestrial vertebrate wildlife studies, such as radio telemetry, remote cameras, and live-trapping; and (4) techniques specific

to aquatic ecology and water quality measurements. It also includes applications of GIS and Global Positioning Systems (GPS). Field trips may be required.

NATR 320 Principles of Ecology

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B; Cal-GETC Area 5C

This course investigates ecology--the the study of the interactions that determine the distribution and abundance of organisms--in a broad context that includes multiple spatial scales and levels of integration. A key feature of course content is an ecological approach that recognizes current global conditions and drivers of rapid change (i.e., ecology in the Anthropocene). Emphasis is also placed on the application of quantitative tools in ecology and the intersection between ecology and evolution. Additional areas of focus include individual physiology and behavior, populations, the many forms of species interactions and multispecies food webs, forms and patterns of biodiversity, spatial dynamics, community-level change through time, nutrient cycling and ecosystem services, and conservation in the Anthropocene. Field trips are required.

NATR 322 Environmental Restoration

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L5

This course covers fundamental principles and practices of environmental restoration--the process in which a damaged resource is renewed biologically, structurally, and functionally. Topics include both the causes of ecological degradation and biodiversity loss, as well as the science of development, management, monitoring, and sustainability of restored environments. Ecological principles, ecosystem processes, and biological interactions are covered in the context of restoration of wildlands and more urbanized areas. Restoration project planning, design and implementation are highlighted and real world decision-making is explained through professional examples and interactions with practitioners. The course emphasizes hands-on experience with a variety of restoration techniques and materials in diverse habitats. Previously restored habitats in the Sacramento region are explored and current restoration sites are evaluated. Field trips may be required.

NATR 324 Field Studies: Birds and Plants of the High Sierra

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

This field study course focuses on identification, patterns of distribution and abundance, ecology, and conservation of bird and plant communities of the High Sierra. Primary environments explored include montane chaparral, riparian woodland, coniferous forest, montane bog and fen, rocky outcrop, montane meadow, subalpine woodland, and alpine tundra. Emphasis is placed on the natural history and life history characteristics of common birds and plants, as well as rare and endangered species and their conservation challenges. Field trips are required.

NATR 330 Native Trees and Shrubs of California

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L5

This dendrology course investigates ecology of major natural plant communities of California and their component trees and shrubs. Emphasis is placed on biotic and abiotic factors of native woody plant distribution and abundance in northern and central California, focusing on characterization of the dominant vegetation types and identification of native woody species. Major topics include plant taxonomy; adaptation, evolution, and diversity in time and space; morphology and physiology; life history; influence of soils, climate, and topography; endemism; interspecific and intraspecific interactions; invasive species; disease; anthropogenic and natural environmental change; human uses of native plants; native plant restoration and conservation; and application of scientific inquiry to the study of California native woody plants. Field trips are required.

NATR 332 Wildflowers of California

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L5

This course investigates biology, ecology, conservation, and management in the context of California wildflowers. Field labs focus on the California Floristic Province. The identification, distribution, and interrelationships of herbaceous plants in their natural environment, physical and biological influences, ecological relationships, and representative plant communities are examined. Special emphasis is given to the study of plant families in our local grasslands, vernal pools, oak woodlands, and foothills. Field trips may be required.

NATR 346 Water Resources and Conservation

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L5

This course provides an introduction to water resource management with an emphasis on water issues in California. It explores current and projected water issues in California and introduces students to fundamental aspects of Hydrology and Hydrogeology. The course investigates surface water and groundwater systems, with an emphasis on the interdisciplinary nature of sustainable water resource management that balances urban, agricultural, industrial, and environmental water needs. It considers the implications of water rights and key water policies in evaluating how water is used and exploited. The course also explores concepts and practices of water budgeting for agriculture and domestic use.

NATR 495 Independent Studies in Natural Resources

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

NATR 498 Work Experience in Natural Resources

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Natural Resources Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of natural resources. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings.This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

NATR 499 Experimental Offering in Natural Resources

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Nursing and Allied Health

Overview

The Nursing program consists of a combination of general education and nursing courses with related laboratory experience in local health agencies. Successful completion of the program qualifies the student to take the National Licensing Examination to become registered as a nurse and eligible for employment. A grade of "C" or better is required in each nursing course for progression in the program and for an Associate Degree in Nursing. The nursing curriculum is a two-year program offered in four sequential semesters. There are two application periods per year and students are accepted for the spring and fall semesters. There are morning, afternoon, evening, and weekend clinical experiences required which may change with limited notice.

The nursing program at American River College is impacted; there are more students who apply than can be accepted into the program. All applicants with 70 points or more are put into the selection pool (see Prescreening Criteria Form for details). If an applicant is not chosen, the student may reapply the next nursing application cycle.

Startup program costs are approximately $7,000. The student is responsible for providing uniforms, laboratory fees, malpractice insurance, necessary equipment, and transportation to off-campus laboratory locations. Nursing program students should expect fees of approximately $575.00 to take the R.N. licensure exam. All costs/fees are subject to change.

Degrees and Certificates Offered

A.S. in LVN to RN Career Mobility

A.S. in Pre-Health Occupations

A.S. in Registered Nursing

Licensed Vocational Nurse (LVN) 30-unit option Certificate

Certified Nurse Assistant Certificate

Home Health Aide Certificate

Dean: Narinedat Madramootoo

Department Chairs: Lazette Nowicki

Phone: (916) 484-8577

Email: askhb-healthed@arc.losrios.edu

Associate Degrees

A.S. in LVN to RN Career Mobility

Nursing is a health care profession that draws on nursing science, natural physical and biological sciences, as well as the social sciences and humanities. The Nursing Program consists of general education and nursing courses designed to prepare an entry-level registered nurse, who can function effectively in the rapidly changing healthcare environment. Simulated and actual patient centered learning experiences provide for application of concepts. Each semester of education builds upon previous learning.

This degree is designed for the California Licensed Vocational Nurse (LVN) who is admitted for advanced placement into the second year of the Registered Nursing (Associate Degree) Program. The graduate of the Associate Degree Nursing program at American River College demonstrates entry-level competencies and meets the educational requirements necessary to take the National Council Licensure Examination (NCLEX-RN) to become licensed as a Registered Nurse and eligible for employment.

A grade of "C" or better is required in each nursing course for progression in the program. Clinical experiences may change with limited notice and occur morning, afternoon, evening, and weekends. Students are responsible for their own transportation. Students are required to pay for uniforms, necessary equipment, malpractice insurance, background checks, drug testing, and health requirements.

Note: The California Board of Registered Nursing (BRN) protects the public by screening applicants for licensure in order to identify potentially unsafe practitioners. The law provides for denial of licensure for crimes or acts, which are substantially related to nursing qualifications, functions, or duties. At time of licensure application, all convictions must be reported except for minor traffic violation. (Business and Professions Code §480 and Nurse Practice Act ARTICLE 3 §2761)

Note: Providing a Social Security Number (SSN) OR Individual Taxpayer Identification Number (ITIN): Pursuant to Business and Professions Code §30(c) the BRN will not process any application for licensure unless the applicant provides a SSN or ITIN. The Nursing Practice Act provides for a unified examination and licensing application. Once an applicant passes the examination, a license is automatically issued.

Under these circumstances the BRN cannot accept applications for the examination and licensure without a SSN/ITIN.

Degree Requirements

Course Code	Course Title	Units
Prerequisites for LVN to RN Mobility Program:		
ANTH 310	Cultural Anthropology (3)	3
or ANTH 481	Honors Cultural Anthropology (3)	
or SOC 300	Introductory Sociology (3)	
or SOC 480	Introductory Sociology - Honors (3)	
BIOL 430	Anatomy and Physiology	5[1]
BIOL 431	Anatomy and Physiology	5
BIOL 440	General Microbiology (4)	4 - 5
or BIOL 442	General Microbiology and Public Health (5)	
COMM C1000	Introduction to Public Speaking (3)	3
ENGL C1000	Academic Reading and Writing (3)	3
or ENGL C1000H	Academic Reading and Writing - Honors (3)	
NUTRI 300	Nutrition	3
PSYC C1000	Introduction to Psychology (3)	3
or PSYC C1000H	Introduction to Psychology - Honors (3)	
Positive Credit after LVN Transcript Evaluation:		
NURSE 400	Nursing, Patient, and Healthcare Concepts I	10.5[2]
NURSE 410	Nursing, Patient, and Healthcare Concepts II	10.5[3]
1st Semester - Summer Session:		
NURSE 305	Transition to Nursing, Patient, and Healthcare Concepts for the Associate Degree Nurse	5
2nd Semester:		
NURSE 420	Nursing, Patient, and Healthcare Concepts III	10.5
3rd Semester:		
NURSE 430	Nursing, Patient, and Healthcare Concepts IV	10.5
Total Units:		**76 - 77**

[1]BIOL 430, 440, and 442 have prerequisites. Please check catalog course descriptions.

[2]Credit for NURSE 400 will be given after evaluation of LVN program transcripts.

[3]Credit for NURSE 410 will be given after evaluation of LVN program transcripts.

The LVN to RN Career Mobility Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Possession of a current clear and active California Licensed Vocational Nurse (LVN) license at the time of application and through program completion.
- A grade of "C" or better and a cumulative G.P.A. of 3.0 in the following science prerequisites: BIOL 430, BIOL 431, and BIOL 440 or 442.
- A grade of â€œCâ€ or better and a cumulative G.P.A. of 2.5 in the following prerequisite courses: ANTH 310, ANTH 481, SOC 300, or SOC 480; ENGL C1000 or ENGL C1000H; NUTRI 300; PSYC C1000 or PSYC C1000H; and COMM C1000.
- Completion of the latest edition of the Test of Essential Academic Skills (TEAS), developed by the Assessment Technologies Institute, LLC (ATI). A minimum composite score is necessary to be eligible for application to the program. Additional information is available from the ARC Nursing website: http://www.arc.losrios.edu/~nursing/
- Note: In-progress grades are not accepted for prerequisite courses.
- Note: The Nursing Admissions Committee will determine acceptance of pre-nursing courses taken outside the Los Rios Community College District.
- Note: The American River College Nursing Program reserves the right to make changes in the enrollment criteria, academic requirements, grading standards and other processes without notice at any time.

Enrollment Process

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

- Applicants must obtain a Los Rios Community College District student identification number in order to access the online application.

- Detailed information about program requirements, enrollment criteria, enrollment applications and deadlines are available on the ARC Nursing website at www.arc.losrios.edu/ARC_Majors/Health_And_Education/Nursing.htm.
- Applications for enrollment, transcripts, and all other supporting documents must be submitted by the posted due date for the candidate's application to be reviewed, and potentially placed into the pool for random selection. Only students who meet the educational and pre-nursing requirements and follow the enrollment procedures will be considered for the program. Meeting all these requirements does not guarantee acceptance into the program.
- Only students who meet the educational and pre-nursing requirements and follow the pre-enrollment procedures will be considered for the program. Meeting all these requirements does not guarantee acceptance into the program.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- use clinical reasoning and knowledge based on the nursing program of study, evidence based practice outcomes, and research based policies and procedures as the basis for decision-making and delivery of comprehensive, safe, patient centered care.
- use information and technology to communicate, manage knowledge, and mitigate error.
- participate in quality improvement activities to measure patient outcomes, identify hazards and errors, and to improve care.
- coordinate, collaborate, and communicate with diverse patients, families, and the interdisciplinary healthcare team to plan, deliver, and evaluate care that promotes quality of life.
- demonstrate delegation, management, and leadership skills that integrate systems thinking, communication, and change processes.
- demonstrate behavior that reflects the values of the nursing profession including self-awareness, a spirit of inquiry, leadership, ethical comportment, effective communication, clinical judgment and competence, and mentorship.
- adhere to standards of practice within legal, ethical, and regulatory frameworks of the professional nurse.

Career Information

"Employment of registered nurses is projected to grow 16 percent from 2014 to 2024, much faster than the average for all occupations. Growth will occur for a number of reasons, including an increased emphasis on preventive care; growing rates of chronic conditions, such as diabetes and obesity; and demand for healthcare services from the baby-boom population, as they live longer and more active lives" (Bureau of Labor Statistics, Dec. 2015. Job Outlook Registered Nurse. Retrieved from www.bls.gov/ooh/healthcare/registered-nurses.htm).

A.S. in Pre-Health Occupations

This degree prepares students interested in a variety of Allied Health occupations. The degree will prepare students with a rigorous course of study prior to selecting the program of their chosen career. Students will complete coursework with an emphasis on basic science, healthcare delivery and culturally competent patient care. Students completing the degree will be prepared to enter programs for careers in Diagnostic Medical Sonography, Medical Assisting, Health Information Technology, Nursing and others. Students may also choose to complete this degree in preparation for transfer to a Health Sciences Baccalaureate degree program. Completion of the degree does not guarantee enrollment in any health occupation program.

Degree Requirements

Course Code	Course Title	Units
ANTH 310	Cultural Anthropology (3)	3
or ANTH 481	Honors Cultural Anthropology (3)	
or SOC 300	Introductory Sociology (3)	
BIOL 430	Anatomy and Physiology	5
BIOL 431	Anatomy and Physiology	5
BIOL 440	General Microbiology (4)	4 - 5
or BIOL 442	General Microbiology and Public Health (5)	
CHEM 305	Introduction to Chemistry (5)	5
or CHEM 309	Integrated General, Organic, and Biological Chemistry (5)	
ENGL C1000	Academic Reading and Writing (3)	3 - 4
or ENGL C1000H	Academic Reading and Writing - Honors (3)	
or ESLW 340	Advanced Composition (4)	
NUTRI 300	Nutrition	3
PSYC C1000	Introduction to Psychology (3)	3
or PSYC C1000H	Introduction to Psychology - Honors (3)	
COMM C1000	Introduction to Public Speaking (3)	3
or COMM 331	Group Discussion (3)	

Course Code	Course Title	Units
STAT C1000	Introduction to Statistics (4)	3 - 4
or PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
Total Units:		**37 - 40**

The Pre-Health Occupations Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- articulate career options and necessary educational pathways.
- describe the structure and function of each body system.
- demonstrate a workable knowledge of medical language.
- demonstrate professionalism in a range of clinical interactions and settings.
- describe the principles of nutrition and their effect on health.
- describe the role that culture and diversity play in patient care.

Career Information

Upon completion students are prepared to enter a range of Allied Health and Nursing training programs. This may include training programs for professions such as: nursing, dental hygiene, physical therapy assistant, occupational therapy assistant, respiratory therapy, and radiology technician.

A.S. in Registered Nursing

Nursing is a health care profession that draws on nursing science, natural physical and biological sciences, as well as the social sciences and humanities. The Nursing Program consists of general education and nursing courses designed to prepare an entry-level registered nurse, who can function effectively in the rapidly changing healthcare environment. Simulated and actual patient centered learning experiences provide for application of concepts. Each semester of education builds upon previous learning. The graduate of the Associate Degree Nursing program at American River College demonstrates entry-level competencies and meets the educational requirements necessary to take the National Council Licensure Examination (NCLEX-RN) to become licensed as a Registered Nurse and eligible for employment.

A grade of "C" or better is required in each nursing course for progression in the program. Clinical experiences may change with limited notice and occur morning, afternoon, evening, and weekends. Students are responsible for their own transportation. Students are required to pay for uniforms, necessary equipment, malpractice insurance, background checks, drug testing, and health requirements.

Note: The California Board of Registered Nursing (BRN) protects the public by screening applicants for licensure in order to identify potentially unsafe practitioners. The law provides for denial of licensure for crimes or acts, which are substantially related to nursing qualifications, functions, or duties. At time of licensure application, all convictions must be reported except for minor traffic violations. (Business and Professions Code §480 and Nurse Practice Act ARTICLE 3 §2761)

Note: Providing a Social Security Number (SSN) OR Individual Taxpayer Identification Number (ITIN): Pursuant to Business and Professions Code §30(c) the BRN will not process any application for licensure unless the applicant provides a SSN or ITIN. The Nursing Practice Act provides for a unified examination and licensing application. Once an applicant passes the examination, a license is automatically issued. Under these circumstances the BRN cannot accept applications for the examination and licensure without a SSN/ITIN.

Degree Requirements

Course Code	Course Title	Units
Prerequisites for Nursing:		
ANTH 310	Cultural Anthropology (3)	3[1]
or ANTH 481	Honors Cultural Anthropology (3)	
or SOC 300	Introductory Sociology (3)	
or SOC 480	Introductory Sociology - Honors (3)	
BIOL 430	Anatomy and Physiology	5[2]
BIOL 431	Anatomy and Physiology	5
BIOL 440	General Microbiology (4)	4 - 5
or BIOL 442	General Microbiology and Public Health (5)	
COMM C1000	Introduction to Public Speaking (3)	3[3]
or COMM 331	Group Discussion (3)	
ENGL C1000	Academic Reading and Writing (3)	3 - 4
or ENGL C1000H	Academic Reading and Writing - Honors (3)	
or ESLW 340	Advanced Composition (4)	
NUTRI 300	Nutrition	3

Course Code	Course Title	Units
PSYC C1000	Introduction to Psychology (3)	3
or PSYC C1000H	Introduction to Psychology - Honors (3)	
1st Semester:		
NURSE 400	Nursing, Patient, and Healthcare Concepts I	10.5
2nd Semester:		
NURSE 410	Nursing, Patient, and Healthcare Concepts II	10.5
3rd Semester:		
NURSE 420	Nursing, Patient, and Healthcare Concepts III	10.5
4th Semester:		
NURSE 430	Nursing, Patient, and Healthcare Concepts IV	10.5
Total Units:		**71 - 73**

[1]ANTH or SOC must be taken either prior to or concurrently with NURSE 410.

[2]BIOL 430, 440, and 442 have prerequisites. Please check catalog course descriptions.

[3]COMM C1000 or 331 must be taken either prior to or concurrently with NURSE 400.

The Registered Nursing Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Graduation from an accredited high school or successful completion of General Education Development (GED) or California High School Proficiency Exam (CHSPE). Graduates from outside the United States must have transcripts evaluated by an approved independent agency. These requirements are defined by the Nurse Practice Act, California Code of Regulations, Title 16, Division 14, ARTICLE 1, §1412.
- A grade of "C" or better and a cumulative G.P.A. of 3.0 in the following science prerequisites: BIOL 430, BIOL 431, and BIOL 440 or BIOL 442.
- A grade of "C" or better and a cumulative college GPA of 2.5 in the following courses: ENGL C1000, ENGL C1000H, or ESLW 340; NUTRI 300; and PSYC C1000 or PSYC C1000H.
- Completion of the latest edition of the Test of Essential Academic Skills (TEAS), developed by the Assessment Technologies Institute, LLC (ATI). A minimum composite score is necessary to be eligible for application to the program.
- Note: In-progress grades are not accepted for prerequisite courses.
- Note: The Nursing Admissions Committee will determine acceptance of pre-nursing courses taken outside the Los Rios Community College District.
- Note: The American River College Nursing Program reserves the right to make changes in the enrollment criteria, academic requirements, grading standards and other processes without notice at any time.

Enrollment Process

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

- The Associate in Science Degree Registered Nursing Program at American River College uses a multi-criteria enrollment process. Students must reapply each semester. There is no waiting list.
- Detailed information about program requirements, enrollment criteria, enrollment applications and deadlines are available on the ARC Nursing website at www.arc.losrios.edu/ARC_Majors/Health_And_Education/Nursing.htm
- Applicants must obtain a Los Rios Community College District student identification number in order to access the online application.
- Applications for enrollment, OFFICIAL transcripts, and all other supporting documents must be submitted by the posted due date for the candidate's application to be reviewed, and potentially placed into the pool for random selection. Only students who meet the educational and pre-nursing requirements and follow the enrollment procedures will be considered for the program. Meeting all these requirements does not guarantee acceptance into the program.
- Students wishing to transfer into the second, third, or fourth semester of the nursing program must contact the department office at (916) 484-8254. The office will provide a transfer packet and current information on space availability.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- use clinical reasoning and knowledge based on the nursing program of study, evidence based practice outcomes, and research based policies and procedures as the basis for decision-making and delivery of comprehensive, safe, patient centered care.

- use information and technology to communicate, manage knowledge, and mitigate error.
- participate in quality improvement activities to measure patient outcomes, identify hazards and errors, and improve care.
- coordinate, collaborate, and communicate with diverse patients, families, and the interdisciplinary healthcare team to plan, deliver, and evaluate care that promotes quality of life.
- demonstrate delegation, management, and leadership skills that integrate systems thinking, communication, and change processes.
- demonstrate behavior that reflects the values of the nursing profession including self-awareness, a spirit of inquiry, leadership, ethical comportment, effective communication, clinical judgment and competence, and mentorship.
- adhere to standards of practice within legal, ethical, and regulatory frameworks of the professional nurse.

Career Information

"Employment of registered nurses is projected to grow 16 percent from 2014 to 2024, much faster than the average for all occupations. Growth will occur for a number of reasons, including an increased emphasis on preventive care; growing rates of chronic conditions, such as diabetes and obesity; and demand for healthcare services from the baby-boom population, as they live longer and more active lives" (Bureau of Labor Statistics, Dec. 2015. Job Outlook Registered Nurse. Retrieved from www.bls.gov/ooh/healthcare/registered-nurses.htm).

Certificate of Achievement

Licensed Vocational Nurse (LVN) 30-unit option Certificate

The LVN 30-unit option program, which is required by the Board of Registered Nursing (California Code of Regulations ⁄1429), provides the Licensed Vocational Nurse (LVN) the opportunity to take the National Council Licensure Examination (NCLEX-RN) once the registered nursing course requirements have been met and without meeting the degree requirements for the Associate in Science Degree. This option does not satisfy American River College's Nursing Program requirements nor lead to an Associate of Science Degree in Nursing.

A grade of "C" or better is required in each nursing course for progression in the program. Clinical experiences may change with limited notice and occur morning, afternoon, evening, and weekends. Students are responsible for their own transportation. Students are required to pay for uniforms, necessary equipment, malpractice insurance, background checks, drug testing, and health requirements.

Note: The California Board of Registered Nursing (BRN) protects the public by screening applicants for licensure in order to identify potentially unsafe practitioners. The law provides for denial of licensure for crimes or acts, which are substantially related to nursing qualifications, functions, or duties. At time of licensure application, all convictions must be reported except for minor traffic violations. (Business and Professions Code ⁄480 and Nurse Practice Act ARTICLE 3 ⁄2761).

Note: Providing a Social Security Number (SSN) OR Individual Taxpayer Identification Number (ITIN): Pursuant to Business and Professions Code ⁄30(c) the BRN will not process any application for licensure unless the applicant provides a SSN or ITIN. The Nursing Practice Act provides for a unified examination and licensing application. Once an applicant passes the examination, a license is automatically issued. Under these circumstances the BRN cannot accept applications for the examination and licensure without a SSN/ITIN.

Certificate Requirements

Course Code	Course Title	Units
BIOL 431	Anatomy and Physiology	5[1]
BIOL 440	General Microbiology	4
NURSE 400	Nursing, Patient, and Healthcare Concepts I	10.5
NURSE 410	Nursing, Patient, and Healthcare Concepts II	10.5
Total Units:		**30**

[1]BIOL 431 and 440 have prerequisites. Please check catalog course descriptions.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Possession of a current Basic Life Support for Health Care Providers through the American Heart Association. Acceptance in the program based on admission criteria.
- Note: In-progress grades are not accepted for prerequisite courses.
- Note: The Nursing Admissions Committee will determine acceptance of pre-nursing courses taken outside the Los Rios Community College District.

- Note: The American River College Nursing Program reserves the right to make changes in the enrollment criteria, academic requirements, grading standards and other processes without notice at any time.

Enrollment Process

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

- Contact the Nursing Department at 916-484-8254 for an appointment with the Program Director. Objective counseling of this option and individual evaluation will occur at the appointment.
- Provide unofficial transcripts and course descriptions of physiology, microbiology, and previous LVN program at the appointment.
- Meeting these requirements does not guarantee acceptance into the program. Entry is subject to space availability.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- use clinical reasoning and knowledge based on the nursing program of study, evidence based practice outcomes, and research based policies and procedures as the basis for decision-making and delivery of comprehensive, safe, patient centered care.
- use information and technology to communicate, manage knowledge, and mitigate error.
- participate in quality improvement activities to measure patient outcomes, identify hazards and errors, and to improve care.
- coordinate, collaborate, and communicate with diverse patients, families, and the interdisciplinary healthcare team to plan, deliver, and evaluate care that promotes quality of life.
- demonstrate delegation, management, and leadership skills that integrate systems thinking, communication, and change processes.
- demonstrate behavior that reflects the values of the nursing profession including self-awareness, a spirit of inquiry, leadership, ethical comportment, effective communication, clinical judgment and competence, and mentorship.
- adhere to standards of practice within legal, ethical, and regulatory frameworks of the professional nurse.

Career Information

The State of California provides the LVN with an option to take the National Council Licensure Examination (NCLEX-RN) after completing 30 college semester units. The LVN seeking this path to RN licensure will not receive a degree and this may impact employment opportunities. Additionally, reciprocal RN licensure in other states may be affected. LVNs considering moving out-of-state are encouraged to consult with that state's board of nursing for RN licensure requirements before committing to the 30-unit option.

Certificates

Certified Nurse Assistant Certificate

The Certified Nurse Assistant (CNA) certificate program provides instruction in the holistic care and health needs of people over 65 years of age, who live in long-term care facilities. Students who successfully complete the program receive a certificate of course completion and become eligible to take the California state exam to become a certified nurse assistant.

Certificate Requirements

Course Code	Course Title	Units
AH 311	Medical Language for Health-Care Providers	3
NURSE 100	Nurse Assistant	7
Total Units:		**10**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The program reserves the right to make changes in the enrollment criteria, academic requirements, grading standards, and other processes without notice at any time.
- Students must complete course AH 110 with a "C" or better.
- Student will be required to submit a negative TB skin test completed within 90 days prior to class entrance or a negative chest x-ray completed within 90 days prior to class entrance.
- Spring semester student must submit proof of having a current influenza vaccine to participate in clinical experiences. Fall semester student must obtain an influenza vaccine when the vaccine becomes available.

- Student must submit a completed health history and physical exam completed within 90-days prior to class entrance. Physical exam must clear student to fully participate in clinical labs. Student must use and submit the ARC Nurse Assistant Medical Form.
- Student must meet the California Department of Public Health (CDPH) regulation that requires the student be able to listen, comprehend, and respond appropriately, both verbally and in action, to the English language at a minimum sixth grade level.
- CNA student-applicants must obtain a criminal screening prior to acceptance into the course.

Enrollment Process

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

- Read the application process located at the ARC Nursing Department website and follow the directions.
- Admission to the course is by department consent only and determined after review of the applications.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- explain the California Administrative Code, Title XXII, Section 72527, as it relates to the role and responsibilities of the Certified Nursing Assistant regarding professionalism, ethics, and confidentiality.
- discuss resident rights, appropriate interaction with residents, families, and other members of the health care team.
- describe and demonstrate rehabilitation and restorative care with proper and safe body mechanics.
- explain what constitutes an emergency and the basics of emergency care required of a Certified Nurse Assistant.
- discuss and practice basic restraint use and associated safety measures and alternatives to restraints.
- differentiate common therapeutic diets.
- discuss and demonstrate basic care procedures required of a Certified Nurse Assistant.
- state and demonstrate protective measures to prevent the spread of infection.

Career Information

Certified Nurse Assistants (CNA) have a wide variety of work opportunities. The most common work placement is in long-term care facilities. Additionally, CNA work may be found in acute care settings, assisted care facilities, and rehabilitation care centers.

Home Health Aide Certificate

This certificate expands on previously learned Certified Nurse Assistant (CNA) theory to incorporate the holistic care and health needs of the elderly homebound person. This program introduces the student to the roles and responsibilities of the home health aide. Students who successfully complete the course will receive a Certificate of Completion from the instructor. The State of California will certify the CNA as a Home Health Aide after successful course completion and without further testing.

Note: More information is available about NURSE 101 at the ARC nursing website in the NURSE 101 course information packet.

Certificate Requirements

Course Code	Course Title	Units
NURSE 101	Home Health Aide	1.5[1]
Total Units:		**1.5**

[1]Student must submit one of the following items prior to the start of class: (A.) A copy of a current Certified Nurse Assistant (CNA) certificate (B) Be currently enrolled in a CNA course at ARC.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Proof of having completed a CA approved nurse assistant course or proof of current California nurse assistant certification.
- have a completed health history and physical exam done within 90 days prior to the start of class. The health history and physical exam must be signed by the student and the health care provider. Physical exam must clear student to fully participate in clinical labs. Student must use the ARC Nurse Assistant Medical form provided.
- provide a Tuberculin [TB] skin clearance test within 90 days prior to start of class, or submit a TB clearance chest x-ray within 90 days prior to start of class.
- proof of current influenza vaccine and other required vaccines.

- proof of criminal clearance before entering the NURSE 101 class.

Enrollment Process

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

- Student must submit completed, time-sensitive prerequisites. Student must refer to the ARC Nursing website, NURSE 101 information for complete information about course prerequisites and prerequisite submission deadline.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- explain and discuss the roles and responsibilities of the Home Health Aide (HHA).
- discuss and demonstrate documentation requirements of the HHA.
- describe how culture, religious/spiritual needs, lifestyle, and life experiences of the client and family can influence care provided by the HHA.
- describe and discuss the signs and symptoms of common diseases and disorders of the homebound client.
- provide basic personal care needs and a clean, safe, and healthy environment for the homebound client.

Career Information

The Home Health Aide may expand on the CNA work experiences and settings to include the homebound client.

Allied Health (AH) Courses

AH 112 Strategies for Student Success in Health Occupations

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

General Education: Local GE L7B

This course provides realistic and useful strategies to enhance success in reaching career goals associated with health occupations. It covers the necessary skills to determine a career path based on a realistic understanding of specific health occupations and associated aptitudes.

AH 299 Experimental Offering in Allied Health

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

AH 311 Medical Language for Health-Care Providers

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course is an orientation to medical language. It covers the basic structure of medical terms and their components: prefixes, suffixes, roots, and combining forms with emphasis on meaning, spelling, and pronunciation. This course also 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. This course was formerly known as AH 110, and is not open to students who have completed AH 110.

Nursing (NURSE) Courses

NURSE 100 Nurse Assistant

Units: 7

Hours: 86 hours LEC; 120 hours LAB

Prerequisite: AH 311 with a grade of "C" or better

Enrollment Limitation: Acceptance into the CNA Program.

This course leads to the nurse assistant certification exam. It emphasizes the gerontological nursing assistant's role and responsibilities as a healthcare team member. It also covers principles of asepsis, infection control, resident care skills, and emotional, social, and spiritual needs of the resident.

NURSE 101 Home Health Aide

Units: 1.5

Hours: 22 hours LEC; 24 hours LAB

Prerequisite: Proof of having completed a CA approved nurse assistant course or proof of current California nurse assistant certification

This course focuses on home health nurse aide responsibilities: personal and rehabilitation nursing care in the home, skills of maintaining a safe home environment, meal planning and preparation, emotional care of the homebound, and home emergency procedures. Additional information on this course is available on the ARC Nursing Program website.

NURSE 299 Experimental Offering in Nursing

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

NURSE 305 Transition to Nursing, Patient, and Healthcare Concepts for the Associate Degree Nurse

Units: 5

Hours: 54 hours LEC; 108 hours LAB

Prerequisite: None.

Enrollment Limitation: Acceptance into the career mobility track of the Associate Degree Nursing Program.

Transferable: CSU

This bridge course is designed for the California Licensed Vocational Nurse (LVN) who is admitted for advanced placement into the second year of the Associate Degree Nursing (Registered Nursing) Program. It introduces the concept based curriculum and the knowledge, skills, and attitudes essential to nursing. It focuses on nursing management of the patient's response to health alterations as well as health promotion through the application of nursing knowledge, nursing process, and evidence based practice. The clinical laboratory experience is designed to facilitate the development of the core competencies of clinical practice: communication, leadership, patient centered care, professionalism, safety, teamwork and collaboration, evidence based practice, informatics and technology, and quality improvement. Emphasis is placed on health assessment across the lifespan, family communication, patient education, teamwork and collaboration, role transition, clinical judgment, and management of care.

NURSE 310 Pharmacology and Implications for Health Care Practitioners

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course presents the principles of drug therapy as they apply to treating disease and maintaining health. It covers the metabolism and action of drugs, absorption, duration of action, distribution in the body, and adverse drug reactions. Major drug classes are included, as well as their related implications for people receiving these drugs and the effects on the body. This course also includes discussions on the administration of medications according to nursing professional standards and other health care professionals.

NURSE 320 Medical Dosage Calculations

Units: 1.5

Hours: 27 hours LEC

Prerequisite: None.

Transferable: CSU

This course prepares health professionals to calculate oral and parenteral drug dosages with a focus on safety and accuracy. Three systems of measurement and conversion are practiced. This course also provides experience in understanding drug orders and drug labels. Calculation accuracy is emphasized by clinical scenarios and case study assignments.

NURSE 370 Focused Learning in the First Year of the ARC Nursing Program

Units: 1.5

Hours: 27 hours LEC

Prerequisite: None.

Corequisite: Concurrent enrollment in NURSE 400 or NURSE 410

Transferable: CSU

This course offers strategies to enhance student success in the first year of the Associate Degree Nursing (ADN) program. It provides an assessment of personal aptitudes, learning styles, strengths, and weaknesses in written and verbal communication, and potential barriers to successful completion of the nursing program. It also provides the development of personal and professional support systems

and development of a purposeful analytic process that supports reasoned decisions and judgments as a healthcare professional. Pass/No Pass only.

NURSE 372 Focused Learning in the Second Year of the ARC Nursing Program

Units: 1.5

Hours: 27 hours LEC

Prerequisite: NURSE 410 with a grade of "C" or better

Corequisite: NURSE 420 or 430

Transferable: CSU

This course offers strategies to enhance student success in the second year of the Associate Degree Nursing (ADN) program. This course reviews personal aptitudes, learning styles, strengths, and weaknesses in written and verbal communication as well as potential barriers to completion of the nursing program. Course content addresses the specific theory and clinical needs of NURSE 420 and NURSE 430 while focusing on the development of critical thinking skills used when managing a group of patients in the clinical setting. Pass/No Pass only.

NURSE 400 Nursing, Patient, and Healthcare Concepts I

Units: 10.5

Hours: 81 hours LEC; 324 hours LAB

Prerequisite: None.

Corequisite: COMM C1000

Enrollment Limitation: Acceptance into the Associate Degree Nursing Program

Transferable: CSU

This course introduces essential concepts of safe and effective nursing care for patients across the lifespan, utilizing the nursing process and evidence-based practice. It focuses on the introduction of the wellness/illness continuum and the core competencies of clinical practice. The competencies include communication, leadership, patient-centered care, professionalism, safety, teamwork and collaboration, evidence-based practice, informatics and technology, and quality improvement. The clinical experience is designed to facilitate the fundamental acquisition of the core competencies of clinical practice. Emphasis in clinical is placed on health assessment across the lifespan, recognition of alterations from the norm, safety for patients and providers of care, interpersonal communication, patient-centered care, ethics, and safe, evidence-based technical skill interventions. The course consists of the following hours: theory 81, applied theory 199, clinical hours 125 and out of course work 164. Applied theory refers to the utilization of theoretical concepts in real-world situations or practical settings. This approach bridges the gap between theory and practice, allowing for the effective application of theoretical knowledge to real-life situations.

NURSE 410 Nursing, Patient, and Healthcare Concepts II

Units: 10.5

Hours: 81 hours LEC; 324 hours LAB

Prerequisite: COMM C1000 and NURSE 400 with grades of "C" or better

Corequisite: ANTH 310, ANTH 481, SOC 300, or SOC 480

Transferable: CSU

This course applies concepts of safe and effective nursing care for diverse children, adults, and families, concentrating on healthcare needs on the wellness/illness continuum across the lifespan. It focuses on nursing management of the patient's response to health alterations as well as health promotion for childbearing and childrearing families through the application of nursing knowledge, nursing process, and evidence-based practice. The clinical experience is designed to facilitate the development of the core competencies of clinical practice: communication, leadership, patient-centered care, professionalism, safety, teamwork and collaboration, evidence-based practice, informatics and technology, and quality improvement. Emphasis is placed on family communication, patient education, teamwork and collaboration, clinical judgment, and management of care. Applied theory refers to the utilization of theoretical concepts in real-world situations or practical settings. This approach bridges the gap between theory and practice, allowing for the effective application of theoretical knowledge to real-life situations. The course consists of the following hours: theory 81, applied theory 199, clinical hours 125 and out of course work 164. Applied theory refers to the utilization of theoretical concepts in real-world situations or practical settings. This approach bridges the gap between theory and practice, allowing for the effective application of theoretical knowledge to real-life situations.

NURSE 420 Nursing, Patient, and Healthcare Concepts III

Units: 10.5

Hours: 81 hours LEC; 324 hours LAB

Prerequisite: NURSE 305 or 410 with a grade of "C" or better; SOC 300 or SOC 480, or ANTH 310 or ANTH 481, with a grade of "C" or better.

Transferable: CSU

This course adapts concepts of safe and effective nursing care for diverse adults experiencing acute and chronic alterations across the wellness/illness continuum. It focuses on nursing management of the adult patient's response to physical and mental health alterations through the application of nursing knowledge, nursing process, and evidence-based practice. The clinical experience is designed to facilitate the development of the core competencies of clinical practice: communication, leadership, patient-centered care, professionalism, safety, teamwork and collaboration, evidence-based practice, informatics and technology, and quality improvement. Emphasis in clinical is placed on clinical judgment, interprofessional communication, patient-centered care, safety, and team collaboration. The course consists of the following hours: theory 81, applied theory 199, clinical hours 125 and out of course work 164. Applied theory refers to the utilization of theoretical concepts in real-world situations or practical settings. This approach bridges the gap between theory and practice, allowing for the effective application of theoretical knowledge to real-life situations.

NURSE 430 Nursing, Patient, and Healthcare Concepts IV

Units: 10.5

Hours: 81 hours LEC; 324 hours LAB

Prerequisite: NURSE 420 with a grade of "C" or better

Transferable: CSU

This course integrates concepts of safe and effective nursing care for individuals and groups of patients across the lifespan. It is designed to facilitate integration of knowledge, evidence-based practice, and clinical judgment in the management of patients with complex healthcare needs, and to facilitate the student's transition into the profession of nursing. Clinical judgment skills are enhanced through advanced clinical experiences and role transition opportunities. The clinical experience is designed to facilitate the development and demonstration of the core competencies of clinical practice: communication, leadership, patient-centered care, professionalism, safety, teamwork and collaboration, evidence-based practice, informatics and technology, and quality improvement. Emphasis in clinical is placed on evidence-based practice, quality improvement, team collaboration concepts, managing care for groups of patients, the role of the nurse in a systems based practice, interprofessional collaboration, legal precepts, and health policy. The course consists of the following hours: theory 81, applied theory 199, clinical hours 125 and out of course work 164. Applied theory refers to the utilization of theoretical concepts in real-world situations or practical settings. This approach bridges the gap between theory and practice, allowing for the effective application of theoretical knowledge to real-life situations.

NURSE 499 Experimental Offering in Nursing

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Nutrition and Foods

Overview

The Nutrition Department at ARC offers an academically rich, inclusive environment that inspires critical thinking, learning, and achievement. Students learn to apply evidence-based nutrition principles to improve health and quality of life. The Nutrition Associate's Degree prepares students for transfer into programs such as Dietetics, Community Nutrition, and the Health Sciences. The Department also offers a wide variety of Nutrition courses to satisfy general education requirements.

Nutrition is a multi-dimensional field of study, and can lead to careers in:

1. Research – Academics, government
2. Clinical Nutrition and Counseling – Registered Dietitians (RD), Dietetic Technician, Registered (DTR)
3. Food Industry – Develop new foods, marketing and communications
4. Education – Develop programs, direct education to the public
5. Public Health – Create nutrition related policies, develop and promote nutrition education
6. Food Service – Dietary Manager, menu development, regulation and compliance with food safety

Degrees and Certificates Offered

A.S.-T. in Nutrition and Dietetics

Dietary Manager/Dietary Service Supervisor Certificate

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Health Sciences Certificate

Dean: Narinedat Madramootoo
Department Chair: Susan Chou
Phone: (916) 484-8902
Email: askhb-healthed@arc.losrios.edu

Associate Degree for Transfer

A.S.-T. in Nutrition and Dietetics

The Associate in Science in Nutrition and Dietetics for Transfer (AS-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Nutrition and Dietetics at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (Pursuant to SB1440, Â§66746):
â€¢ 60 semester or 90 quarter CSU-transferable units
â€¢ the California General Education Transfer Curriculum (Cal-GETC) pattern
â€¢ a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district
â€¢ obtain a minimum grade point average (GPA) of 2.0

ADTs also require that students must earn a â€œCâ€ or better in all courses required for the major or area of emphasis. A â€Pâ€ (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
BIOL 440	General Microbiology (4)	4 - 5
or BIOL 442	General Microbiology and Public Health (5)	
CHEM 400	General Chemistry I	5
NUTRI 300	Nutrition	3
PSYC C1000	Introduction to Psychology (3)	3
or PSYC C1000H	Introduction to Psychology - Honors (3)	
List A:		
A minimum of 8 units from the following:		8
BIOL 430	Anatomy and Physiology (5)	
and BIOL 431	Anatomy and Physiology (5)	
CHEM 401	General Chemistry II (5)	
CHEM 420	Organic Chemistry I (5)	
PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
or ECON 310	Statistics for Business and Economics (3)	
or STAT C1000	Introduction to Statistics (4)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
List B:		
A minimum of 3 units from the following:		3
BIOL 300	The Foundations of Biology (3)	
or BIOL 310	General Biology (4)	
CHEM 423	Organic Chemistry - Short Survey (5)	
HM 310	Sanitation, Safety and Equipment (3)	
HM 315	Food Theory and Preparation (4)	
NUTRI 310	Cultural Foods of the World (3)	
or NUTRI 481	Honors - Cultural Foods of the World (3)	
SOC 300	Introductory Sociology (3)	
or SOC 480	Introductory Sociology - Honors (3)	
Total Units:		**26 - 27**

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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- explain the principles of nutrition and their effects on overall health status and chronic disease risk.
- analyze nutritional adequacy of a diet and recommend dietary changes to meet nutrition guidelines.
- demonstrate an understanding of the relationships between chemistry, biology, and nutrition.
- assess the validity of sources of nutrition information.
- interpret the findings of current nutrition research.

Career Information

This degree is designed to facilitate students' successful transfer to four-year colleges that prepare them to become registered dietitians. Organizations or companies that employ registered dietitians include hospitals, nursing homes, school food services, other health related facilities, college food

service departments, restaurants, public health agencies, nutrition programs, Women, Infants and Children (WIC) programs, Meals on Wheels, health clubs, weight management clinics, community wellness centers, food companies, contract food management companies, and food distribution companies.

Certificates of Achievement

Dietary Manager/Dietary Service Supervisor Certificate

The Dietary Manager/Dietary Service Supervisor Certificate provides certification for employment in nutritional care and dietary management within a health-care facility, such as a skilled nursing facility. This program meets the standards of training as specified by the California Department of Public Health (CDPH) and the Association of Nutrition and Foodservice Professionals (ANFP). Upon successful completion of the program, students are able to use the "Dietetic Service Supervisor (DSS)" title for employment in California. In addition, students are qualified to take the credentialing exam for the Certified Dietary Manager (CDM) certification, which is accepted nationwide.

Certificate Requirements

Course Code	Course Title	Units
HM 310	Sanitation, Safety and Equipment	3
HM 315	Food Theory and Preparation	4
NUTRI 130	Introduction to Dietary Management	2
NUTRI 132	Management of the Dietary Department in Health Care Facilities	3
NUTRI 133	Field Experience in Healthcare Facilities	2.5
NUTRI 134	Nutritional Care Management	3
NUTRI 135	Field Experience in Nutritional Care Management	2.5
Total Units:		**20**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify the location of applicable laws and regulations and determine compliance to regulatory requirements (state and federal), and determine acceptable standards of care in dietary services.
- identify the role and limitations (no scope of practice) of the Dietary Service Supervisor under law (Title 22) for the Operation of Food Service.
- participate with the Registered Dietitian (RD) in the timely review and revision of the facility's policies and procedures to ensure that they are in compliance with regulations and standards of practice.
- assist in the orientation of new employees, and in the ongoing, planned development of seasoned employees to ensure that they are competent to carry out the functions of the dietary service and trained in approved policies.
- assist in the development of Quality Assurance Programs to monitor staff practices for compliance, to determine training needs, and to evaluate resident/patient satisfaction.
- assist in the development of planned and disaster menus to meet the nutritional needs of resident/patient in accordance with the Recommended Dietary Allowances (RDAs).
- ensure that therapeutic menus and standardized recipes are followed, served and consumed in their appropriate form, as approved by RD.
- ensure that food is served by methods that conserve nutritive value, flavor and appearance and that it is prepared in a form designed to meet individual needs and substitutions are of similar nutritive value.
- maintain current profile cards, and provide assistive devices as needed.
- ensure that food is stored, prepared, distributed, and served under sanitary conditions to prevent food borne illness, including the sanitation oversight of equipment such as internal components of the ice machine, nurse pantry refrigerators and trash disposal systems.
- ensure that the food department runs smoothly, including food ordering and storage, according to applicable state requirements, staffing schedules, employee health, labor relations, safety programs and other duties as assigned by administration.

Career Information

Certified Dietary Manager in a Long Term Care Facility.

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Health Sciences Certificate

The Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Health Sciences recognizes English as a Second Language students' milestones in completing both advanced academic ESL course work and introductory coursework in several health science fields. It incentivizes them to continue taking courses in this discipline after completing higher level ESL courses and to obtain a Certificate of Achievement or an Associate degree for use in a workplace.

Certificate Requirements

Course Code	Course Title	Units
ESL 315	Intermediate-High Integrated Reading and Writing	6
ESL 325	Advanced-Low Integrated Reading and Writing	6
ESLG 320	Advanced-Low Grammar (3)	3
or ESLL 320	Advanced-Low Listening and Speaking (3)	
A minimum of 5 units from the following:		5
AH 112	Strategies for Student Success in Health Occupations (3)	
AH 311	Medical Language for Health-Care Providers (3)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
CHEM 305	Introduction to Chemistry (5)	
CISC 300	Computer Familiarization (1)	
COMM C1000	Introduction to Public Speaking (3)	
HCI 300	Introduction to Healthcare Interpreting (0.5)	
NUTRI 300	Nutrition (3)	
Total Units:		**20**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze, compose, and organize oral and written communication into effective documents and/or academic compositions.
- employ reading strategies.
- participate in in-depth discussions effectively.
- take clear notes.
- give oral presentations in a business/work environment.
- convey intended meaning and formulate and use a variety of interactive strategies effectively such as clarification, polite interruption, and agreement/disagreement strategies.
- research and critically evaluate information to create informed responses to issues and problems and design messages that adapt to target audiences in order to maximize communication effectiveness.
- demonstrate basic knowledge of introductory healthcare or scientific terms.
- employ effective communication in professional healthcare settings.

Career Information

Students who complete this Pathway to Health Sciences certificate will have gained knowledge in academic English and introductory skills in several health sciences fields, such as Healthcare Interpreting, Nutrition, and Allied Health.

Nutrition (NUTRI) Courses

NUTRI 130 Introduction to Dietary Management

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course provides an introduction to the profession of dietetics, with emphasis on a career as a dietary services supervisor (DSS). It examines current public policy and legislation related to the profession. It also includes the fundamentals of basic nutrition, individual's nutritional needs throughout the life cycle, health promotion, and disease prevention.

NUTRI 132 Management of the Dietary Department in Health Care Facilities

Units: 3

Hours: 54 hours LEC

Prerequisite: NUTRI 130 with a grade of "C" or better

Corequisite: NUTRI 133

Enrollment Limitation: Current ServSafe Certification

This course reviews the standards of management and food preparation as they apply to the quantity of food production in health care facilities. Topics include types and components of food production systems, work flow, menu implementation, emergency planning, maintenance of equipment, food production procedures, dietary staff schedules, and management.

NUTRI 133 Field Experience in Healthcare Facilities

Units: 2.5

Hours: 18 hours LEC; 81 hours LAB

Prerequisite: NUTRI 130 with a grade of "C" or better

Corequisite: NUTRI 132

Enrollment Limitation: Current TB clearance and other immunizations required by clinical facility.

This course offers field experience in healthcare facilities and is performed under professional supervision. Topics include food safety, food preparation, food procurement and budgeting, management in a foodservice department, residents' rights in food service, disaster relief feeding programs, getting ready for state inspection, and injury and illness prevention programs. A portion of this course includes 81 hours of professionally supervised field experience in foodservice/dietary departments of healthcare facilities, such as acute care hospitals and long term care facilities.

NUTRI 134 Nutritional Care Management

Units: 3

Hours: 54 hours LEC

Prerequisite: NUTRI 130 with a grade of "C" or better

Corequisite: NUTRI 135

This course is a study of nutrition therapeutic diets used in health care facilities. It emphasizes the modification of diets for various dietary needs of the long-term care resident.

NUTRI 135 Field Experience in Nutritional Care Management

Units: 2.5

Hours: 18 hours LEC; 81 hours LAB

Prerequisite: NUTRI 130 with a grade of "C" or better

Corequisite: NUTRI 134

Enrollment Limitation: Current TB clearance and other immunizations required by the healthcare facility.

This course provides field experience in nutritional care management in healthcare facilities. Topics include disorders of the gastrointestinal tract, diabetes, wasting disorders, nutrition, and mental health. A portion of this course includes 81 hours of professionally supervised field experience in foodservice/dietary departments of healthcare facilities, such as acute care hospitals and long term care facilities.

NUTRI 294 Topics in Nutrition and Foods

Units: 0.5 - 4

Hours: 9 - 54 hours LEC

Prerequisite: None.

This course provides opportunities to study current, controversial topics in nutrition which are either not included in current offerings or require emphasis beyond that offered in existing courses. A portion of this course may be offered in a TBA component of 4.5-27 hours which may include reading peer-reviewed research studies regarding a particular nutrition issue and formulating conclusions based upon study results and/or evaluating the scientific validity of a supplement claim.

NUTRI 295 Independent Studies in Nutrition and Foods

Units: 1 - 3

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

NUTRI 299 Experimental Offering in Nutrition and Foods

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

NUTRI 300 Nutrition

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L5; Local GE L7B

C-ID: C-ID NUTR 110

This course introduces biological science concepts through the study of nutrition, emphasizing interdisciplinary connections between biology, biochemistry, anatomy, and physiology to explain how nutrients interact with the human body. Students engage in scientific inquiry, including hypothesis testing and evaluation of evidence, to analyze and evaluate nutrition information. The course also explores contemporary nutrition controversies, their impact on society, and how scientific discoveries, along with their limitations, influence individual choices and public health policies.

NUTRI 302 Nutrition for Physical Performance

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

General Education: Local GE L5; Local GE L7B

This course presents a comprehensive study of nutrition and fitness as they apply to fitness, sport skill training, and athletic performance. It includes an in-depth study of essential nutrients and functions, chemical compositions of foods and their use in the body as they relate to physical performance, muscle strength development, cardiovascular fitness, and body composition.

NUTRI 307 Nutrition for Fitness

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers the basic principles of nutrition and the interactions between nutrition and fitness training. Topics include dietary practices and nutrient intake modifications that affect physical performance, including intake of energy nutrients, vitamins, water, electrolytes, and dietary supplements. It also covers the study of body weight and body composition, as well as factors that affect body weight and the effect of body composition on physical performance. This course is not open to students who have completed KINES 402.

NUTRI 310 Cultural Foods of the World

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course offers an anthropological perspective of traditional and contemporary food customs and cultures. Global food customs are compared including their social, religious, economic, and aesthetic significance. Topics include ethnocentrism, gender-related stereotypes, and racism as they relate to the availability, distribution, and preparation of food throughout the world. The course addresses the nutritional status of various cultures related to geographic, agricultural, and socioeconomic factors. This course is not open to students who have completed NUTRI 481.

NUTRI 320 Children's Health, Safety and Nutrition

Same As: ECE 415

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

C-ID: C-ID ECE 220

This course examines basic nutrition, health, and safety needs of children from the prenatal period through school age. Topics include introduction to early childhood curriculum, laws, regulations, standards, policies, and procedures related to child health, safety, and nutrition. It emphasizes integrating and maintaining the optimal health, safety, and nutritional concepts in everyday planning and program development for all children, along with the importance of collaboration with families and health professionals. This course is not open to students who have taken ECE 415.

NUTRI 324 Nutrition for Healthy Aging

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course focuses on the nutrition of older adults. Topics include the effects of nutrition on health and well-being and physiologic changes in aging, the effects of smell and taste on nutritional status, age-related changes in the gastrointestinal tract, risk factors for cardiovascular disease, as well as cancer and nutrition. This course is not open to students who have completed GERON 340.

NUTRI 481 Honors - Cultural Foods of the World

Units: 3

Hours: 54 hours LEC

Prerequisite: Placement into ENGL C1000H (formerly ENGWR 480) through the Los Rios placement process OR guided self-placement.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This seminar-style course offers an in-depth anthropological perspective of traditional and contemporary food customs and cultures. Global food customs are compared including their social, religious, economic, and aesthetic significance. Included are ethnocentrism, gender-related stereotypes, and racism as they relate to the availability, distribution, and preparation of food throughout the world. The nutritional status of various cultures as it relates to geographic, agricultural, and socioeconomic factors is studied. The specific cultural groups included are driven by student interests. This course is not open to students who have completed NUTRI 310.

NUTRI 495 Independent Studies in Nutrition and Foods

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

NUTRI 499 Experimental Offering in Nutrition and Foods

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Paralegal Studies

Overview

The Paralegal Studies program at American River College is approved by the American Bar Association. ARC's Legal Studies program has been preparing students for entry-level positions in this profession for over 30 years.

California Business & Professions Code (B & P Code) section 6450 defines a "paralegal" as a person qualified by education, training, or work experience, who either contracts with or is employed by an attorney, law firm, corporation, governmental agency, or other entity, and who performs substantial legal work under the direction and supervision of an active member of the State Bar of California or an attorney practicing law in the federal courts.

Tasks performed by a paralegal include, but are not limited to, case planning, development, and management; legal research; interviewing clients; fact gathering and retrieving information; drafting and analyzing legal documents; collecting, compiling, and utilizing technical information to make an independent decision and recommendation to the supervising attorney; and representing clients before a state or federal administrative agency if that representation is permitted by statute, court rule, or administrative rule or regulation.

Paralegals may not provide legal advice, nor may they may provide legal services directly to the public, except as permitted by law.

NOTE: At least nine (9) semester credits of legal speciality coursework must be completed through synchronous instruction.

Degrees and Certificates Offered

A.A. in Paralegal Studies

Paralegal Studies Certificate

Division Dean: Kirsten Corbin

Department Chair: Kate Chang

Phone: (916) 484-8361

Email: arcbusclerk@arc.losrios.edu

Associate Degree

A.A. in Paralegal Studies

This degree prepares students to work in the legal field as an entry-level paralegal. It covers basic substantive and procedural areas including civil litigation, legal research and legal writing, contracts, and torts. This degree is in full compliance with California Business and Professions Code section 6450 regarding preparation for work in this field.

Students must complete 30 units of legal specialty courses, 9 of which must be completed through synchronous instruction. In addition, the American Bar Association (ABA) has specific requirements for 18 units of additional non-paralegal

coursework (ABA Breadth). Students are encouraged to consult a counselor or the department chair for courses that satisfy the ABA Breadth requirements.

Degree Requirements

Course Code	Course Title	Units
PLGL 300	Introduction to Law and the American Legal System	3
PLGL 310	Civil Procedures and Litigation	3
PLGL 312	Torts and Personal Injury	3
PLGL 314	Contract Law	3
PLGL 320	Legal Research	3
PLGL 321	Legal Writing	3
PLGL 350	Law Office Management	3
A minimum of 9 units from the following:		9
PLGL 322	Advanced Legal Research and Writing (3)	
PLGL 324	Law and Motion Practice (3)	
PLGL 330	Family Law and Procedure (3)	
PLGL 332	Administrative Law and Procedure (3)	
PLGL 334	Criminal Law and Procedure (3)	
PLGL 336	Immigration Law (3)	
PLGL 342	Evidence (3)	
PLGL 344	Interviewing and Investigating (3)	
PLGL 352	Legal Technology (3)	
PLGL 360	Corporations Law (3)	
PLGL 361	Trial Preparation (3)	
PLGL 362	Estate Planning and Probate Procedure (3)	
PLGL 364	Landlord Tenant Law (3)	
PLGL 366	Basic Bankruptcy Law (3)	
PLGL 368	Worker's Compensation Law (3)	
PLGL 498	Work Experience in Legal Assisting (0.5 - 4)	
A minimum of 18 units from the following:		18
ABA Breadth: Courses from at least three different areas of the Cal-GETC pattern, excluding performance courses.		
Total Units:		**48**

The Paralegal Studies Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- incorporate basic legal theories in various substantive areas of law as required by a supervising attorney.
- define and use legal terminology accurately and appropriately.
- differentiate between relevant and irrelevant information and evidence.
- research relevant legal authority.
- verify the currency of relevant legal authority.
- draft correspondence to be sent to clients or opposing counsel and others.
- prepare basic legal documents for signature and submission to court by the supervising attorney.
- organize professional assignments efficiently.
- support the supervising attorney in all phases of legal practice.
- demonstrate ethical behavior in the legal setting.
- recognize acts that may constitute the unlicensed practice of law.
- express their thoughts effectively, both orally and in writing, with attorneys and clients.

Career Information

Paralegals and legal assistants are found in all types of organizations, but most work for law firms, corporate legal departments, and government agencies. They usually work full time, and some may have to work more than 40 hours a week to meet deadlines. About 45,800 openings for paralegals and legal assistants are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire.

Certificate of Achievement

Paralegal Studies Certificate

Students must possess an A.A. degree or higher from a regionally accredited institution to be eligible for the certificate. The Paralegal Studies Certificate is a one-year course of study consisting of 30 units of legal specialty courses and a minimum of 9 units must be completed through synchronous instruction. Legal courses cover basic substantive and procedural areas including civil litigation, legal research and legal writing, contracts, and torts, in addition to electives within the program. This certificate is in full compliance with California Business and Professions Code section 6450 regarding preparation for work in this field.

Certificate Requirements

Course Code	Course Title	Units
PLGL 300	Introduction to Law and the American Legal System	3
PLGL 310	Civil Procedures and Litigation	3
PLGL 312	Torts and Personal Injury	3
PLGL 314	Contract Law	3
PLGL 320	Legal Research	3
PLGL 321	Legal Writing	3
PLGL 350	Law Office Management	3
A minimum of 9 units from the following:		9
PLGL 322	Advanced Legal Research and Writing (3)	
PLGL 324	Law and Motion Practice (3)	
PLGL 330	Family Law and Procedure (3)	
PLGL 332	Administrative Law and Procedure (3)	
PLGL 334	Criminal Law and Procedure (3)	
PLGL 336	Immigration Law (3)	
PLGL 342	Evidence (3)	
PLGL 344	Interviewing and Investigating (3)	
PLGL 352	Legal Technology (3)	
PLGL 360	Corporations Law (3)	
PLGL 361	Trial Preparation (3)	
PLGL 362	Estate Planning and Probate Procedure (3)	
PLGL 364	Landlord Tenant Law (3)	
PLGL 366	Basic Bankruptcy Law (3)	
PLGL 368	Worker's Compensation Law (3)	
PLGL 498	Work Experience in Legal Assisting (0.5 - 4)	
Total Units:		**30**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- incorporate basic legal theories in various substantive areas of law as required by a supervising attorney.
- define and use legal terminology accurately and appropriately.
- differentiate between relevant and irrelevant information and evidence.
- research relevant legal authority.
- verify the currency of relevant legal authority.
- draft correspondence to be sent to clients or opposing counsel and others.
- prepare basic legal documents for signature and submission to court by the supervising attorney.
- organize professional assignments efficiently.
- support the supervising attorney in all phases of legal practice.
- demonstrate ethical behavior in the legal setting.
- recognize acts that may constitute the unlicensed practice of law.
- express their thoughts effectively, both orally and in writing, with attorneys and clients.

Career Information

Paralegals and legal assistants are found in all types of organizations, but most work for law firms, corporate legal departments, and government agencies. They usually work full time, and some may have to work more than 40 hours a week to meet deadlines. About 45,800 openings for paralegals and legal assistants are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire.

Paralegal (PLGL) Courses

PLGL 299 Experimental Offering in Paralegal

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

PLGL 300 Introduction to Law and the American Legal System

Units: 3

Hours: 54 hours LEC

Prerequisite: ENGL C1000, ENGL C1000H, or ESLW 340 with a grade of "C" or better

Transferable: CSU

This course introduces the American legal system, covering its historical roots, court structures, lawmaking processes, and key legal fields. Students learn the role of paralegals and ethics in legal practice, the basics of legal research and writing, and the essentials of civil and criminal law. This course was formerly known as LA 300 and is not open to students who have successfully completed that course.

PLGL 310 Civil Procedures and Litigation

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Corequisite: PLGL 300

Transferable: CSU

This course is an introduction to the California court system with emphasis on understanding the practical aspects of litigation and the proper procedures required by statutes and rules of court. It covers the phases of California court procedure, including state and federal constitutional limitations, jurisdiction, venue, pleadings, and motions. It also includes the forms by which matters are submitted to the court system from pre-litigation through appeals. This course was formerly known as LA 310 and is not open to students who have successfully completed that course.

PLGL 312 Torts and Personal Injury

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Corequisite: PLGL 300

Transferable: CSU

This course is an overview of substantive tort law as it pertains to personal injury (PI) cases. Students explore key concepts, including negligence, intentional torts, and strict liability, as well as the essential elements required to establish liability and the defenses available to defendants. The course also covers pretrial procedures, focusing on discovery, settlement negotiations, and preparation of witnesses and trial materials. This course was formerly known as LA 312 and is not open to students who have successfully completed that course.

PLGL 314 Contract Law

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Corequisite: PLGL 300

Transferable: CSU

This course introduces essential contract principles, including formation, enforceability, third-party rights, performance, breach, and remedies. Students analyze contract disputes, draft enforceable agreements, and identify common defenses, gaining practical skills for work in the legal field. This course was formerly known as LA 314 and is not open to students who have successfully completed that course.

PLGL 320 Legal Research

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Corequisite: PLGL 300

Transferable: CSU

This course equips paralegals with foundational skills in legal research. Students learn to locate, interpret, and apply primary and secondary legal sources effectively. Topics include analyzing court decisions, briefing cases, and navigating essential research tools to support legal analysis and case preparation. This course was formerly known as LA 320 and is not open to students who have successfully completed that course.

PLGL 321 Legal Writing

Units: 3

Hours: 54 hours LEC

Prerequisite: PLGL 320 with a grade of "C" or better

Transferable: CSU

This course is a continuation of PLGL 320: Legal Research. Students learn to synthesize information effectively and apply it to produce key written documents used in a law office, including interoffice memoranda, court briefs, and client correspondence. Through practical exercises and feedback, students enhance their writing skills, ensuring clarity, accuracy, and professionalism in their legal communications. This course was formerly known as LA 321 and is not open to students who have successfully completed that course.

PLGL 322 Advanced Legal Research and Writing

Units: 3

Hours: 54 hours LEC

Prerequisite: PLGL 321 with a grade of "C" or better

Transferable: CSU

This elective course builds on the foundational skills from PLGL 320 and PLGL 321, emphasizing advanced legal research and analytical writing. It focuses on current codes, rules, and practices related to e-discovery and metadata mining. Students learn to draft motions regarding electronically stored information. The course also covers informal legal research and writing skills like those related to interviewing and investigating. Extensive use of computers and resources like Westlaw is included. This course was formerly known as LA 322 and is not open to students who have successfully completed that course.

PLGL 324 Law and Motion Practice

Units: 3

Hours: 54 hours LEC

Prerequisite: PLGL 320 and 321 with grades of "C" or better

Transferable: CSU

This course builds on what students learned in PLGL 320 and PLGL 321 to provide practical training in California law and motion practice. Students will develop advanced legal research and writing skills while drafting and preparing common motions, oppositions, and supporting documents used in California courts. The course deepens legal research and writing practice while also exposing students to real-world paralegal responsibilities related to motion drafting, review, and preparation.

PLGL 330 Family Law and Procedure

Units: 3

Hours: 54 hours LEC

Prerequisite: PLGL 300 with a grade of "C" or better

Advisory: PLGL 320

Transferable: CSU

This course covers California Family Law, focusing on dissolution procedures, property division, and non-marital relationships. Emphasis is placed on legal procedures, the preparation of necessary forms, and the role of the paralegal in assisting family law attorneys throughout the litigation process. This course was formerly known as LA 330 and is not open to students who have successfully completed that course.

PLGL 332 Administrative Law and Procedure

Units: 3

Hours: 54 hours LEC

Prerequisite: PLGL 300 with a grade of "C" or better

Transferable: CSU; UC (UC credit limitation: ADMJ 320, LA 332 and LA 334 combined: maximum credit, 1 course)

This course covers administrative law and procedure. Topics include administrative due process and comparison of administrative law to civil and criminal law. This course was formerly known as LA 332 and is not open to students who have successfully completed that course.

PLGL 334 Criminal Law and Procedure

Units: 3

Hours: 54 hours LEC

Prerequisite: PLGL 300 with a grade of "C" or better

Transferable: CSU; UC (UC credit limitation: ADMJ 320, LA 332 and LA 334 combined: maximum credit, 1 course)

This course offers a comprehensive overview of substantive criminal law and the procedural rules governing the criminal justice system. Students examine key concepts, including the classification of crimes, elements of offenses and defenses, as well as the criminal procedure from arrest and filing of charges to trial, conviction, and appeal. Emphasis is placed on understanding the rights of the accused, the roles of various participants in the criminal justice process, and the impact of legal precedents on criminal law. This course was formerly known as LA 334 and is not open to students who have successfully completed that course.

PLGL 336 Immigration Law

Units: 3

Hours: 54 hours LEC

Prerequisite: PLGL 300 with a grade of "C" or better

Transferable: CSU

This course introduces students to U.S. immigration and naturalization law, including the roles of key federal agencies. Students learn to prepare immigration documents, identify immigrant and nonimmigrant statuses, and understand procedures for deportation, exclusion, and asylum, with an emphasis on client interviewing skills. This course was formerly known as LA 336 and is not open to students who have successfully completed that course.

PLGL 342 Evidence

Units: 3

Hours: 54 hours LEC

Prerequisite: PLGL 300 with a grade of "C" or better

Advisory: PLGL 310

Transferable: CSU

This course covers federal and state evidence rules for trial preparation and litigation support. Topics include testimony, hearsay, documentary and demonstrative evidence, deposition transcripts, discovery objections, and the paralegal's role in trial preparation and evidence management, with ethical considerations. This course was formerly known as LA 342 and is not open to students who have successfully completed that course.

PLGL 344 Interviewing and Investigating

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Corequisite: PLGL 300

Transferable: CSU

This course introduces students to the principles and practices of effective legal interviewing and investigation within the paralegal profession. Emphasis is placed on developing analytical, interpersonal, and ethical skills required to gather, evaluate, and document information from clients, witnesses, and other sources. Students learn to conduct interviews and investigations under attorney supervision, while adhering to professional responsibility standards and rules governing legal proceedings.

PLGL 350 Law Office Management

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Corequisite: PLGL 300

Transferable: CSU

This course covers aspects of the paralegal's role in a law office. Law office technology, accounting, time and records management, and communication skills are examined. This course was formerly known as LA 350 and is not open to students who have successfully completed that course.

PLGL 352 Legal Technology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Corequisite: PLGL 300

Transferable: CSU

This course provides an introduction to the various technological tools and services used in the legal field. It covers, but is not limited to, technology for conducting electronic discovery, filing documents with the court, conducting legal research, and general case management. This course was formerly known as LA 352 and is not open to students who have successfully completed that course.

PLGL 360 Corporations Law

Units: 3

Hours: 54 hours LEC

Prerequisite: PLGL 300 with a grade of "C" or better

Transferable: CSU

This course examines essential legal principles governing corporations, from formation to dissolution. Topics include business structures, corporate advantages, financing, statutory compliance, shareholder agreements, mergers, and dissolution. The course also introduces securities regulations and ethical considerations in corporate governance. This course was formerly known as LA 360 and is not open to students who have successfully completed that course.

PLGL 361 Trial Preparation

Units: 3

Hours: 54 hours LEC

Prerequisite: PLGL 300 and 310 with grades of "C" or better

Transferable: CSU

This course builds on the civil litigation foundations introduced in PLGL 310 and provides practical training in preparing a case for trial from a paralegal's perspective. Students learn to organize and analyze discovery, manage evidence and exhibits, prepare witnesses, assemble trial notebooks, support attorneys in pretrial and courtroom procedures, and apply ethical and professional standards throughout the trial process.

PLGL 362 Estate Planning and Probate Procedure

Units: 3

Hours: 54 hours LEC

Prerequisite: PLGL 300 with a grade of "C" or better

Transferable: CSU

This course covers estate planning, including property transfer methods, and probate procedures for testate and intestate estates. Students learn to prepare and file necessary documents, identify ethical issues, and recognize when to seek additional professional assistance. This course was formerly known as LA 362 and is not open to students who have successfully completed that course.

PLGL 364 Landlord Tenant Law

Units: 3

Hours: 54 hours LEC

Prerequisite: PLGL 300 with a grade of "C" or better

Transferable: CSU

This course focuses on the most common types of landlord-tenant disputes. It covers litigation and non-litigation matters. Topics also include the different types of tenancy, what

constitutes habitability, and tenant's rights and obligations. This course was formerly known as LA 364 and is not open to students who have successfully completed that course.

PLGL 366 Basic Bankruptcy Law

Units: 3

Hours: 54 hours LEC

Prerequisite: PLGL 300 with a grade of "C" or better

Transferable: CSU

This course provides an introduction to the essential procedures and practical aspects of representing debtors and creditors in bankruptcy cases. Topics include voluntary and involuntary bankruptcy filings, the preparation and filing of necessary statements and schedules, and the roles and responsibilities of paralegals in managing documentation and supporting litigation. This course was formerly known as LA 366 and is not open to students who have successfully completed that course.

PLGL 368 Workers' Compensation Law

Units: 3

Hours: 54 hours LEC

Prerequisite: PLGL 300 with a grade of "C" or better

Transferable: CSU

This course provides an overview of the Workers' Compensation Law in California. Students learn to prepare and file necessary documents, identify ethical issues, and understand legal arguments relevant to this field of law. This course was formerly known as LA 368 and is not open to students who have successfully completed that course.

PLGL 498 Work Experience in Legal Assisting

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Legal Assisting Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of legal assisting. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

PLGL 499 Experimental Offering in Paralegal

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Paramedic

Overview

Paramedicine is an allied health specialty whose practitioners respond to emergencies before a patient reaches a hospital, rendering basic and advanced medical treatment before and during transport to a medical facility. Classroom, clinical, and field internship training prepares paramedics to assess and treat a variety of medical emergencies. The knowledge, skills, and experience gained through the 11- to 12-month paramedic program allow students to meet the responsibilities outlined in the Department of Transportation's Emergency Medical Services Education Standards.

Minimum Expectation Goal

The minimum expectation goal of the ARC program is to prepare paramedics who are competent in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to enter the profession of paramedicine.

Program Student Results/Outcomes and Positive Placement Data

The most current CoAEMSP Annual Report was for the calendar year 2025. The most recent success rate for the National Registry of EMT Paramedic/State Cognitive exam is 100% with an N=19. The most recent positive placement rate for graduates was 100%. Positive placement is defined by the CoAEMSP as "employed full or part-time in a related field and/or continuing his/her education and/or serving in the military." Positive placement is measured at the completion of the program. The 2024 retention rate was 75.6% again, with an N=35. The 2025 retention rate was 59.4%* with an N=32. Students left for the program for academic reasons, financial hardship, and one unreported issue.

The American River College Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs (https://www.caahep.org/) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Profession (CoEMSP)

Degrees and Certificates Offered

A.S. in Paramedic

Paramedic Certificate

Emergency Medical Technician (EMT) Certificate

Dean: Narinedat Madramootoo

Department Chair: Grant Goold

Phone: (916) 484-8902

Email: askhb-healthed@arc.losrios.edu

Associate Degree

A.S. in Paramedic

Paramedicine is an allied health specialty whose practitioners respond to emergencies before a patient reaches a hospital, rendering basic and advanced medical treatment before and during transport to a medical facility. Classroom, clinical and field internship training prepares paramedics to assess and treat a wide variety of medical emergencies. The knowledge, skills and experience gained through the paramedic program allows students to meet the responsibilities outlined in the Department of Transportation's Emergency Medical Services Education Standards.

Degree Requirements

Course Code	Course Title	Units
PMED 114	Preparatory	11
PMED 115	Clinical Behavior, Patient Assessment, and Airway Management	5
PMED 121	Prehospital Medicine and Clinical Internship	12.5
PMED 131	Trauma, Shock, EMS Operations, and Field Internship	17.5
Total Units:		**46**

The Paramedic Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Graduation from an accredited high school in the United States, or successful completion of General Education Development (GED) or the California High School Proficiency Exam (CHSPE).

- Students with a high school diploma from a school outside the United States must have transcripts evaluated by an approved independent agency. Such cases will be evaluated on an individual basis.
- Current curriculum planning summary sheet within the semester in which the pre-enrollment packet is being submitted.
- Completion of the program application (pre-enrollment packet) and submittal prior to the deadline.
- Current certification as an Emergency Medical Technician-Basic and approximately one year verified EMS experience or a minimum of 280 verifiable EMS patient encounters acting as a team lead. See program website for examples of commonly acceptable experience and a patient encounter tracking form.

Enrollment Process

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

- Pre-enrollment applications to the program may be obtained from the Health and Education Division office or at http://arc.losrios.edu/edhealth/paramed.html. Applications for Spring admission will be available in September and must be submitted to the division office no later than the first Friday in December by 4:00 p.m. Please refer to the Paramedic Information Sheet for the most current information.
- Only students who meet the educational requirements and follow the pre-enrollment procedures will be considered for the program. Meeting all of these requirements does not guarantee enrollment in the program.
- Class size is limited. If the pre-enrollment pool is greater than the program can accept, students are chosen based on a computerized random selection process from among the qualified candidates.
- Students accepted into the Paramedic program are required to have a physical examination, approved immunizations, drug screen, background check, program uniform, required learning materials, and malpractice insurance prior to deadlines set by the program.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- synthesize pre-arrival information and initial assessment findings to classify patient acuity.
- utilize support personnel and equipment to maximize scene and patient management.
- diagnose patient conditions using auditory, tactile and visual senses.
- correlate signs and symptoms of common diseases to emergency patients and their primary complaint.
- formulate competent treatment plans for medical or trauma patients.
- report assessment findings, diagnosis, and treatment plans to appropriate health professionals.
- develop and implement strategies to strengthen personal empathy and sympathy for prehospital patients.
- apply ethical practices during all phases of an emergency medical response.
- demonstrate advanced life support skills competency as set by the National Registry of Emergency Medical Technicians.
- assess scene and personal safety before, during, and after each emergency response.
- compose accurate, timely and specific patient care reports in accordance with local, regional, and state documentation standards.

Career Information

The ARC Paramedic program is designed to prepare the student for licensure as a paramedic, working for a fire department, rescue squad, private provider, industry, clinic or hospital.

Certificate of Achievement

Paramedic Certificate

Paramedicine is an allied health specialty whose practitioners respond to emergencies before a patient reaches a hospital, rendering basic and advanced medical treatment before and during transport to a medical facility. Classroom, clinical and field internship training prepares paramedics to assess and treat a wide variety of medical emergencies. The knowledge, skills and experience gained through the paramedic program allows students to meet the responsibilities outlined in the Department of Transportation's Emergency Medical Services Education Standards.

Certificate Requirements

Course Code	Course Title	Units
PMED 114	Preparatory	11
PMED 115	Clinical Behavior, Patient Assessment, and Airway Management	5
PMED 121	Prehospital Medicine and Clinical Internship	12.5
PMED 131	Trauma, Shock, EMS Operations, and Field Internship	17.5

Course Code	Course Title	Units
Total Units:		**46**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Graduation from an accredited high school in the United States, or successful completion of the General Education Development (GED or the California High School Proficiency Exam (CHSPE).
- Students with a high school diploma from a school outside the United States must have transcripts evaluated by an approved independent agency. Such cases will be evaluated on an individual basis.
- Current curriculum planning summary sheet within the semester in which the pre-enrollment packet is being submitted.
- Completion of the program application (pre-enrollment packet) and submittal prior to the deadline.
- Current certification as an Emergency Medical Technician-Basic and approximately one year verified EMS experience or a minimum of 280 verifiable EMS patient encounters acting as a team lead. See program website for examples of commonly acceptable experience and a patient encounter tracking form.

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- Only students who meet the educational requirements and follow the pre-enrollment procedures will be considered for the program. Meeting all of these requirements does not guarantee enrollment in the program.
- Class size is limited. If the pre-enrollment pool is greater than the program can accept, students are chosen based on a computerized random selection process from among the qualified candidates.
- Students accepted into the Paramedic program are required to have a physical examination, approved immunizations, drug screen, background check, program uniform, required learning materials, and malpractice insurance prior to deadlines set by the program.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- synthesize pre-arrival information and initial assessment findings to classify patient acuity.
- utilize support personnel and equipment to maximize scene and patient management.
- diagnose patient conditions using auditory, tactile and visual senses.
- correlate signs and symptoms of common diseases to emergency patients and their primary complaint.
- formulate competent treatment plans for medical or trauma patients.
- report assessment findings, diagnosis, and treatment plans to appropriate health professionals.
- develop and implement strategies to strengthen personal empathy and sympathy for prehospital patients.
- apply ethical practices during all phases of an emergency medical response.
- demonstrate advanced life support skills competency as set by the National Registry of Emergency Medical Technicians.
- assess scene and personal safety before, during, and after each emergency response.
- compose accurate, timely and specific patient care reports in accordance with local, regional, and state documentation standards.

Career Information

The ARC Paramedic program is designed to prepare students for licensure as a paramedic, working for a fire department, rescue squad, private provider, industry, clinic, or hospital.

Certificate

Emergency Medical Technician (EMT) Certificate

This program prepares students to function as certified Emergency Medical Technicians. Training topics include the skills necessary to provide emergency medical care at a basic life support level with a fire, ambulance, or other specialized service. This program is conducted in compliance with Title 22,

Division 9, Chapter 2 of the California Code of Regulations and Emergency Medical Technician (EMT). A "C" or better is required to obtain a course completion certificate.

Certificate Requirements

Course Code	Course Title	Units
EMT 110	Emergency Medical Technician (EMT) Didactic	6
EMT 111	Emergency Medical Technician (EMT) Practicum	1
Total Units:		**7**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Documentation of current American Heart Association CPR Basic Life Support certification. No other form of CPR certification is accepted. Students must be present and provide a copy of the AHA CPR certification on the first day of the course. Not open to students with current NREMT or California State certification or licensure as an EMT, EMT-Basic, Advanced EMT or paramedic.

Enrollment Process

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

- Verification of current American Heart Association Basic Life Support CPR certification. No other form of CPR certification is accepted. Students must be present and provide a copy of the AHA CPR certification on the first day of the course. Not open to students with current NREMT or California State certification or licensure as an EMT, EMT-Basic, Advanced EMT or paramedic.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate the nature and seriousness of the patient's condition or extent of injuries.
- apply emergency medical care based on assessments and findings.
- demonstrate proper procedures in lifting, moving, and positioning a patient to minimize discomfort and prevent further injury.
- utilize communicating, transporting, and record keeping skills.

Career Information

Emergency Medical Technicians operate in a variety of settings from public emergency services, private industry and health care facilities. EMT employment varies from community to community and is considered a growing occupation within the Allied Health professions.

Paramedic (PMED) Courses

PMED 105 Prehospital Pharmacology

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Advisory: Successful completion of Prealgebra; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course provides basic instruction in prehospital pharmacology and calculating medication dosages.

PMED 106 Emergency Medical Technician Pre-hospital Practices and Internship

Units: 6.5

Hours: 36 hours LEC; 243 hours LAB

Prerequisite: Current California State Emergency Medical Technician certification.

Corequisite: NURSE 320 or PMED 105

Enrollment Limitation: A background check, drug screening, proof of current immunizations and malpractice insurance are required. Current California State Emergency Medical Technician (EMT) Certification and Professional BLS CPR certification from the American Heart Association. Only AHA BLS CPR certification will be accepted.

Advisory: AH 311 and BIOL 304

This course provides expanded education in Emergency Medical Services (EMS) related topics, including assisting with Advanced Life Support (ALS) procedures as well as patient assessment and management training through patient simulation, clinical observation, and field experience. It can also serve as partial preparation for application to the American River College Paramedic Program.

PMED 108 Emergency Medical Response

Units: 3

Hours: 45 hours LEC; 27 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. A certificate of completion is available upon successful completion of this course.

PMED 110 Introduction to Advanced Prehospital Care

Units: 12

Hours: 144 hours LEC; 216 hours LAB

Prerequisite: BIOL 304 and PMED 105 with grades of "C" or better

Enrollment Limitation: Acceptance into the Paramedic Program

Advisory: AH 311 and HCD 114; AND successful completion of Prealgebra; AND eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course covers the didactic material and the related skills necessary to establish a foundation for subsequent prehospital patient assessment and management. Topics include preparatory, human body and human systems, pharmacology, patient assessment, airway management, trauma management, and respiratory and cardiac emergencies.

PMED 114 Preparatory

Units: 11

Hours: 168 hours LEC; 108 hours LAB

Prerequisite: EMT 110 and 111 with grades of "C" or better

Enrollment Limitation: Acceptance into the Paramedic Program

This course covers didactic materials and related skills considered foundational to the practice of paramedicine. The course topics include: Emergency Medical System (EMS), the safety/well-being of the paramedic, medical legal/ethical, anatomical and physiology, pathophysiology of all human systems, medical terminology, oral communications, and life span development. Topics include principles of public health and epidemiology including public health emergencies, health promotion and illness and injury prevention. This course also integrates knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.

PMED 115 Clinical Behavior, Patient Assessment, and Airway Management

Units: 5

Hours: 80 hours LEC; 30 hours LAB

Prerequisite: PMED 114 with a grade of "C" or better

Enrollment Limitation: Acceptance into the Paramedic Program

This course covers the didactic material and the related skills necessary to establish a foundation for subsequent prehospital clinical judgment, patient assessment and management. It also focuses on airway management, respiration and ventilation. Primary and secondary assessments, therapeutic communication, cultural humility, professionalism, decision making, and team dynamics will be covered.

PMED 120 Clinical Internship

Units: 7

Hours: 54 hours LEC; 216 hours LAB

Prerequisite: PMED 110 with a grade of "B" or better.

Enrollment Limitation: Current Emergency Medical Technician certification. Current student enrolled in the Paramedic program.

This course provides an opportunity to apply the cognitive knowledge and psychomotor skills gained in PMED 110 to patient care in a hospital or other approved clinical setting. This course provides for increasing assessment techniques and advanced prehospital skills. Field trips may be required. A portion of this course may be offered in a TBA component of 216 hours which may include direct patient care in a clinical setting.

PMED 121 Prehospital Medicine and Clinical Internship

Units: 12.5

Hours: 175 hours LEC; 168 hours LAB

Prerequisite: PMED 115 with a grade of "C" or better

Enrollment Limitation: Acceptance into the Paramedic Program

This course integrates assessment findings with principles of epidemiology and pathophysiology to formulate a clinical impression and implement a treatment/disposition plan for a patient with a medical complaint. The course also includes a clinical internship with regional hospital partners.

PMED 125 Introduction to Paramedicine

Units: 5.5

Hours: 45 hours LEC; 162 hours LAB

Prerequisite: BIOL 304, PMED 105, and PMED 106 with grades of "C" or better

Enrollment Limitation: Acceptance into the paramedic program. Successful completion a background, drug screen, and health physical exam as well as provide proof of current American Heart Association BLS Provider CPR certification and immunizations prior to enrollment into the course. Students must maintain current EMT licensure at all times throughout the course.

Advisory: AH 311 and HCD 114

This course covers the didactic and psychomotor material necessary to establish a foundation for subsequent paramedic prehospital patient assessment and management. Topics include preparatory, human body and human systems, pharmacology, patient assessment, and airway management.

PMED 126 Paramedic Practices I

Units: 7

Hours: 54 hours LEC; 216 hours LAB

Prerequisite: PMED 125 with a grade of "C" or better

Enrollment Limitation: Acceptance into the paramedic program. Current EMT licensure must be maintained at all times throughout the course.

This course covers the didactic and psychomotor material necessary to establish a foundation for emergency care for patients suffering from respiratory, cardiac, shock, and traumatic emergencies.

PMED 127 Paramedic Practices II

Units: 7

Hours: 54 hours LEC; 216 hours LAB

Prerequisite: PMED 126 with a grade of "C" or better

Enrollment Limitation: Acceptance into the paramedic program. Current EMT licensure must be maintained at all times throughout the course.

This course covers the didactic and psychomotor material necessary to establish a foundation for emergency care for patients suffering from medical, obstetric, pediatric and neonatal emergencies.

PMED 130 Prehospital Field Internship

Units: 14

Hours: 54 hours LEC; 600 hours LAB

Prerequisite: PMED 120 with a grade of "B" or better.

Enrollment Limitation: Current EMT certification. Current student enrolled in the Paramedic program.

This course provides paramedic students with hands-on prehospital experiences and is the final course in the series preparing for a California paramedic license. Under the direct supervision and evaluation of a licensed paramedic or a mobile intensive care nurse, interns complete a prehospital field experience.

PMED 131 Trauma, Shock, EMS Operations, and Field Internship

Units: 17.5

Hours: 114 hours LEC; 603 hours LAB

Prerequisite: PMED 121 with a grade of "C" or better

Enrollment Limitation: Acceptance into the Paramedic Program

This course integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a treatment/disposition plan for a patient with a traumatic complaint. The course also provides awareness of EMS operational practices, and includes a field internship with regional Emergency Medical Services (EMS) partners.

PMED 140 Pediatric Advanced Life Support Certification

Units: 0.5

Hours: 6 hours LEC; 12 hours LAB

Prerequisite: None.

Enrollment Limitation: Current Provider C Basic Cardiac Life Support card or county-approved equivalent certificate. Current licensure as a paramedic, nurse, physician, or allied health professional, or current enrollment in the last semester of an allied health program.

This course provides education modules specific to pediatric emergencies for health care professionals. Certification in Pediatric Advanced Life Support (PALS) is granted to students who successfully complete the course.

PMED 142 Advanced Cardiac Life Support Certification

Units: 0.5

Hours: 6 hours LEC; 12 hours LAB

Prerequisite: None.

Enrollment Limitation: Current Provider C Basic Cardiac Life Support Card, equivalent licensure as a paramedic, nurse, physician, or allied health professional, or current enrollment in an allied health program.

This course provides education modules specific to adult cardiac emergencies for health care professionals. Certification in Advanced Cardiac Life Support (ACLS) is granted to students who successfully complete the course.

PMED 146 Prehospital Trauma Life Support

Units: 0.5

Hours: 5.5 hours LEC; 10.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Current licensure as an emergency medical technician (EMT), paramedic, nurse, physician, or allied health professional, or current enrollment in the last semester of an allied health program.

This course is designed to improve the quality of trauma care and decrease mortality by stressing the treatment of the multisystem trauma patient. It utilizes the internationally recognized National Association of EMTs (NAEMT) Prehospital Trauma Life Support (PHTLS) curriculum. PHTLS is appropriate for EMTs, paramedics, nurses, physician assistants, physicians, and other prehospital providers.

PMED 160 Introductory Wilderness Medicine

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

This course provides the didactic material and related skills necessary to establish a foundation of medical care in the wilderness setting. Topics include anatomy and physiology, care of traumatic injuries, patient assessment, environmental injuries, medical emergencies, common simple wilderness medical problems, basic wilderness survival for the initial responder, improvised bleeding control in the field setting, and selecting and caring for wilderness medical equipment and supplies. This course emphasizes improvised care options and long-term care in field settings.

PMED 161 Advanced Wilderness Medicine

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: PMED 160

This course provides the didactic material and related skills necessary to establish an advanced level of medical care in the wilderness setting. Topics include anatomy and physiology, improvised airway control, principles of musculoskeletal care, synthesis of wilderness medicine and urban care, and common simple wilderness medical problems. Additionally, basic wilderness survival for the wilderness responder, and selecting and caring for wilderness medical equipment and supplies are covered. This course emphasizes improvised care options and long-term care in remote field settings.

PMED 165 EMS Search and Technical Rescue

Units: 2

Hours: 27 hours LEC; 27 hours LAB

Prerequisite: None.

This course provides a foundation in several technical rescue disciplines. Practical applications of water rescue, low angle and high angle rescue, and urban search and rescue are covered. Additionally, basic survival skills in rescue environments for the Emergency Medical Technician-Paramedic (EMT-P), and selecting and caring for rescue equipment and supplies are covered. This course emphasizes scenario-based learning in safely assessing, managing, and pre-planning for the technical rescue environment.

PMED 295 Independent Studies in Paramedic

Units: 1 - 3

Prerequisite: None.

Course description:
PMED 295 is an opportunity for the student to extend classroom experience in this subject area, while working independently of a formal classroom situation. PMED 295 is an extension of work offered in a specific class in the college catalog. To be eligible for PMED 295, students must have completed the basic regular catalog course at American River College. They must also discuss the study project with a professor in this subject area and secure prior approval. Only one independent study for each catalog course will be allowed.

PMED 298 Work Experience in Paramedic

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Paramedic faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the paramedic field. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

PMED 299 Experimental Offering in Paramedic

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

PMED 1000 Emergency Medical Technician: Refresher

Units: 1.5

Hours: 20 hours LEC; 21 hours LAB

Prerequisite: None.

Enrollment Limitation: Current or recent certification as an Emergency Medical Technician.

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 does not provide preparation for the National Registry of Emergency Medical Technicians (NREMT) entry or recertification exam. Completion of this course provides currently certified EMTs, wanting to recertify with the NREMT, with the 24 hours of required course content as well as the verification of required skills competency.

PMED 1006 Post Licensure/Certification Out-of-Hospital Skills: Medical

Units: 0.5

Hours: 6 hours LEC; 9 hours LAB

Prerequisite: None.

Enrollment Limitation: Current certification as an EMT-Basic (1) or licensure as an Paramedic

This course provides education modules related to medical emergencies for prehospital health care professionals. Each module will specifically address issues related to prehospital emergencies and local treatment protocol. This course provides continuing education credit necessary for maintenance of EMT-Basic certification or a Paramedic license. Pass/No Pass only.

Philosophy

Overview

Philosophy is the critical, rational examination of fundamental issues such as the scope and limits of human knowledge, the nature of the ultimate constituents of reality, and the source of our normative values and obligations. Most importantly, philosophy involves the study and utilization of logic and correct reasoning. Philosophy aims to clarify problems, and to refine the methods by which we solve these problems and investigate the world more broadly. Our courses aim to develop students' critical and logical reasoning, encourage open debate and independent thought, and provide the opportunity for students to apply the insights they gain to contemporary life.

Degrees Offered

A.A.-T. in Philosophy

Dean: Matt Wright

Department Chair: Dr. Dylan Mirek Popowicz

Phone: (916) 484-8283

Email: AskHB-PCS@arc.losrios.edu

Associate Degree for Transfer

A.A.-T. in Philosophy

The Associate in Arts in Philosophy for Transfer (AA-T) provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Philosophy at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, §66746):
• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

All ADTs also require that students must earn a "C" or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
A minimum of 3 units from the following:		3
PHIL 300	Introduction to Philosophy (3)	
PHIL 310	Introduction to Ethics (3)	
A minimum of 3 units from the following:		3
PHIL 320	Logic and Critical Reasoning (3)	
PHIL 324	Symbolic Logic (3)	
or MATH 320	Symbolic Logic (3)	
List A:		
A minimum of 3 units from the following:		3
Any course from the required core not already used or		
PHIL 315	Contemporary Moral Issues (3)	
PHIL 330	History of Classical Philosophy (3)	
PHIL 331	History of Modern Philosophy (3)	
PHIL 350	Philosophy of Religion (3)	
PHIL 360	Social/Political Philosophy (3)	
List B:		
A minimum of 6 units from the following:		6
Any courses from List A not already used or		
ADMJ 300	Introduction to Administration of Justice (3)	
ADMJ 320	Concepts of Criminal Law (3)	
ETHNS 300	Introduction to Ethnic Studies (3)	
HIST 300	History of Europe and the Mediterranean to 1500 (3)	
or HIST 480	History of Western Civilization - Honors (3)	
HIST 302	History of Europe Since 1500 (3)	
or HIST 481	History of Western Civilization - Honors (3)	
POLS C1000	American Government and Politics (3)	
or POLS C1000H	American Government and Politics - Honors (3)	
RLST 301	Introduction to World Religions (3)	
List C:		
A minimum of 3 units from the following:		3
Any course from List A or B not already used or		
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 340	World Literature I (3)	
ENGLT 341	World Literature II (3)	

Course Code	Course Title	Units
HIST 305	Women in Western Civilization (3)	
HIST 307	History of World Civilizations to 1500 (3)	
HIST 308	History of World Civilizations, 1500 to Present (3)	
HIST 364	Asian Civilization (3)	
HIST 365	Asian Civilization (3)	
HUM 300	Classical Humanities (3)	
HUM 301	Introduction to the Humanities (3)	
HUM 310	Modern Humanities (3)	
HUM 320	Asian Humanities (3)	
HUM 326	Middle Eastern Humanities (3)	
HUM 330	Humanities of the Americas (3)	
RLST 302	Introduction to Atheism (3)	
RLST 310	Introduction to the Hebrew Bible (3)	
RLST 311	Introduction to the New Testament (3)	
RLST 313	Introduction to Islam (3)	
Total Units:		**18**

The Associate in Arts in Philosophy 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify and express arguments found in philosophical and non-philosophical sources.
- analyze arguments from philosophical and non-philosophical sources into their constituent premises and conclusions.
- evaluate the cogency of arguments from philosophical and non-philosophical sources with respect to structure and content.
- critically discuss and evaluate important concepts and theories in ethics, metaphysics, and epistemology.
- develop and defend personal views concerning important philosophical issues.

Career Information

Because of continuing social and technological changes, today's graduates are more likely to change their jobs/careers than ever before. Job skills learned today for a specific career may be too specific to transfer to other jobs or simply become outdated. The technical skills and knowledge required by many fields are also changing, requiring constant updating to stay current. One advantage to studying philosophy is that it focuses on broader issues such as the nature of knowledge, values, the use of language, and the application of logic and critical reasoning: content that transfers across specific jobs/careers. The analytic skills developed in the study of philosophy are valuable in problem solving and effectively communicating ideas clearly and precisely. Finally, philosophy provides an excellent pre-law preparation, as philosophy majors generally score amongst the highest on the LSAT (Law School Admission Test).

Philosophy (PHIL) Courses

PHIL 300 Introduction to Philosophy

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L1B; Local GE L3; Cal-GETC Area 3B

C-ID: C-ID PHIL 100

This course examines some of the perennial questions that have been addressed in the history of philosophy. Some of these include: Do we have free will? Is there a God? What is knowledge? What is the fundamental nature of reality? What makes actions right or wrong? This examination includes a critical analysis of fundamental concepts involved in the issues addressed by these questions, as well as an evaluation of reasoning used to defend various answers to them.

PHIL 310 Introduction to Ethics

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID PHIL 120

This course is an introduction to ethics and moral philosophy. It includes a survey of various normative ethical theories including Aristotle's Virtue Ethics, Utilitarianism, and Kant's Deontological Ethics. It may also cover various meta-ethical issues such as ethical relativism vs. ethical objectivism, as well

as questions of knowledge and justification of moral claims. It may also include the application of normative ethical theories to contemporary moral issues.

PHIL 315 Contemporary Moral Issues

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This is an investigation into some of the moral issues our society presently faces. These issues may include abortion, euthanasia, genetic engineering, individual liberty and the collective good, sexuality/gender and society, war and terrorism, capital punishment, hunger/poverty and moral obligation, discrimination, and affirmative action.

PHIL 320 Logic and Critical Reasoning

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L1B

C-ID: C-ID PHIL 110

This course introduces basic principles of good reasoning. It focuses on recognizing arguments and identifying their premises and conclusions. It examines the distinction between inductive and deductive standards of evaluation and includes an overview of types of inductive reasoning, deductive argument patterns, use and misuse of language, and fallacious reasoning. Practical application to everyday life is emphasized.

PHIL 324 Symbolic Logic

Same As: MATH 320

Units: 3

Hours: 54 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU; UC

General Education: Local GE L1B; Local GE L2

C-ID: C-ID PHIL 210

This course is an introduction to symbolic logic. It includes a study of the logic of sentences (propositional logic) and the logic of classes and relations (predicate logic), together with an introduction to the nature of deductive systems. This course is not open to students who have completed MATH 320.

PHIL 330 History of Classical Philosophy

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID PHIL 130

This course is a survey of classical Greek philosophy. Through a careful examination of primary sources, it begins with an overview of Pre-Socratic thought and focuses primarily on the philosophical ideas of Socrates, Plato, and Aristotle. An overview of Hellenistic and Roman philosophy may be included.

PHIL 331 History of Modern Philosophy

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID PHIL 140

This course is an overview of important themes in the history of Western Philosophical thought from the Early Modern era to the turn of the nineteenth century. These themes may include the fundamental nature of reality, knowledge, values, society, God, and human nature.

PHIL 350 Philosophy of Religion

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course is an introduction to a philosophical examination of religion. This examination typically includes an analysis of basic religious concepts such as God, the afterlife, the soul, faith, karma, religious experience, good, and evil. The rationality of religious belief and the relation of religion to science may also be covered.

PHIL 360 Social/Political Philosophy

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Local GE L4; Cal-GETC Area 3B; Cal-GETC Area 4

This course is a historical and topical survey of significant themes of social/political philosophy from Plato to the present. Topics may include freedom, government, justice, law, rights, punishment, war, authority, and the state.

PHIL 495 Independent Studies in Philosophy

Units: 1 - 3

Prerequisite: None.

Transferable: CSU

PHIL 499 Experimental Offering in Philosophy

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Physics

Overview

If you wish to pursue a career in physics or a related field, ARC's Physics program offers you a strong foundation. Through this program, you have a number of course options to fulfill a GE requirement and/or needed physics coursework required for your major. You will be required to take some course work in physics if you major in, for example, biology, chemistry, many pre-health fields, engineering, mathematics, or computer science.

Career Options

The Careers Toolbox for Undergraduate Physics Students (https://www.spsnational.org/sites/all/careerstoolbox/) is a great place to start exploring career options for physics majors. Many other career and internship-related resources are available to you at the AAPT Career Center (https://careers.aapt.org/careers/).

Degrees Offered

A.S. in General Science

A.S. in Physical Science/Mathematics

Dean: Joel Keebler

Phone: (916) 484-8107

Email: askhb-STEM@arc.losrios.edu

Associate Degrees

A.S. in General Science

This program provides a broad study in the fields of biological and physical sciences in preparation for transfer to a four-year program and continuation of studies in upper division science courses.

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18[1]
Physical Science Courses		
ASTR C1001	Introduction to Astronomy (3)	
ASTR 310	The Solar System (3)	
ASTR 320	Stars, Galaxies, and Cosmology (3)	
ASTR 330	Introduction to Astrobiology (3)	
ASTR C1001L	Introduction to Astronomy Lab (1)	
ASTR 481	Honors Astronomy: Stars, Galaxies, and Cosmology (4)	
ASTR 495	Independent Studies in Astronomy (1 - 3)	
ASTR 499	Experimental Offering in Astronomy (0.5 - 4)	

Course Code	Course Title	Units
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 310	Chemical Calculations (4)	
CHEM 338	Chemistry In Your World (3)	
CHEM 400	General Chemistry I (5)	
CHEM 401	General Chemistry II (5)	
CHEM 420	Organic Chemistry I (5)	
CHEM 421	Organic Chemistry II (5)	
CHEM 423	Organic Chemistry - Short Survey (5)	
CHEM 495	Independent Studies in Chemistry (1 - 3)	
CHEM 499	Experimental Offering in Chemistry (0.5 - 4)	
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)	
GEOG 307	Environmental Hazards and Natural Disasters (3)	
GEOG 308	Introduction to Oceanography (3)	
GEOG 309	Introduction to Oceanography Lab (1)	
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 495	Independent Studies in Geography (1 - 3)	
GEOG 499	Experimental Offering in Geography (0.5 - 4)	

Course Code	Course Title	Units
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)	
GEOL 320	Global Climate Change (3)	
GEOL 325	Environmental Hazards and Natural Disasters (3)	
GEOL 330	Introduction to Oceanography (3)	
GEOL 331	Introduction to Oceanography Lab (1)	
GEOL 345	Geology of California (3)	
GEOL 392	Field Studies in Mountain Landscapes (1 - 4)	
GEOL 393	Field Studies in Coastal Landscapes (1 - 4)	
GEOL 394	Field Studies in Volcanic Landscapes (1 - 4)	
GEOL 495	Independent Studies in Geology (1 - 3)	
GEOL 499	Experimental Offering in Geology (0.5 - 4)	
PHYS 310	Conceptual Physics (3)	
PHYS 311	Basic Physics (3)	
PHYS 312	Conceptual Physics Laboratory (1)	
PHYS 350	General Physics (4)	
PHYS 360	General Physics (4)	
PHYS 410	Mechanics of Solids and Fluids (5)	
PHYS 421	Electricity and Magnetism (4)	
PHYS 431	Heat, Waves, Light and Modern Physics (4)	
PHYS 495	Independent Studies in Physics (1 - 3)	

Course Code	Course Title	Units
PHYS 499	Experimental Offering in Physics (0.5 - 4)	
Biological Science Courses		
ANTH 300	Biological Anthropology (3)	
ANTH 301	Biological Anthropology Laboratory (1)	
ANTH 303	Introduction to Forensic Anthropology (3)	
ANTH 370	Primatology (3)	
ANTH 480	Honors Biological Anthropology (3)	
ANTH 495	Independent Studies in Anthropology (1 - 3)	
ANTH 499	Experimental Offering in Anthropology (0.5 - 4)	
BIOL 300	The Foundations of Biology (3)	
BIOL 301	Evolution (3)	
BIOL C1000	Introduction to Biology with Lab (4)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
BIOL 305	Natural History (4)	
BIOL 310	General Biology (4)	
BIOL 322	Ethnobotany (3)	
BIOL 332	Introduction to Ornithology (4)	
BIOL 342	The New Plagues: New and Ancient Infectious Diseases Threatening World Health (3)	
BIOL 352	Conservation Biology (3)	
BIOL 370	Marine Biology (4)	
BIOL 375	Marine Ecology (3)	
BIOL 390	Natural History Field Study (0.5 - 4)	
BIOL 400	Principles of Biology (5)	
BIOL 410	Principles of Botany (5)	
BIOL 415	Introduction to Biology: Biodiversity, Evolution, and Ecology (5)	
BIOL 420	Principles of Zoology (5)	
BIOL 430	Anatomy and Physiology (5)	
BIOL 431	Anatomy and Physiology (5)	
BIOL 440	General Microbiology (4)	
BIOL 442	General Microbiology and Public Health (5)	
BIOL 482	Honors Marine Biology (4)	
BIOL 495	Independent Studies in Biology (1 - 3)	
BIOL 499	Experimental Offering in Biology (0.5 - 4)	
BIOT 301	Biotechnology and Human Health (3)	
BIOT 305	Introduction to Bioinformatics (1)	
BIOT 307	Biotechnology and Society (2)	
BIOT 311	Biotechnology Laboratory Methods - Molecular Techniques (2)	
BIOT 312	Biotechnology Laboratory Methods - Microbial and Cell Culture Techniques (2)	
BIOT 499	Experimental Offering in Biology (0.5 - 4)	
NATR 300	Introduction to Natural Resource Conservation and Policy (4)	
NATR 301	Introduction to Ornithology (4)	
NATR 302	Introduction to Wildlife Biology (4)	
NATR 303	Energy and Sustainability (3)	
NATR 304	The Forest Environment (3)	
NATR 305	Fisheries Ecology and Management (4)	
NATR 306	Introduction to Rangeland Ecology and Management (4)	
NATR 307	Principles of Sustainability (4)	
NATR 310	Study Design and Field Methods (4)	
NATR 320	Principles of Ecology (4)	
NATR 322	Environmental Restoration (3)	

Course Code	Course Title	Units
NATR 324	Field Studies: Birds and Plants of the High Sierra (2)	
NATR 330	Native Trees and Shrubs of California (4)	
NATR 332	Wildflowers of California (4)	
NATR 346	Water Resources and Conservation (3)	
NATR 495	Independent Studies in Natural Resources (1 - 3)	
NATR 499	Experimental Offering in Natural Resources (0.5 - 4)	
PSYC 310	Biological Psychology (3)	
PSYC 311	Biological Psychology Laboratory (1)	
Total Units:		**18**

[1]must be transfer-level and must include one laboratory course in a physical science and one laboratory course in a biological science

The General Science Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate new and accepted ideas about the natural universe using scientific methods.
- analyze a wide variety of natural phenomena using basic definitions and fundamental theories of biological or physical sciences.
- apply appropriate quantitative and qualitative methods to interpret and analyze pertinent data.
- outline the basic concepts and fundamental theories of a natural science.
- articulate orally and/or in writing the importance of continuous examination and modification of accepted ideas as a fundamental element in the progress of science.
- discuss ethical components of scientific decision making and apply personal and social values within the process of decision making in scientific endeavors.

A.S. in Physical Science/Mathematics

This degree provides a broad study in the fields of physical science and mathematics. It prepares students for transfer to a four-year program in science, technology, engineering, or mathematics (STEM).

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18
ASTR C1001	Introduction to Astronomy (3)	
ASTR 310	The Solar System (3)	
ASTR 320	Stars, Galaxies, and Cosmology (3)	
ASTR 330	Introduction to Astrobiology (3)	
ASTR C1001L	Introduction to Astronomy Lab (1)	
ASTR 481	Honors Astronomy: Stars, Galaxies, and Cosmology (4)	
ASTR 495	Independent Studies in Astronomy (1 - 3)	
ASTR 499	Experimental Offering in Astronomy (0.5 - 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 310	Chemical Calculations (4)	
CHEM 338	Chemistry In Your World (3)	
CHEM 400	General Chemistry I (5)	
CHEM 401	General Chemistry II (5)	
CHEM 420	Organic Chemistry I (5)	
CHEM 421	Organic Chemistry II (5)	
CHEM 423	Organic Chemistry - Short Survey (5)	
CHEM 495	Independent Studies in Chemistry (1 - 3)	
CHEM 499	Experimental Offering in Chemistry (0.5 - 4)	
ENGR 300	Introduction to Engineering (1)	
ENGR 310	Engineering Survey Measurements (4)	
ENGR 312	Engineering Graphics (3)	
ENGR 401	Introduction to Electrical Circuits and Devices (4)	
ENGR 412	Properties of Materials (4)	
ENGR 420	Statics (3)	
ENGR 495	Independent Studies in Engineering (1 - 3)	
ENGR 499	Experimental Offering in Engineering (0.5 - 4)	
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)	
GEOG 307	Environmental Hazards and Natural Disasters (3)	

Course Code	Course Title	Units
GEOG 308	Introduction to Oceanography (3)	
GEOG 309	Introduction to Oceanography Lab (1)	
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 495	Independent Studies in Geography (1 - 3)	
GEOG 499	Experimental Offering in Geography (0.5 - 4)	
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)	
GEOL 320	Global Climate Change (3)	
GEOL 325	Environmental Hazards and Natural Disasters (3)	
GEOL 330	Introduction to Oceanography (3)	
GEOL 331	Introduction to Oceanography Lab (1)	
GEOL 345	Geology of California (3)	
GEOL 392	Field Studies in Mountain Landscapes (1 - 4)	
GEOL 393	Field Studies in Coastal Landscapes (1 - 4)	
GEOL 394	Field Studies in Volcanic Landscapes (1 - 4)	
GEOL 495	Independent Studies in Geology (1 - 3)	
GEOL 499	Experimental Offering in Geology (0.5 - 4)	
MATH 300	Introduction to Mathematical Ideas (3)	
MATH 309	Calculus Concepts for non-STEM Majors (3)	
MATH 310	Mathematical Discovery (3)	
MATH 320	Symbolic Logic (3)	
or PHIL 324	Symbolic Logic (3)	
MATH 333	College Algebra for Liberal Arts (3)	
MATH 340	Calculus for Business and Economics (3)	
MATH 341	Calculus for Business and Economics (4)	
MATH 342	Modern Business Mathematics (3)	
MATH 355	Calculus for Biology and Medicine I (4)	
MATH 356	Calculus for Biology and Medicine II (4)	
MATH 372	College Algebra for Calculus (4)	
MATH 373	Trigonometry for Calculus (4)	
MATH 375	Pre-Calculus (6)	
MATH 383	Preparation for Calculus (4)	
MATH 400	Calculus I (5)	
MATH 401	Calculus II (5)	
MATH 402	Calculus III (5)	
MATH 410	Introduction to Linear Algebra (3)	
MATH 420	Differential Equations (4)	
MATH 480	Honors Seminar in Mathematics (2)	
MATH 495	Independent Studies in Mathematics (1 - 3)	
MATH 499	Experimental Offering in Mathematics (0.5 - 4)	
PHYS 310	Conceptual Physics (3)	
PHYS 311	Basic Physics (3)	
PHYS 312	Conceptual Physics Laboratory (1)	
PHYS 350	General Physics (4)	
PHYS 360	General Physics (4)	
PHYS 410	Mechanics of Solids and Fluids (5)	
PHYS 421	Electricity and Magnetism (4)	
PHYS 431	Heat, Waves, Light and Modern Physics (4)	
PHYS 495	Independent Studies in Physics (1 - 3)	
PHYS 499	Experimental Offering in Physics (0.5 - 4)	
STAT C1000	Introduction to Statistics (4)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
or ECON 310	Statistics for Business and Economics (3)	
or PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
STAT 309	Introduction to Probability and Statistics for STEM (4)	
STAT 495	Independent Studies in Statistics (1 - 3)	
STAT 499	Experimental Offering in Statistics (0.5 - 4)	
Total Units:		**18**

The Physical Science/Mathematics Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- recognize and correctly use the terminology of math, statistics, and/or science.
- analyze and interpret data, charts, and graphs using quantitative and qualitative methods.
- recognize and construct valid arguments using deductive and inductive reasoning.
- evaluate new and accepted ideas about the natural universe using testable methodology.

Physics (PHYS) Courses

PHYS 310 Conceptual Physics

Units: 3

Hours: 54 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU; UC (UC credit limitations: PHYS 310 and PHYS 311 combined: maximum credit, 1 course; No credit for PHYS 310 or PHYS 311 if taken after PHYS 350 or PHYS 410)

General Education: Local GE L5; Cal-GETC Area 5A

C-ID: Part of C-ID PHYS 140

This course covers selected topics in motion, gravity, heat, sound, electricity, magnetism, light, and atomic and nuclear physics. It is designed for non-science majors and students who have not taken a course in physics.

PHYS 311 Basic Physics

Units: 3

Hours: 54 hours LEC

Prerequisite: MATH 373 or 375 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitations: PHYS 310 and PHYS 311 combined: maximum credit, 1 course; No credit for PHYS 310 or PHYS 311 if taken after PHYS 350 or PHYS 410)

General Education: Local GE L5; Cal-GETC Area 5A

This survey course emphasizes problem solving in physics. Topics include motion in one and two dimensions, forces, energy, and momentum. It is designed for science majors who plan to continue with PHYS 350 or 410.

PHYS 312 Conceptual Physics Laboratory

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Corequisite: PHYS 310

Advisory: Successful completion of Algebra I/Integrated Math 1 or Beginning Algebra.

Transferable: CSU; UC

General Education: Cal-GETC Area 5C

C-ID: Part of C-ID PHYS 140

This laboratory course provides hands-on observation activities and interpretation of data in a variety of experimental situations. Topics include motion, sound, light, heat, electricity, and magnetism.

PHYS 350 General Physics

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: MATH 373 or 375 with a grade of "C" or better

Advisory: PHYS 311; and eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitations: PHYS 350, PHYS 360 and PHYS 410, PHYS 421, PHYS 431 combined: maximum credit, 1 series; No credit for PHYS 310 or PHYS 311 if taken after PHYS 350 or PHYS 410)

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

C-ID: C-ID PHYS 105; Part of C-ID PHYS 100S

This trigonometry-based physics course covers the mechanics of particles, rigid bodies, and fluids. It also covers mechanical waves, sound, heat, and thermodynamics. The PHYS 350/360 series is designed for biological science students, including those in pre-medical, pre-dental, agricultural, and forestry programs.

PHYS 360 General Physics

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: PHYS 350 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitation: PHYS 350, PHYS 360 and PHYS 410, PHYS 421, PHYS 431 combined: maximum credit, 1 seriesries)

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

C-ID: C-ID PHYS 110; Part of C-ID PHYS 100S

This trigonometry-based physics course covers electricity, magnetism, basic electric circuit theory, optics, wave behavior, and modern physics. The PHYS 350/360 series is designed for biological science students, including those in pre-medical, pre-dental, agricultural, and forestry programs.

PHYS 410 Mechanics of Solids and Fluids

Units: 5

Hours: 72 hours LEC; 54 hours LAB

Prerequisite: MATH 400 with a grade of "C" or better

Corequisite: MATH 401

Advisory: PHYS 311; and eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitations: PHYS 350, PHYS 360 and PHYS 410, PHYS 421, PHYS 431 combined: maximum credit, 1 series; No credit for PHYS 310 or PHYS 311 if taken after PHYS 350 or PHYS 410)

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

C-ID: C-ID PHYS 205; Part of C-ID PHYS 200S

This calculus-based physics course covers the mechanics of particles, rigid bodies, and fluids. The PHYS 410, 421, 431 sequence is required for majors in physics, chemistry, or engineering.

PHYS 421 Electricity and Magnetism

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: MATH 401 and PHYS 410 with grades of "C" or better

Transferable: CSU; UC (UC credit limitation: PHYS 350, PHYS 360 and PHYS 410, PHYS 421, PHYS 431 combined: maximum credit, 1 series)

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

C-ID: C-ID PHYS 210; Part of C-ID PHYS 200S

This calculus-based physics course is an in-depth treatment of electricity and magnetism. It involves problem solving with an emphasis on physics problems that require integral calculus.

PHYS 431 Heat, Waves, Light and Modern Physics

Units: 4

Hours: 54 hours LEC; 54 hours LAB

Prerequisite: MATH 401 and PHYS 410 with grades of "C" or better

Transferable: CSU; UC (UC credit limitation: PHYS 350, PHYS 360 and PHYS 410, PHYS 421, PHYS 431 combined: maximum credit, 1 series)

General Education: Local GE L5; Cal-GETC Area 5A; Cal-GETC Area 5C

C-ID: C-ID PHYS 215; Part of C-ID PHYS 200S

This calculus-based physics course explores the fundamental theories of thermodynamics, waves, optics, and modern physics. Topics include heat, temperature, kinetic theory, waves, sound, light reflection and refraction, optics, interference, diffraction, atomic theory, and nuclear physics.

PHYS 495 Independent Studies in Physics

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

PHYS 499 Experimental Offering in Physics

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Political Science

Overview

Government and politics profoundly impact us every day, from the laws that govern our behavior, to the quality of the water we drink, to the decision of whether to go to war. Political Science encourages critical thinking about how government works at the local, state, national, and international levels, and how we—as democratic participants—can make government work better. Political Science students may pursue a wide range of careers, at home or abroad, in fields such as law, advocacy, diplomacy, and public administration.

Degrees Offered

A.A.-T. in Political Science

A.A. in Political Science

Dean: Matt Wright
Department Chair: Tressa Tabares
Phone: (916) 484-8283
Email: tabaret@arc.losrios.edu

Associate Degrees for Transfer

A.A.-T. in Political Science

The Associate in Arts in Political Science for Transfer (AA-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Political Science at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (Pursuant to SB1440, Â§66746):
â€¢ 60 semester or 90 quarter CSU-transferable units
â€¢ the California General Education Transfer Curriculum (Cal-GETC) pattern
â€¢ a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district
â€¢ obtain a minimum grade point average (GPA) of 2.0

All ADTs also require that students must earn a â€œCâ€ or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
A minimum of 9 units from the following:		9
POLS C1000	American Government and Politics (3)	
or POLS C1000H	American Government and Politics - Honors (3)	
POLS 302	Comparative Politics (3)	
POLS 310	Introduction to International Relations (3)	
or POLS 480	Introduction to International Relations - Honors (3)	
POLS 320	Introduction to Political Theory (3)	
List A:		
A minimum of 6 units from the following:		6
Any course from the Required Core not already used or		
POLS 304	Introduction to Government: California (3)	
POLS 330	Constitutional Rights (3)	
POLS 342	Women and Politics from a Global Perspective (3)	
PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
or ECON 310	Statistics for Business and Economics (3)	
or STAT C1000	Introduction to Statistics (4)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
List B:		
A minimum of 3 units from the following:		3
Any course from the Required Core or List A not already used or		
ADMJ 300	Introduction to Administration of Justice (3)	
ADMJ 320	Concepts of Criminal Law (3)	
ANTH 310	Cultural Anthropology (3)	
or ANTH 481	Honors Cultural Anthropology (3)	
BUS 340	Business Law (3)	
GEOG 310	Human Geography: Exploring Earth's Cultural Landscapes (3)	
HIST 300	History of Europe and the Mediterranean to 1500 (3)	
or HIST 480	History of Western Civilization - Honors (3)	
HIST 302	History of Europe Since 1500 (3)	
or HIST 481	History of Western Civilization - Honors (3)	
PHIL 310	Introduction to Ethics (3)	
SOC 300	Introductory Sociology (3)	
or SOC 480	Introductory Sociology - Honors (3)	
Total Units:		**18**

The Associate in Arts in Political Science 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe the fundamentals of political science and governance.
- compare and contrast contemporary comparative systems and governance.
- evaluate the relationship between the governing process and public policy.

- examine how citizen and interest group participation influence political systems.
- analyze the role of culture and its influence on politics.
- assess how the design of political institutions and processes affect policy and stability.
- analyze politics and diplomacy in the international system.
- apply basic research methods to political science.
- analyze political and public policy making processes, and relate these to current issues and problems, for evaluating political events and their role in the political system.
- compare and contrast various theories of justice and the just state.
- evaluate various theories of the purpose of government and apply to a critical analysis of current political events.

Career Information

Career opportunities related to the study of political science include, but are not limited to, advocate/organizer, campaign worker, diplomat, educator/teacher, events planner, foreign affairs specialist, lawyer, legislative aide (state and federal), lobbyist, political consultant, and public relations specialist.

Associate Degrees

A.A. in Political Science

This degree provides a comprehensive introduction to the field of political science. It stresses the systematic study of politics, political institutions and governmental processes, state and local government, public policy, foreign policy, international relations, comparative politics, and political theory.

Degree Requirements

Course Code	Course Title	Units
POLS C1000	American Government and Politics (3)	3
or POLS C1000H	American Government and Politics - Honors (3)	
POLS 302	Comparative Politics	3
POLS 310	Introduction to International Relations (3)	3
or POLS 480	Introduction to International Relations - Honors (3)	
POLS 320	Introduction to Political Theory	3
A minimum of 6 units from the following:		6
HIST C1001	United States History to 1877 (3)	
or HIST C1001H	United States History to 1877 - Honors (3)	
HIST C1002	United States History since 1865 (3)	
or HIST C1002H	United States History since 1865 - Honors (3)	
GLST 301	Introduction to Global Studies (3)	
GLST 302	Global Issues (3)	
POLS 304	Introduction to Government: California (3)	
POLS 330	Constitutional Rights (3)	
POLS 342	Women and Politics from a Global Perspective (3)	
Total Units:		**18**

The Political Science Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe the fundamentals of political science and governance.
- compare and contrast contemporary comparative systems and governance.
- evaluate the relationship between the governing process and public policy.
- examine how citizen and interest group participation influence political systems.
- analyze the role of culture and its influence on politics.
- assess how the design of political institutions and processes affect policy and stability.
- analyze politics and diplomacy in the international system.
- apply basic research methods to political science.
- analyze political and public policy making processes, and relate these to current issues and problems, for evaluating political events and their role in the political system.
- compare and contrast various theories of justice and the just state.
- evaluate various theories of the purpose of government and apply to a critical analysis of current political events.

Career Information

This degree is designed to facilitate successful transfer to four-year institutions. Career opportunities in political science include, but are not limited to, advocate/organizer, campaign worker, diplomat, educator/teacher, events planner, foreign affairs specialist, lawyer, legislative aide (state and federal), lobbyist, political consultant, and public relations specialist.

Political Science (POLS) Courses

POLS C1000 American Government and Politics

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID POLS 110

This course was formerly known as POLS 301 Introduction to Government: United States.

This course is an introduction to government and politics in the United States and California.
Students examine the constitutions, structure, and operation of governing institutions, civil liberties
and civil rights, political behaviors, political issues, and public policy using political science theory
and methodology. This course was formerly known as POLS 301 and is not open to students who have completed POLS 301, 481, or C1000H.

POLS 302 Comparative Politics

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID POLS 130

This course is a comparative study and analysis of political systems, ideologies, institutions, policies, cultures, histories, and the development of government within various countries. It emphasizes the cultural and social dimensions of political behavior and attitudes in connection with governmental and political practices typical of particular geographical regions. It also covers an examination of selected developed and lesser developed nation-states from a global perspective.

POLS 304 Introduction to Government: California

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC 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

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID POLS 140

This course introduces the academic field of International Relations. It surveys global issues as they relate to theories of international relations, the nation-state system, the role of state and non-state actors, globalization, armed conflict and its causes, international law and conflict resolution, and international political economy. It emphasizes comparing global perspectives among developed and developing nations. This course is not open to students who have completed POLS 480.

POLS 320 Introduction to Political Theory

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID POLS 120

This course is a survey of the ideas that have shaped Western political development, covering important thinkers from the ancient, medieval, and modern periods. Topics include theories

of just and unjust societies, social contract theory, justifications for government authority, and the rights of citizens versus the responsibilities of citizenship.

POLS 330 Constitutional Rights

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course is a survey of American constitutional rights and civil liberties. Emphasis is placed on analysis of U.S. Supreme Court decisions and related materials dealing with issues arising under the Bill of Rights and the 14th Amendment to the U.S. Constitution.

POLS 342 Women and Politics from a Global Perspective

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course examines the impact of politics on women's lives and women's impact on politics from a global perspective. It explores past and current influences on the political and legal status of women as well as women’s participation in the political process throughout the world.

POLS 480 Introduction to International Relations - Honors

Units: 3

Hours: 54 hours LEC

Prerequisite: Placement into ENGL C1000H (formerly ENGWR 480) through the Los Rios placement process OR guided self-placement.

Advisory: ENGL C1000 or C1000H

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID POLS 140

This course examines global issues as they relate to theories of international relations, the nation-state system, the role of state and non-state actors, globalization, armed conflict and its causes, international law and conflict resolution, and international political economy. Emphasis is placed on the comparison of global perspectives among developed and developing nations. This seminar-style honors course approaches the topical material through class discussion which encourages problem-solving techniques focusing on current international relations issues. This course is not open to students who have completed POLS 310.

POLS C1000H American Government and Politics - Honors

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID POLS 110

This course was formerly known as POLS 481 Introduction to Government: United States - Honors.

This course is an introduction to government and politics in the United States and California.
Students examine the constitutions, structure, and operation of governing institutions, civil liberties
and civil rights, political behaviors, political issues, and public policy using political science theory
and methodology. This is an honors course. As an Honors course, classes will be conducted in a seminar format and emphasize participatory engagement and independent learning. The instructional materials and assessments will be more in-depth, complex, and challenging as compared to POLS C1000.

This course was formerly known as POLS 481 and is not open to students who have completed POLS 301, 481, or C1000.

POLS 494 Topics in Political Science

Units: 0.5 - 4

Hours: 9 - 54 hours LEC

Prerequisite: None.

Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESLW 320 with a grade of "C" or better; OR placement through assessment process.

Transferable: CSU

This course provides the opportunity for concentrated study of specialized topics in Political Science. Each offering focuses on a discrete aspect of the Political Science discipline. Refer to class schedule for class topic. Individual field trips may be required.

POLS 495 Independent Studies in Political Science

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

POLS 499 Experimental Offering in Political Science

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Psychology

Overview

We offer an associate of art (AA) degree that includes university-level transfer courses and other graduation requirements. Courses include general principles, biological and social psychology, research methods, introductory statistics, biological psychology lab, psychology of death and dying, abnormal behavior, human development, family life and intimate relationships, human sexuality, and psychology of aging.

Degrees Offered

A.A.-T. in Psychology

A.A. in Psychology

Dean: Matt Wright

Department Co-Chairs: Andréa Pantoja-Garvey, PhD
Mieke San Julian, MA, BCBA, LBA

Phone: (916) 484-8283

Email: PCS-PSYC-Chair@arc.losrios.edu

Associate Degrees for Transfer

A.A.-T. in Psychology

The Associate in Arts in Psychology for Transfer (AA-T) provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system and develop an understanding of the core principles and practices of the field in order to build a foundation for their future personal, academic, or vocational paths. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in psychology at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, Â§66746):
â€¢ 60 semester or 90 quarter CSU-transferable units
â€¢ the California General Education Transfer Curriculum (Cal-GETC) pattern
â€¢ a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district
â€¢ obtain a minimum grade point average (GPA) of 2.0

All ADTs also require that students must earn a â€œCâ€ or better in all courses required for the major or area of emphasis. A â€œP" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
PSYC C1000	Introduction to Psychology (3)	3
or PSYC C1000H	Introduction to Psychology - Honors (3)	
PSYC 310	Biological Psychology	3
PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	3 - 4

Course Code	Course Title	Units
or ECON 310	Statistics for Business and Economics (3)	
or STAT C1000	Introduction to Statistics (4)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
PSYC 335	Research Methods in Psychology	3
List A:		
A minimum of 3 units from the following:		3
PSYC 305	Psychology Applied to Modern Life (3)	
PSYC 320	Social Psychology (3)	
PSYC 340	Abnormal Behavior (3)	
or PSYC 481	Honors Abnormal Behavior (3)	
PSYC 342	Introduction to Applied Behavior Analysis (3)	
PSYC 354	The Psychology of Family Life and Intimate Relationships in a Diverse Society (3)	
PSYC 356	Human Sexuality (3)	
PSYC 359	Stress Management and Health (3)	
PSYC 361	Psychology of Women in a Multicultural Society (3)	
PSYC 370	Human Development: A Life Span (3)	
PSYC 373	Child Psychology (3)	
PSYC 390	Psychology of Death and Dying (3)	
List B:		
A minimum of 3 units from the following:		3
Any course from List A not already used or		
PSYC 365	Issues of Diverse Populations (3)	
or SWCD 330	Issues of Diverse Populations (3)	
PSYC 372	Child Development (3)	
or ECE 312	Child Development (3)	
PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
or GERON 305	Introduction to Geropsychology and the Aging Brain (3)	
PSYC 400	Introduction to Chemical Dependency (3)	
or SWCD 340	Introduction to Chemical Dependency (3)	
PSYC 401	Physiology and Pharmacology: Alcohol & Other Drugs (3)	
or SWCD 341	Physiology and Pharmacology: Alcohol & Other Drugs (3)	
PSYC 402	Alcoholism: Intervention, Treatment & Recovery (3)	
or SWCD 342	Alcoholism: Intervention, Treatment & Recovery (3)	

Course Code	Course Title	Units
Total Units:		**18 - 19**

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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- differentiate between scientifically derived knowledge versus pseudoscience within the field of psychology.
- compare and contrast the major theoretical perspectives in psychology.
- define and apply basic psychological terminology regarding behavior, cognition, and emotion, and be able to express it clearly when writing or speaking about psychology.
- evaluate psychological data, use the scientific method, draw reasonable conclusions, recognize the ethical implications of these conclusions, and apply these to personal, community, and scientific problems.
- employ and integrate psychological principles that lay the foundation for life-long personal growth and development of interpersonal and social skills.
- demonstrate appropriate interpersonal and social skills in interactions with a diverse population using principles of equity, justice, and inclusion.

Career Information

This AA-T degree facilitates studentsâ€™ successful transfer to four-year programs. From there, students are prepared for a variety of careers such as case management, sales and marketing, health care facility administration, teaching, and law enforcement. The degree also prepares students to continue their academic studies in post-graduate programs. Psychologists with graduate degrees and professional certificates also have a broad range of employment opportunities including, but not limited to, licensed psychologists, industrial/organizational psychologists, consumer psychologists, and research psychologists.

Associate Degrees

A.A. in Psychology

Psychology focuses on the study of behavior of humans and other animals. It involves both pure and practical application of science to matters of everyday life.

Degree Requirements

Course Code	Course Title	Units
PSYC C1000	Introduction to Psychology (3)	3
or PSYC C1000H	Introduction to Psychology - Honors (3)	
PSYC 310	Biological Psychology	3
PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	3 - 4
or ECON 310	Statistics for Business and Economics (3)	
or STAT C1000	Introduction to Statistics (4)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
PSYC 335	Research Methods in Psychology	3
A minimum of 3 units from the following:		3
PSYC 320	Social Psychology (3)	
PSYC 370	Human Development: A Life Span (3)	
PSYC 373	Child Psychology (3)	
A minimum of 3 units from the following:		3
Any course not used from the prior list or		
PSYC 305	Psychology Applied to Modern Life (3)	
PSYC 340	Abnormal Behavior (3)	
or PSYC 481	Honors Abnormal Behavior (3)	
PSYC 342	Introduction to Applied Behavior Analysis (3)	
PSYC 354	The Psychology of Family Life and Intimate Relationships in a Diverse Society (3)	
PSYC 356	Human Sexuality (3)	
PSYC 359	Stress Management and Health (3)	
PSYC 361	Psychology of Women in a Multicultural Society (3)	
PSYC 365	Issues of Diverse Populations (3)	
or SWCD 330	Issues of Diverse Populations (3)	
PSYC 372	Child Development (3)	
or ECE 312	Child Development (3)	
PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
or GERON 305	Introduction to Geropsychology and the Aging Brain (3)	
PSYC 390	Psychology of Death and Dying (3)	
PSYC 400	Introduction to Chemical Dependency (3)	
or SWCD 340	Introduction to Chemical Dependency (3)	
PSYC 401	Physiology and Pharmacology: Alcohol & Other Drugs (3)	
or SWCD 341	Physiology and Pharmacology: Alcohol & Other Drugs (3)	
PSYC 402	Alcoholism: Intervention, Treatment & Recovery (3)	
or SWCD 342	Alcoholism: Intervention, Treatment & Recovery (3)	
Total Units:		**18 - 19**

The Psychology Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- differentiate between scientifically derived knowledge versus myth and conjecture within the field of psychology.
- compare and contrast the major theoretical orientations in psychology.
- define basic psychological terminology regarding behavior, cognition, and emotion, and be able to express it clearly when writing or speaking about psychology.
- evaluate psychological data using the scientific method, draw reasonable conclusions, recognize the ethical implications of these conclusions, and apply these to personal, community, and scientific problems.
- employ psychological principles that lay the foundation for life-long personal growth and development of interpersonal and social skills.
- demonstrate appropriate interpersonal and social skills in interactions with a diverse population using principles of equity, justice, and inclusion.

Career Information

The Psychology degree is designed to facilitate studentsâ€™ successful transfer to four-year programs that prepare them for advanced study in a variety of graduate programs. Psychologists with graduate degrees and professional certificates have a broad range of employment opportunities including, but not limited to, clinical practice, research, and teaching. Clinical psychologists work in a variety of settings and with a wide range of clients. Research psychologists work in a range of fields associated with the study of human behavior, including biomedical, sports psychology, and cognitive neuroscience.

Psychology (PSYC) Courses

PSYC C1000 Introduction to Psychology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitation: PSYC C1000/ 300, PSYC 1000H/480, and PSYC 305 combined: maximum credit, 1 course)

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID PSY 110

This course was formerly known as PSYC 300 General Principles.

This course is an introduction to psychology, which is the study of the mind and behavior. Students
focus on theories and concepts of biological, cognitive, developmental, environmental, social, and
cultural influences; their applications; and their research foundations. This course was formerly known as PSYC 300 and is not open to students who have successfully completed PSYC 300, 480, or C1000H.

PSYC 305 Psychology Applied to Modern Life

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitation: PSYC C1000/ 300, PSYC 1000H/480, and PSYC 305 combined: maximum credit, 1 course)

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID PSY 115

This course explores human behavior, emphasizing the practical aspects of psychology in everyday life utilizing both psychological theory and research. Topics include personality, stress and coping, self-understanding, communication, interpersonal relationships, gender, sexuality, psychological disorders and their treatment, personality, personal values, and positive psychology.

PSYC 310 Biological Psychology

Units: 3

Hours: 54 hours LEC

Prerequisite: PSYC C1000 or C1000H with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L5; Cal-GETC Area 5B

C-ID: C-ID PSY 150

This course examines the physiological determinants of behavior and cognition. The role of genetics, neural development, neural communication and pathways, brain structures, neurotransmitters, drugs, endocrine system, and sensory systems in typical and atypical behavior and cognition are addressed. Current theories related to the role of neural and biological processes in the etiology and treatment of psychological disorders, motor disorders, and other central nervous pathologies are presented. Ethical standards for human and animal research are discussed.

PSYC 311 Biological Psychology Laboratory

Units: 1

Hours: 54 hours LAB

Prerequisite: None.

Corequisite: PSYC 310

Transferable: CSU; UC

General Education: Cal-GETC Area 5C

This course involves the applied study of the nervous system focusing on its anatomy, physiology, biochemistry, and impact on behavioral and mental processes. It provides a foundation in the principles of the scientific method and practical experience in its application to the study of biological psychology. Specific topics include anatomy, physiology, and organization of the nervous system, with special emphasis on the brain; anatomy and physiology of the neuron; physiology of nerves and nerve conduction; the biochemistry of the synapse; anatomy and physiology of sensory systems; and

psychophysical examination of sensation and perception. It utilizes brain dissection procedures, interactive computer simulations, and lab experiments with data collection and analysis.

PSYC 320 Social Psychology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: PSYC C1000 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID PSY 170

This course analyzes human behavior in relation to the social environment and provides students with an introduction to the scientific study of how people think about, influence, and relate to one another. Students become familiar with the major domains of social psychology and the relevance of social psychology to daily life, including the power of the situation, other individuals, and the social group. Topics include aggression, prejudice, attraction, altruism, conflict resolution, attitude change, conformity, gender roles, cultural norms, person perception, and social cognition.

PSYC 330 Introductory Statistics for the Behavioral Sciences

Units: 3

Hours: 54 hours LEC

Prerequisite: Through the Los Rios Placement Process or successful completion of Algebra II/Integrated Math 3 or Intermediate Algebra.

Transferable: CSU; UC (UC credit limitation: ECON 310, PSYC 330, STAT C1000/300, STAT C1000H/480, and STAT 305 combined: maximum credit, 1 course)

General Education: Local GE L2; Cal-GETC Area 2

C-ID: C-ID MATH 110

This course focuses upon the concepts and applications of descriptive and inferential statistics in psychology and other behavioral sciences. Topics include descriptive statistics, probability and sampling distributions, parametric and nonparametric statistical methods, hypothesis testing, statistical inference and power, correlation and regression, chi-square, t-tests, and analysis of variance procedures. Application of both hand computation and statistical software to data in a social science context is emphasized to include the interpretation of the relevance of the statistical findings.

PSYC 335 Research Methods in Psychology

Units: 3

Hours: 54 hours LEC

Prerequisite: PSYC C1000 AND PSYC 330 or STAT C1000 with a grade of 'C' or better.

Advisory: ENGL C1000, ENGL C1000H, or ESLW 340 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L1B; Local GE L4

C-ID: C-ID PSY 200

This course introduces students to the various psychological research methods and to the critical evaluation of research. It emphasizes research design, experimental procedures, descriptive methods, instrumentation, and the collection, analysis, interpretation, and reporting of research data. Research design and methodology are investigated through a review of research in a variety of sub-disciplines in psychology. Students gain knowledge in scientific writing, including proficiency in APA style.

PSYC 340 Abnormal Behavior

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

C-ID: C-ID PSY 120

This course explores the broad questions of normality and abnormality. Topics include the investigation of specific mental, emotional, and behavioral difficulties and current approaches to psychological intervention including present community mental health practices. It considers the contribution of social, biological, and psychological factors to the development and persistence of behavior disorders. This course is not open to students who have taken PSYC 481.

PSYC 342 Introduction to Applied Behavior Analysis

Units: 3

Hours: 54 hours LEC

Prerequisite: PSYC C1000 or 305 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L7B

This course focuses on basic behavioral principles that describe relations between operant behavior and the social and physical environment. It examines behavior as a part of the natural world and in everyday situations. This course focuses on principles of operant conditioning, such as reinforcement, extinction, differential reinforcement, and punishment, as they are related to naturally occurring events. Additional topics include experimental and intervention procedures of applied behavioral analysis. The course also covers practical applications including self-management, institutional settings, schools, child behavior management, as well as treatment of neurodevelopmental disorders including autism spectrum disorders.

PSYC 354 The Psychology of Family Life and Intimate Relationships in a Diverse Society

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340.

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

C-ID: C-ID SOCI 130

This course is a study of family life and intimate relationships from historical, sociological, and psychological viewpoints. Topics include elements for building and maintaining intimate relationships, the structure and functions of marriage, family, sexuality, parenting, gender roles, gender diversity, partner selection, conflict, crisis, divorce, and starting over.

PSYC 356 Human Sexuality

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

C-ID: C-ID PSY 130

This course offers a balanced scientific understanding of the biopsychosocial perspective on human sexual behavior from birth through adulthood. It provides factual, up-to-date, nonjudgmental information designed to dispel myths, and to facilitate problem identification and possible solutions. Sexuality is explored from historical, cultural, psychological, physiological, sociological, and legal viewpoints.

PSYC 359 Stress Management and Health

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L7B

This course examines the connection between stress, stress response, coping, and health. It covers various types of stressors, stress responses, and coping strategies, and the scientific research in these areas. Topics include the impact of stress on physical, cognitive, behavioral, and emotional health. This course focuses on developing healthy ways to cope with stress, including cognitive-behavioral techniques, mindfulness, and relaxation techniques.

PSYC 361 Psychology of Women in a Multicultural Society

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course is a study of the psychological effects of society upon women. It emphasizes the exploration of gender roles, sex roles, and stereotypes, as well as the sociocultural, intrapersonal, and interpersonal factors in the development of women.

PSYC 365 Issues of Diverse Populations

Same As: SWCD 330

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

This course is a study of the values, problems, issues, concerns and counseling needs of diverse populations by race, ethnicity, class, gender, sexual orientation, gender identity, physical/cognitive/emotional/developmental ability, and age. It also explores the cognitive and emotional aspects of prejudice as it relates to institutional and individual discrimination. This course is not open to students who have completed SWCD 330.

PSYC 370 Human Development: A Life Span

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

C-ID: C-ID PSY 180

This course examines human development across the lifespan, from conception through death, by focusing on the main domains in developmental psychology (physical, cognitive, and socio-emotional) as well as the interaction among these domains. It emphasizes development as an on-going process, with an effort to encourage the practical application of the knowledge acquired. This course is designed to provide a foundation for careers in educational, social, psychological, and medical fields as well as a better understanding of one's own developmental process.

PSYC 372 Child Development

Same As: ECE 312

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitation: PSYC 372, 373, and ECE 312 combined: maximum credit, 1 course)

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

C-ID: C-ID CDEV 100

This course examines the progression of development in the physical, cognitive, linguistic, social, and emotional domains and identifies developmental milestones for children from conception through adolescence with attention to both typical as well as atypical development in each domain. The influences of culture, family, and the interaction of biological processes and environmental factors are studied. The course covers research methods and data collection approaches. Students will observe children, evaluate individual differences, and analyze characteristics of development at various stages according to developmental theories and research. The material in this course is designed as a foundation for early child care and education, teaching, and parenting. This course is not open to students who have completed ECE 312.

PSYC 373 Child Psychology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340.

Transferable: CSU; UC (UC credit limitation: PSYC 372, 373, and CDEV C1000/ECE 312 combined: maximum credit, 1 course)

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

This course introduces students to the science of child psychology through the analysis of developmental theories and research from globally inclusive perspectives. The course examines key developmental events across the main domains in developmental psychology (physical, cognitive, socioemotional), from conception through late adolescence. Questions about development are investigated, with an emphasis on the role of the scientific method. Typical and atypical psychological development is explored via research studies in addition to contextual influences of culture, society, family, and physical environments on children's behavior and mental processes from globally inclusive perspectives. Additionally, this course provides a scientific foundation for future studies in social sciences, including psychology.

PSYC 375 Introduction to Geropsychology and the Aging Brain

Same As: GERON 305

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

This course introduces foundation theories and constructs of gerontology and psychology to examine the aging-related biopsychosocial changes that influence how mature and older adults feel about themselves, how they process information, and how they encode memories about what they experience and learn. Special emphasis is placed on psychological differences between aging cohorts based on psychosocial factors present during the decade of birth and earlier stages of life, gender/sex and race/ethnicity, the social determinants of health, bias development, prejudice and discrimination, and racism, ableism, sexism, and ageism. Topics include psychological theories, models, and constructs that have practical application during interactions with older people; stages of life and phases of aging; aging-related changes (senescence) and the psychological impact of those changes; how illnesses, diseases, and disabilities complicate aging; the anatomy of the central and peripheral nervous systems; and models of sensorineural processing and learning/memory. Case studies are utilized to explore older adult health and mental health, personality and communication behaviors, environmental factors, and the impact of the social determinants of health on overall well-being, quality of life, and aging outcomes. This course is not open to students who have completed GERON 305.

PSYC 390 Psychology of Death and Dying

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

This course investigates beliefs, attitudes, anxieties, and behaviors associated with dying and death. Information about suicide, life-threatening illnesses, bereavement, and euthanasia are presented.

PSYC 400 Introduction to Chemical Dependency

Same As: SWCD 340

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L7B

This course examines the biopsychosociocultural effects of chemical dependency on the individual and the family. It includes an analysis of alcohol and drug use; misuse and abuse across age, gender, sexuality, race, ethnicity, and economic conditions contributing to substance abuse; and a description of community efforts at prevention and treatment. This course is not open to students who have completed SWCD 340.

PSYC 401 Physiology and Pharmacology: Alcohol & Other Drugs

Same As: SWCD 341

Units: 3

Hours: 54 hours LEC

Prerequisite: PSYC 400 and SWCD 340 with grades of "C" or better

Transferable: CSU; UC

This course is a study of the absorption, metabolism, and the mechanism of action of alcohol and other psychoactive drugs including opiates, stimulants, depressants, cannabinoids, and psychedelics. It includes the pharmacological mechanisms as well as the social and psychological implications of tolerance, habituation, and substance abuse of the user and abuser. This course is not open to students who have completed SWCD 341.

PSYC 402 Alcoholism: Intervention, Treatment & Recovery

Same As: SWCD 342

Units: 3

Hours: 54 hours LEC

Prerequisite: PSYC 401 and SWCD 341 with grades of "C" or better

Transferable: CSU

This course is a study and evaluation of techniques used in the treatment of alcohol dependency. This course will cover both physical and psychological effects of alcohol use, abuse and the impact on family and society. Topics include prevention, intervention, individual and group counseling, detoxification, twelve-step program, therapeutic communities, aftercare programs, harm reduction and addressing high risk drinking. This course is not open to students who have completed SWCD 342.

PSYC 415 Studying in London: Psychological Elements of British Life and Culture

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

General Education: Local GE L4

This course, offered in a London study abroad program, surveys elements in British history and culture that have influenced the science of psychology. It emphasizes the influences of Sigmund Freud, Charles Darwin, Sir Francis Galton, and the events of World War II to current psychological theories. Additionally, the course examines the social norms in English culture in comparison to other cultures. Field trips are required.

PSYC C1000H Introduction to Psychology - Honors

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC (UC credit limitation: PSYC C1000/ 300, PSYC 1000H/480, and PSYC 305 combined: maximum credit, 1 course)

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID PSY 110

This course was formerly known as PSYC 480 Honors General Principles.

This course is an introduction to psychology, which is the study of the mind and behavior. Students
focus on theories and concepts of biological, cognitive, developmental, environmental, social, and
cultural influences; their applications; and their research foundations. This is an honors course. This honors course is for psychology majors, behavioral science majors, and other students who desire a challenging, issues-oriented introduction to the general principles of psychology. Topics include the scientific method, statistics, biological determinants, and general processes of behavior, such as development, learning, language, intelligence, perception, motivation, emotion, personality, and mental health. In comparison to PSYC C1000, this honors course uses an intensive instructional methodology designed to challenge students and cultivate advanced critical thinking skills. Instruction emphasizes critical thinking in a seminar style, where the focus is on analysis and evaluation of psychological theories and research studies as they relate to practical, everyday issues. Honors students will also develop proficiency in library and internet-based research, make oral and written presentations, and participate in student-led group discussions. An APA style research paper is also required. This course was formerly known as PSYC 480 and is not open to students who successfully completed PSYC C1000, 300, or 480.

PSYC 481 Honors Abnormal Behavior

Units: 3

Hours: 54 hours LEC

Prerequisite: Placement into ENGWR 480 through the assessment process.

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

C-ID: C-ID PSY 120

This honors course is for psychology majors, behavioral science majors, and others who desire a challenging, critical thinking, and issues-oriented exploration of normality and abnormality. It examines the origins, symptoms, and treatment of psychological disorders through first-person accounts, the role of multicultural factors, and various theoretical stances. It focuses on thorough analysis and evaluation of biopsychosocial theories and research studies as they relate to the development and persistence of behavior disorders and treatment approaches. In comparison to PSYC 340: Abnormal behavior, this honors course uses an intensive instructional methodology designed to challenge motivated students and cultivate advanced critical thinking skills. Instruction emphasizes critical thinking in a seminar style, where the focus is on analysis and evaluation of psychological theories, case studies, journal research articles, and the Diagnostic and Statistical Manual of Mental Disorders (5th edition) as they relate to the understanding of abnormal psychology. Honor students will also develop proficiency in library and internet-based research, make oral and written presentations, and participate in student-led group discussions. This course is not open to students who have taken PSYC 340.

PSYC 495 Independent Studies in Psychology

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the

college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

PSYC 499 Experimental Offering in Psychology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Real Estate

Overview

ARC's Real Estate program offers students a variety of classes. Students can pursue an Associate's degree, certificate, or department certificate. The Associate's degree can be a pathway to a career as a real estate salesperson or broker, or as a small business owner.

Degrees and Certificates Offered

A.A. in Real Estate

Real Estate Certificate

Real Estate Sales Certificate

Division Dean: Kirsten Corbin

Department Chair: Heidi Bennett

Phone: (916) 484-8361

Email: ARCBUSClerk@arc.losrios.edu

Associate Degree

A.A. in Real Estate

This degree focuses on the practical application of concepts utilized in real estate markets and career fields. Course work includes real estate principles, legal aspects, practice, finance, economics, and appraisal.

Degree Requirements

Course Code	Course Title	Units
ACCT 101	Fundamentals of College Accounting (3)	3 - 4
or ACCT 301	Financial Accounting (4)	
BUS 300	Introduction to Business	3
BUS 310	Business Communications (3)	3
or MGMT 360	Management Communication (3)	
BUS 340	Business Law	3
MKT 300	Principles of Marketing	3
RE 300	California Real Estate Principles	3
RE 310	Real Estate Practice	3
RE 320	Real Estate Finance	3
RE 330	Legal Aspects of Real Estate	3
RE 342	Real Estate Appraisal	3
A minimum of 1 unit from the following:		1
BUS 210	The Business Plan (1)	
BUS 212	Marketing for Small Businesses (1)	
CISC 300	Computer Familiarization (1)	
CISC 305	Introduction to the Internet (1)	
A minimum of 3 units from the following:		3
BUS 320	Concepts in Personal Finance (3)	
MKT 310	Selling Professionally (3)	
MKT 314	Advertising (3)	
RE 360	Real Estate Economics (3)	
Total Units:		**34 - 35**

The Real Estate Associate in Arts (A.A.) degree may be obtained by completion of the required program, plus the local ARC General Education Requirement, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- Identify and explain the major functional areas of real estate, including legal aspects, finance, economics, real estate practice, and appraisal.
- Demonstrate effective leadership skills in a real estate environment.
- Analyze practical real estate problems.
- Integrate real estate principles related to finance, law, products, services and information.
- Assess current real estate market conditions.
- Recommend appropriate sales strategies, based on market conditions.
- Qualify for the California Real Estate Brokers and Salesperson license examinations.

- Utilize research and critical thinking to evaluate and recommend alternative solutions to real estate problems.

Career Information

Real estate salesperson; real estate broker; real estate appraiser; small business owner

Certificate of Achievement

Real Estate Certificate

This certificate introduces the basic concepts of the real estate career field. Topics include the principles of real estate, law, economics, finance, practice and appraisal.

Certificate Requirements

Course Code	Course Title	Units
RE 300	California Real Estate Principles	3
RE 310	Real Estate Practice	3
RE 320	Real Estate Finance	3
RE 330	Legal Aspects of Real Estate	3
RE 342	Real Estate Appraisal	3
A minimum of 3 units from the following:		3
ACCT 101	Fundamentals of College Accounting (3)	
ACCT 301	Financial Accounting (4)	
BUS 110	Business Economics (3)	
ECON C2002	Principles of Macroeconomics (3)	
ECON C2001	Principles of Microeconomics (3)	
RE 360	Real Estate Economics (3)	
A minimum of 6 units from the following:		6
ACCT 101	Fundamentals of College Accounting (3)	
or ACCT 301	Financial Accounting (4)	
or ACCT 311	Managerial Accounting (4)	
BUS 105	Business Mathematics (3)	
BUS 300	Introduction to Business (3)	
BUS 310	Business Communications (3)	
or MGMT 360	Management Communication (3)	
BUS 340	Business Law (3)	
MKT 300	Principles of Marketing (3)	
MKT 310	Selling Professionally (3)	
MKT 314	Advertising (3)	
Total Units:		**24**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- Apply a basic knowledge of the fundamental concepts of real estate.
- Define the technical terminology involved in the real estate field.
- Interpret and apply a knowledge of real estate transactions.
- Qualify for the California Real Estate Salesperson's License Examination.
- Analyze real estate situations and property, interpret the data, and properly complete deposit receipts.

Certificate

Real Estate Sales Certificate

This certificate introduces the basic concepts of the real estate career field, with a specific focus on sales. Topics include the principles of real estate, law, economics, finance, practice, and appraisal.

Certificate Requirements

Course Code	Course Title	Units
RE 300	California Real Estate Principles	3
RE 310	Real Estate Practice	3
A minimum of 3 units from the following:		3
ACCT 301	Financial Accounting (4)	
BUS 340	Business Law (3)	
RE 320	Real Estate Finance (3)	
RE 330	Legal Aspects of Real Estate (3)	
RE 342	Real Estate Appraisal (3)	
RE 350	Real Property Management (3)	
RE 360	Real Estate Economics (3)	
Total Units:		**9**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply a basic knowledge of the fundamental concepts of real estate
- define the technical terminology involved in the real estate field
- interpret and apply a knowledge of real estate transactions
- qualify for the California Real Estate Salesperson's License Examination

Real Estate (RE) Courses

RE 295 Independent Studies in Real Estate

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

RE 299 Experimental Offering in Real Estate

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

RE 300 California Real Estate Principles

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers the basic laws and principles of California real estate. It provides the 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 310 Real Estate Practice

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers the daily operations in the role of real estate agent or broker. It includes listing, prospecting, advertising, financing, sales techniques, escrow, and ethics. This course also covers basic laws and practices of California real estate and provides background and terminology necessary for advanced study in more specialized courses. This course applies towards the educational requirements for the California State Broker's examination.

RE 320 Real Estate Finance

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: RE 300; RE 300; ENGWR 102 or 103 and ENGRD 116 or ESLR 320 and ESLW 320; BUS 105

Transferable: CSU

This course covers real estate financing, including lending policies and problems in financing transactions in residential apartments and commercial and special purpose properties. Methods of financing properties are emphasized. It meets one of the educational requirements to qualify for the California Department of Real Estate broker's examination.

RE 330 Legal Aspects of Real Estate

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: RE 300; RE 300; ENGWR 102 or 103 and ENGRD 116 or ESLR 320 and ESLW 320; BUS 105

Transferable: CSU

This course covers California real estate laws, including methods of ownership, estates, transfers, financing instruments, foreclosures, leasing, contracts, and agency. It meets one of the educational requirements to qualify for the California Department of Real Estate broker's examination.

RE 342 Real Estate Appraisal

Units: 3

Hours: 62 hours LEC

Prerequisite: None.

Advisory: BUS 105; Successful completion of Arithmetic. Upon completion of BUS 105, student will be able to add, subtract, multiply, and divide whole numbers, fractions, and decimals.

Transferable: CSU

This course covers entry-level education in the real estate appraisal field, concentrating on the appraisal of single-family residences (real property). It covers Basic Appraisal Principles (30 Hours) and Basic Appraisal Procedures (30 Hours) pursuant to the Appraiser Qualifications Board's (AQB) Real Property Appraiser Qualification Criteria. This course is designed to meet the California Bureau of Real Estate Appraisers (BREA)

requirements for Basic Education (60 Hours). It also meets the California Department of Real Estate (DRE) college-level educational requirements (3 semester units) for the salesperson and broker examinations.

RE 350 Real Property Management

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course covers operation and management of real property marketing procedures, leases, maintenance, insurance, accounting, records, public and human relations, employer responsibilities, and selection of personnel and agreements. This course applies towards the educational requirements for the California State Broker's Examination.

RE 360 Real Estate Economics

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: RE 300

Transferable: CSU

This course covers the nature and classification of real estate and real estate investments. Topics include economic development of real property, real estate cycles and market trends, and governmental and private sector influence on the economics of real estate. It is recommended that this course be taken last in the real estate series. This course meets one of the educational requirements to qualify for the California Bureau of Real Estate broker's examination.

RE 495 Independent Studies in Real Estate

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

RE 499 Experimental Offering in Real Estate

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Recreation

Overview

ARC's recreation program offers an associate degree that provides training for an entry-level career in the field of recreation and leisure services. Our program explores the many career fields in recreation, including public service, private recreation, outdoor recreation, and leadership positions.

Degrees Offered

A.A. in Recreation

Interim Dean: Heather Moody

Department Chair: Tim Finnecy

Phone: (916) 484-8201

Email: askhb-healthed@arc.losrios.edu

Associate Degree

A.A. in Recreation

This degree provides training for an entry-level career in the field of recreation and leisure services. It explores the many career fields in recreation, including public service, private recreation, outdoor recreation, and leadership positions.

Degree Requirements

Course Code	Course Title	Units
COMM C1000	Introduction to Public Speaking (3)	3
or COMM 331	Group Discussion (3)	
ECE 312	Child Development (3)	3
or PSYC 372	Child Development (3)	
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	3

Course Code	Course Title	Units
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
RECR 300	Introduction to Recreation and Leisure Services	3
RECR 310	Outdoor Recreation	3
RECR 320	Recreation Activity Leadership	3
A minimum of 2 units from the following:		2
RECR 498	Work Experience in Recreation (0.5 - 4)	
Total Units:		**20**

The Recreation Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze community needs for parks and recreation programs.
- create recreation programs and supervise staff.
- demonstrate leadership skills in recreation programs.
- administer a wide variety of parks and community services.

Career Information

Careers in recreation include jobs in park facilities and services in federal, state, municipal, and voluntary nonprofit agencies. Commercial and private recreation also provide opportunities for employment. Travel and tourism, club management, resort recreation, food and beverage services, lodging, professional sports, entertainment, and cultural services are very much an integral part of the recreation and leisure services market.

Recreation (RECR) Courses

RECR 300 Introduction to Recreation and Leisure Services

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course is an overview of recreation, park, and leisure services. It covers recreation as a form of community service, as well as the nature, scope, and significance of leisure and recreation as a social force in contemporary society. It emphasizes the role of the professional leader in organizing recreation programs and services, operations, facilities, and resources. Field trips may be required.

RECR 310 Outdoor Recreation

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course is an orientation to job opportunities in the outdoor recreation field. It includes an overview of different types of outdoor recreation, socio-economic factors in outdoor recreation, the role of government, the role of the private sector, management, and issues and trends in outdoor recreation. Philosophies and operating purposes of outdoor recreation facilities run by federal, state, and local governments are discussed. Virtual and or in-person field trips are required.

RECR 320 Recreation Activity Leadership

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This is an introductory course for recreation majors, involving a study of essential elements and basic principles of organization and leadership of various types of recreation programs. It covers the methods and materials used in planning and conducting organized recreation programs in public and private agencies. It also emphasizes the role of the leader in organizing recreational programs in a variety of settings. Field trips may be required.

RECR 498 Work Experience in Recreation

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Recreation Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of recreation. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

RECR 499 Experimental Offering in Recreation

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Regional Public Safety Training Center

Overview

The Regional Public Safety Training Center (RPSTC), operated by American River College, provides high-quality training and educational programs for public safety personnel. The center offers entry-level and advanced in-service instruction in areas that meet the needs of individuals as well as public and private agencies.

All courses meet the academic standards of the Los Rios Community College District. These courses may be certified by the California Commission on Peace Officers Standards and Training (POST) and the California State Fire Marshal's Office. Most courses presented at the RPSTC are offered in an intensive, concentrated, short-term format.

Graduates from the basic core courses may be eligible for employment in county and city law enforcement agencies specializing in police, corrections and/or probation.

Dean: John McCormack

Phone: (916) 570-5000

Email: askhb-publicservice@arc.losrios.edu

Fire and Forestry Services (FFS) Courses

FFS 1500 All Hazards Operations Section Chief (S-430/E-958)

Units: 1.5

Hours: 24.5 hours LEC; 7.7 hours LAB

Prerequisite: FFS 1510, 1511, and 1514 with grades of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1500) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

The purpose of this course is to provide local and state-level emergency responders with an overview of key duties and responsibilities of an Operations Section Chief Type-III in a Type III All-Hazards Incident Management Team (AHIMT). Topics include roles and responsibilities, management cycle, strategy and planning, contingency planning, supervision and communications, managing and adjusting the operations section, risk assessment and safety management, and personnel interaction. Pass/No Pass only.

FFS 1501 United States Department of Agriculture (USDA) Foundational Academy

Units: 7

Hours: 114.5 hours LEC; 45.5 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1501) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs.

This course is designed to provide the skills and knowledge necessary to perform as a team leader. Topics include leadership, fire fighting skills, fire behavior, basic air operations, firing equipment and techniques, fireline fatalities, and physical training. This course is presented in a formal academy setting. This course was formerly listed as FIRE 1502. This course is not open to students who have completed FIRE 1502. Pass/No Pass only.

FFS 1502 United States Department of Agriculture (USDA) Core Academy

Units: 5.5

Hours: 63.5 hours LEC; 112.5 hours LAB

Prerequisite: FFS 1501 with a grade of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1502) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs.

This course is designed to provide the skills and knowledge necessary to perform as a skilled Wildland Firefighter. Topics include physical fitness, wellness, nutrition, first responder medical, risk and safety, effects of fire, firing operations, helicopter transport of external loads, fire line construction, hand tool use, communications, leadership, and firefighter skills. The academy is presented in a formal setting. This course was formerly listed as FIRE 1501. This course is not open to students who have completed FIRE 1501. Pass/No Pass Only.

FFS 1503 USDA Suburban Emergency Response (SUBE)

Units: 1.25

Hours: 20 hours LEC; 12 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1503) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, 2) have obtained Advanced Firefighter/ Squad Boss (FFT1), and 3) be required to meet OSHA requirements concerning facial hair and Self Contained Breathing Apparatus (SCBA).

The course provides a baseline training level to assist the performance on a variety of all-risk emergency incidents. Topics include being able to recognize hazardous situations that may arise in the wildland interface and act responsibility under current regulations and policies utilizing current fire suppression tactics and protective equipment.

FFS 1510 Intermediate Incident Command System (I-300)

Units: 0.75

Hours: 12.5 hours LEC; 5.5 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1510) the student must be 1) an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, and 2) successful completion of Incident Command System (I-200), which is an online course offered by Federal Emergency Management Agency (FEMA).

This course provides expanded description and detail of the organization and operation of the Incident Command System (ICS). Topics include management of expanding incidents, incident/event management process, and development of an

Incident Action Plan (IAP). This course was formerly listed as FIRE 1622 prior to November 2017. This course is not open to students who have completed FIRE 1622.

FFS 1511 Advanced Incident Command System (I-400)

Units: 0.75

Hours: 16 hours LEC

Prerequisite: FFS 1510

Enrollment Limitation: To enroll in this course (FFS 1511) the student must be 1) an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course provides in-depth training in the Incident Command System (ICS) and its components. This course provides the necessary training needed to manage and command large scale complex incidents, as well as the knowledge to develop organizational structures. Topics include fundamentals review for command and general staff, major and/or complex incident/event management, area command, and multi-agency coordination. This course was formerly listed as FIRE 1623 prior to November 2017.

FFS 1512 National Incident Management System (NIMS) ICS All-Hazards Safety Officer (E954)

Units: 1.5

Hours: 27 hours LEC; 5 hours LAB

Prerequisite: FFS 1510, 1511, and 1514 with grades of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1512) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course provides local and state-level emergency responders with an overview of key duties and responsibilities of a safety officer type III in a type-III All-Hazards Incident Management Team (AHIMT). Topics include incident safety officer's role, obtaining information, identifying hazards and risks, prioritizing and managing hazards and risks, site safety and control planning, and incident safety planning. Pass/No Pass only.

FFS 1514 Command and General Staff (S-420)

Units: 1.5

Hours: 26 hours LEC; 10 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1514) the student must be 1) an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, and 2) strongly recommended that the student has completed all prerequisite experience and course work to be qualified at the type 2 level as an incident commander (ICT2), command, or general staff.

This course prepares students to function effectively in the position of a type 2 incident commander, command, or general staff. It focuses on the application of previously acquired knowledge and skills. Topics include effective decision making, team interaction, transfer of command, and the planning process. Pass/No Pass only.

FFS 1516 National Incident Management System (NIMS) ICS All-Hazards Division/ Group Supervisor (E960/S339)

Units: 0.75

Hours: 13.75 hours LEC; 6.25 hours LAB

Prerequisite: None.

Enrollment Limitation: Qualified as a Task Force Leader (TFLD) OR qualified as an Incident Commander Type 3 (ICT3) OR qualified as an Incident Commander Type 4 (ICT4) and in any two strike team leader positions (one must be STCR or STEN).

The purpose of this course is to provide local and State-level emergency responders with an overview of key duties and responsibilities of a Division/Group Supervisor type-III in a type-III All-Hazards Incident Management Team (AHIMT). Topics include overview of the Strike Team/Task Force Leader Positions, Division/Group management and personnel management, information gathering and briefings, and the role in the planning process. Pass/No Pass only.

FFS 1518 Fire Program Management (M-581)

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1518) the student must be 1) an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, 2) recommends students obtain the competencies provided in Fireline Leadership (L-380), 3) Introduction to Fire Effects (RX-310), and 4) Intermediate ICS (ICS-300) prior to attending this course.

This training course meet the needs of current and future unit-level fire program managers. It is intended to aid in the application of fire management principles in sound decision making, business management, human resource management, administrative functions, use of state-of-the-art tools and methods in fire management programs, and recognition of the necessity for personal accountability required in fire program management. Topics include safety, decision making, laws, fire management plans, policy, budget planning, execution and monitoring, management implications, preparedness, and managing the fire program. Pass/No Pass only.

FFS 1519 Facilitative Instructor (M-410)

Units: 1.25

Hours: 17 hours LEC; 19 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1519) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course presents quality instructional delivery methods with an emphasis on student-oriented adult training techniques. It is designed for students to meet National Wildfire Coordinating Group (NWCG) instructor requirements. Topics include instructional tools and equipment, verbal and nonverbal communications, presentation skills, course coordination, and ethics. Pass/No Pass only.

FFS 1520 Helibase Manager (S-371)

Units: 1

Hours: 13 hours LEC; 19 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1520) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, and 2) qualified as a helicopter manager, single resource (HMGB).

This course provides students with the skills necessary to perform as a helibase manager through facilitated discussions and group exercises. It gives students a realistic helibase manager experience which prompts the student to communicate, resolve issues, and make decisions in support of an incident. Topics include common responsibilities, procedures, and duties, helibase organization, briefings, selection and layout, helibase tactical log, emergency procedure, and military aviation operations. Pass/No Pass only.

FFS 1521 Helicopter Manager (S-372)

Units: 1.25

Hours: 20 hours LEC; 20 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1521) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, and 2) satisfactory performance as a helicopter crewmember (HECM).

This course prepares students to perform the job of helicopter manager. Topics include policy, dispatching and ordering, contract administration and pay documents, load calculations, risk management and simulation. The final exercise gives students a realistic helicopter manager experience. Pass/No Pass only.

FFS 1522 Air Support Group Supervisor (S-375)

Units: 1

Hours: 20 hours LEC

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1522) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, and 2) qualified as a helibase manager type 1 (HEB1).

This course prepares the student for the duties and responsibilities of the Air Support Group Supervisor (ASGS). Topics include addressing aviation safety, risk management, airspace coordination, dispatch relations and coordination, fixed-wing, rotor-wing, and military operations. This course is to prepare students to make the transition from being a type 1 helibase manager (HEB1) to an ASGS. Pass/No Pass only.

FFS 1523 Aerial Supervision (S-378)

Units: 1.75

Hours: 32 hours LEC; 8 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1523) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a state fire agency.

This course is designed to meet the training needs of an Air Tactical Group Supervisor (ATGS), Helicopter Coordinator (HLCO), lead plane pilot, Air Tanker Coordinator (ATCO), and Aerial Supervision Module (ASM) crewmember as outlined in the Interagency Aerial Supervision Guide (IASG). Topics include aerial supervision program introduction, aerial supervision roles and responsibilities, administration, training, certification, currency, policies, incident aircraft, suppressants and retardants, aerial supervision mission procedures, aerial firefighting strategy and tactics, incident aircraft operations, all-hazard incidents, and safety. Pass/No Pass only.

FFS 1524 Helicopter Management Refresher (RT-372)

Units: 1

Hours: 20 hours LEC

Prerequisite: FFS 1521 with a grade of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1524) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course is a refresher course for the job of helicopter manager. Topics include policy review, dispatching and ordering, contract administration and pay documents update, risk management, and operational review. Pass/No Pass only.

FFS 1525 Air Tactical Group Supervisor (ATGS) Workshop (RT-378)

Units: 1

Hours: 20 hours LEC

Prerequisite: FFS 1522 and 1523 with grades of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1525) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This is a workshop course for the job of Air Tactical Group Supervisor (ATGS). Topics include aviation safety/risk management, airspace coordination, dispatch coordination, fixed-wing and rotor-wing operations, contract administration, and operational review. Pass/No Pass only.

FFS 1530 Expanded Dispatch Support Dispatcher (D-310)

Units: 1.5

Hours: 23.5 hours LEC; 12.5 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1530) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, and 2) qualified as an expanded dispatch recorder (EDRC).

This course prepares the student to accomplish the duties and responsibilities of an Expanded Dispatch Support Dispatcher (EDSD). Topics include Resource Ordering and Status System (ROSS); planning and implementing a dispatch area to meet

the needs of the incident(s); policies and procedures using resource orders and supplemental forms; mobilizing, reassigning, and demobilizing resources; and demonstrating the ability to respond to changing priorities and situations. Pass/No Pass only.

FFS 1531 Initial Attack Dispatcher (D-311)

Units: 1.25

Hours: 22 hours LEC; 10 hours LAB

Prerequisite: FFS 1540 with a grade of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1531) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, 2) successful completion of Basic Firefighter (S-130), and 3) qualified as dispatch recorder (EDRC).

This course provides a consistent knowledge and skill base for the initial attack dispatcher (IADP). It includes concepts that will help an IADP perform at an acceptable level on a national basis without regard to geographic boundaries. Topics include initial attack dispatching, extended attack support, maps and aviation charts, and radio use. Pass/No Pass only.

FFS 1532 Aircraft Dispatcher (D-312)

Units: 1.75

Hours: 32 hours LEC; 8 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1532) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, and 2) qualified as dispatch recorder (EDRC).

This course provides a consistent knowledge and skill base for the aircraft dispatcher (ACDP). It includes concepts that will help an ACDP perform at an acceptable level on a national basis without regard to geographic boundaries. It also provides an overview of aircraft dispatching, maps and aviation charts, decision making, situational awareness, airspace coordination, safety, and aircraft. Pass/No Pass only.

FFS 1533 ROSS Dispatch (NROSSD)

Units: 1.5

Hours: 28.5 hours LEC; 3.5 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1533) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, 2) have successfully completed I-100 Incident Command System (Introduction), 3) have successfully completed I-200 Incident Command System (Basic), and 4) successfully completed D-110 Expanded Dispatch Recorder.

This course prepares students to perform the duties of the Resource Ordering and Status System (ROSS) dispatching system. Topics include how to create an incident, create a request, fill orders, release and reassign resources. Pass/No Pass only.

FFS 1534 USDA Law Enforcement Dispatch (LEDSP)

Units: 1.5

Hours: 28 hours LEC; 4 hours LAB

Prerequisite: FFS 1531 with a grade of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1534) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This is an interagency course for wildland dispatchers, designed to help the students understand the roles and functions of law enforcement dispatching in the emergency dispatch centers. Topics include law enforcement incidents, agencies, organizational structures, the importance of the dispatcher as first point of contact, appropriate response to a incident, procedures for making inquiry into law enforcement information systems, and cross referencing the information obtained within these systems. Pass/No Pass only.

FFS 1540 Introduction to Wildland Fire Behavior (S-190)

Units: 0.25

Hours: 8 hours LEC

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1540) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This is the first course in a series that collectively serves to develop fire behavior prediction knowledge and skills. Topics include the fire triangle, topography, fuels, weather, and fire behavior. Pass/No Pass only.

FFS 1541 Intermediate Wildland Fire Behavior (S-290)

Units: 1.75

Hours: 32 hours LEC

Prerequisite: FFS 1540 with a grade of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1541) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This is the second course in a series that collectively serves to develop fire behavior prediction knowledge and skills. Topics include the fire environment, topographic influences, fuels, weather, wind, fuel moisture, and extreme fire behavior. Pass/No Pass only.

FFS 1542 Introduction to Wildland Fire Behavior Calculations (S-390)

Units: 1.5

Hours: 29 hours LEC; 3 hours LAB

Prerequisite: FFS 1541 with a grade of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1542) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course provides an introduction into fire behavior calculations by manual methods, using nomograms, and the Fireline Handbook Appendix B: Fire Behavior. Topics include studying inputs (weather, slope, fuels, and fuel moisture), interpreting fire behavior outputs, documentation processes, and fire behavior briefing components. Pass/No Pass only.

FFS 1543 Advanced Fire Behavior Calculations (S-490)

Units: 2

Hours: 34 hours LEC; 6 hours LAB

Prerequisite: FFS 1542 with a grade of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1543) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, and 2) satisfactory completion of Introduction to Wildland Fire Behavior Calculations (S-390).

This course prepares students desiring to become qualified as a prescribed fire burn boss type 1 (RXB1). Topics include atmospheric stability, critical fire weather patterns, crown fire behavior, wildland fire behavior on slopes, predicting large fire growth, and adapting large scale winds to local terrain. Pass/No Pass only.

FFS 1544 Intermediate National Fire Danger Rating System (S-491)

Units: 1.5

Hours: 24 hours LEC; 12 hours LAB

Prerequisite: FFS 1541 and 1556 with grades of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1544) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, 2) satisfactory completion of Intermediate Wildland Fire Behavior (S-290), 3) demonstrate at least intermediate skills with the current Windowsâ„¢ operating system, 4) possess a valid Weather Information Management System (WIMS) and Wildland Fire Management Information (WFMI) system logon identification, and 5) current and comprehensive working knowledge of WIMS (the WIMS course is strongly recommended to attain this prerequisite knowledge).

This course provides the knowledge and skills necessary to operate, apply, and manage the National Fire Danger Rating System (NFDRS). Topics include NFDRS input, calculations and inputs, data retrieval and analysis, decisions, and application. Pass/No Pass only.

FFS 1545 Prescribed Fire Implementation (RX301)

Units: 1

Hours: 15.75 hours LEC; 8.25 hours LAB

Prerequisite: FFS 1542 with a grade of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1545) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, 2) qualified as a firing boss (FIRB) and incident commander type 4 (ICT4), and 3) proficient in the use of BehavePlus.

Advisory: Students desiring to take both RX-341 (Prescribed Fire Plan Preparation) and RX-301 will benefit from taking RX-341 first.

This course introduces students to the tools and techniques used to perform in the role of a prescribed fire burn boss. Topics include operational leadership, liability, prescribed fire plan evaluation, pre-burn preparation, pre-burn operations, contingency operations, post-burn activities, and documentation. Pass/No Pass only.

FFS 1546 Introduction to Fire Effects (RX-310)

Units: 1.25

Hours: 21.5 hours LEC; 10.5 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1546) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, 2) a working knowledge of fire behavior, and 3) a understanding of basic ecological principles.

This course prepares the student with the knowledge and skills necessary to recognize and communicate the relationships between basic fire regimes and first-order fire effects. Topics include fire effects on biological systems, fire in ecosystems, fire effects on the physical environment, fire effects on the cultural resources, and management considerations. Pass/No Pass only.

FFS 1547 Prescribed Fire Plan Preparation (RX341)

Units: 1.5

Hours: 26 hours LEC; 6 hours LAB

Prerequisite: FFS 1542 with a grade of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1547) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, 2) proficient in the use of BehavePlus, and 3) fire personnel must be qualified as Incident Commander Type 4 (ICT4).

Advisory: Students desiring to take both RX-341 and RX-301 (Prescribed Fire Implementation) will benefit from taking RX-341 first.

This course prepares students with the skills/knowledge to prepare a prescribed fire plan for technical review and approval in accordance with the Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide. Topics include policies and guidelines, goals and objectives, risk assessment, prescription development and scheduling, smoke management and air quality, implementation of the planning process, monitoring, funding, post-burn activities, and final complexity rating. Pass/No Pass only.

FFS 1548 Smoke Management Techniques (RX-410)

Units: 1.5

Hours: 28 hours LEC; 4 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1548) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, and 2) students should have a background in prescribed fire planning, implementing, monitoring, permitting or smoke/air regulating.

This course leads students through the ecological and historical role of fire, characteristics of smoke and the health, safety and visibility impacts of smoke. Other topics include public relations, legal requirements, meteorology, fuel consumption, smoke production dispersion modeling, and operational smoke management strategies. The pre-course work assignment is designed to familiarize students with the Smoke Management Guide and air quality regulations that impact prescribed fire programs. Pass/No Pass only.

FFS 1550 All Hazards Planning Section Chief (S-440/E-962)

Units: 1.25

Hours: 24 hours LEC

Prerequisite: FFS 1510, 1511, and 1514 with grades of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1550) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, and 2) Resources Unit Leader (RESL), Situation Unit Leader (SITL), Planning Section Chief type 3 (PSC3), Operations Section Chief type 2 (OSC2), Safety Officer type 2 (SOF2), or Logistics Lection Chief type 2 (LSC2).

This course provides local and state-level emergency responders with an overview of key duties and responsibilities of a Planning Section Chief type-III in a Type III All-Hazards Incident Management Team (AHIMT). Topics include the role of the Planning Section Chief, Resources Unit and Situation Unit, initial response, the planning cycle, interactions, and an overview of the documentation and demobilization units. Pass/No Pass only.

FFS 1552 National Incident Management System (NIMS) ICS All-Hazards Resources Unit Leader (E965/S349)

Units: 1

Hours: 15.5 hours LEC; 8.5 hours LAB

Prerequisite: FFS 1510, 1511, and 1514 with grades of "C" or better

Enrollment Limitation: To enroll in the course, you must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's, Bureau of Land Management, National Park Service, United States Fish and Wildlife Service and the Bureau of Indian Affairs, or a member of a Local, or State Fire Agency.

This course provides local and State-level emergency responders with an overview of key duties and responsibilities of a Resources Unit Leader (RESL) type III in a type-III All-Hazards Incident Management Team (AHIMT). Topics include overview of the planning section and process, overview of the resources unit, tracking resource status, operational planning, unit products/outputs, and demobilization. Pass/No Pass only.

FFS 1553 Incident Training Specialist (S-445)

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1553) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

The course is designed to meet the training needs of the incident training specialist (TNSP) on an incident as outlined in the Wildland Fire Qualification System Guide PMS 310-1, and the position task book. Topics include roles and responsibilities, initiating the incident training program, individual training plans, and incident training activities. Pass/No Pass only.

FFS 1556 Weather Information Management System (WIMS)

Units: 1

Hours: 16 hours LEC; 8 hours LAB

Prerequisite: FFS 1541 with a grade of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1556) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course meets the training needs of individuals charged with the collection and maintenance of fire weather data collected from remote automated weather systems used to support the National Fire Danger Rating System (NFDRS). Topics include WIMS navigation and functionality, weather station siting and maintenance, observations, weather forecaster interactions, managing the model, viewing outputs, and troubleshooting. Pass/No Pass only.

FFS 1560 All-Hazards Logistics Section Chief (E-967)

Units: 2

Hours: 35 hours LEC; 5 hours LAB

Prerequisite: FFS 1510, 1511, and 1514 with grades of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1560) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course provides local and state-level emergency responders with an overview of key duties and responsibilities of a logistics section chief on a type III or IV All Hazards Incident Management Team (AHIMT). Topics include overview of the facilities, ground support, supply, food, medical, and communications units as well as coordination with command and general staff. Pass/No Pass only.

FFS 1562 Facilities Unit Leader (S-354)

Units: 1

Hours: 20.5 hours LEC; 3.5 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1562) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, and 2) satisfactory performance as a base/camp manager (BCMG).

This course prepares students to perform the job of facilities unit leader (FACL). Topics include an introduction to operational leadership, mobilization, arrival at an incident, risk management, safety and tactics, demobilization, and post-incident responsibilities.
Pass/No Pass only.

FFS 1563 Ground Support Unit Leader (S-355)

Units: 0.5

Hours: 12 hours LEC; 4 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1563) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course prepares students to perform the duties of managing the transportation plan, maintenance, and related services at an incident. Topics include gathering information about the assignment; organizing, staffing, and laying out the unit; field inspection of equipment; operation and coordination of the unit with other units; and demobilization. Pass/No Pass only.

FFS 1564 All-Hazards Supply Unit Leader (E-970/S-356)

Units: 1.25

Hours: 21 hours LEC; 9 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1564) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course provides the information required for a supply unit leader in the Incident Command System's (ICS) logistics section. Topics include setup and management of the supply unit, demobilization, the ordering process, maintaining inventory, incident mobilization, initial situational awareness, and receiving and distributing items. Pass/No Pass only.

FFS 1565 Food Unit Leader (S-357)

Units: 1.5

Hours: 28 hours LEC; 4 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1565) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course meets the training needs of a food unit leader (FDUL). Topics include information about the assignment, coordination, general information, safe food handling, national contract administration, alternate feeding methods, and

demobilization. A significant portion of this course is devoted to examining the administration of the National Mobile Food Services Contract as it applies to the FDUL. Pass/No Pass only.

FFS 1566 Remote Automated Weather Station (RAWS) Maintenance

Units: 1.25

Hours: 23.5 hours LEC; 4.5 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1566) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course trains students to understand National Fire Danger Rating System (NFDRS) requirements concerning RAWS stations. Topics include Wildfire Management Information (WFMI), weather navigation, checking observations, ordering parts, and completing post-trip input data. Pass/No Pass only

FFS 1570 National Incident Management System (NIMS) ICS All-Hazards Finance/ Administration Unit Leader (E975)

Units: 1.25

Hours: 24 hours LEC

Prerequisite: FFS 1510, 1511, and 1514 with grades of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1570) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course provides local and state-level emergency responders with an overview of key duties and responsibilities of a finance/administration section chief type III on a type-III All-Hazards Incident Management Team (AHIMT). Topics include functions of the finance/administration section; responsibilities of the time unit, cost unit, compensation/ claims unit, and procurement unit. Pass/No Pass only.

FFS 1571 National Incident Management System (NIMS) All-Hazards Finance/ Admin Section Chief (E-973)

Units: 1.25

Hours: 24 hours LEC

Prerequisite: FFS 1510, 1511, and 1514 with grades of "C" or better

Enrollment Limitation: To enroll in this course (FFS 1571) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course provides local and state-level emergency responders with an overview of key duties and responsibilities of a Finance/Administration section chief type III on a type-III All-Hazards Incident Management Team (AHIMT). Topics include information gathering and sharing, section management, and interaction and coordination. Pass/No Pass only.

FFS 1574 Incident Contract Project Inspector (S-262)

Units: 0.75

Hours: 16 hours LEC; 4 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1574) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course introduces students to tools and techniques used to perform the duties of the Incident Contract Project Inspector (ICPI). Topics include an overview of what to expect if dispatched to an incident, basic contract administration, types of equipment to be inspected, and inspection opportunities to inspect equipment. Pass/No Pass only.

FFS 1575 Human Resource Specialist (S-340)

Units: 1

Hours: 17.5 hours LEC; 6.5 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1575) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.

This course provides the technical skills and knowledge needed to fulfill the role of Human Resource Specialist (HRSP) on emergency incidents. Topics include assignment preparation, incident contacts, incident personnel rights and responsibilities, mutual respect, problem resolution assistance, documentation and reports, personnel safety, security, and wellness. Pass/No Pass only.

FFS 1576 Incident Business Advisor (S-481)

Units: 1

Hours: 20 hours LEC

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1576) the student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, and 2) experience working with complex organizations such as Area Command, Multi-agency Coordinating (MAC) Group, Unified Command, Federal Emergency Management Agency (FEMA), or experience working with incident management teams, interagency cooperators and additional support organizations during incidents, or satisfactory performance as a unit leader or section chief type 1 or type 2, or working incident business management knowledge acquired through incident assignments, or as a business leader on an agency unit.

This course prepares students to become an interagency incident business advisor (INBA) resource for all-hazards incidents. Topics include preparation for an assignment, interactions/activities, and relationship to cost objectives. Pass/No Pass only.

FFS 1580 USDA Intelligence Support Specialist (N9032)

Units: 1.5

Hours: 30 hours LEC; 2 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FFS 1580), a student must 1) be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency, and 2) must have successfully completed Introduction to Incident Command System (ICS), I-100, which is an online course provided by Federal Emergency Management Agency (FEMA).

This course provides students with a working knowledge of the functions and responsibilities of the Intelligence Support position within the dispatch/coordination system. Topics include basic terminology and concepts related to maps, weather, fire danger, preparation and submission of reports and briefings, and product dissemination.

Firefighting Training Center (FIRE) Courses

FIRE 1084 Wildfire Powersaws Refresher (S-212)

Units: 0.5

Hours: 8 hours LEC; 8 hours LAB

Prerequisite: FIRE 1809

This course is designed to refresh and re-certify chainsaw operators in the job performance requirements of the wildfire power saw operator position in the Incident Command System and on the fire ground. Pass/No Pass only.

FIRE 1100 Fire Control 3A (Structural Fire Fighting in Acquired Structures)

Units: 0.25

Hours: 1 hours LEC; 15 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FIRE 1100) the student must be an employee of a federal fire fighting agency, or a member of a state or local fire agency.

This course is designed to develop fundamental skills in combating structure fires by providing the students with a thorough understanding of structural fire attack, utilizing an acquired structure. Topics include fire behavior, ventilation, interior attack, and exterior attack. Pass/No Pass only.

FIRE 1101 Fire Control 3B (Structural Fire Fighting in Live-fire Simulators)

Units: 0.25

Hours: 1 hours LEC; 15 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FIRE 1101) the student must be an employee of a federal fire fighting agency, or a member of a state or local fire agency.

This course is designed to develop fundamental skills in combating structure fires by providing the students with a thorough understanding of structural fire attack, utilizing a live-fire simulator. Topics include fire behavior, ventilation, interior attack, and exterior attack. Pass/No Pass only.

FIRE 1102 Fire Control 4A (Ignitable Liquids and Gases Awareness/ Operations)

Units: 0.25

Hours: 4 hours LEC; 8 hours LAB

Prerequisite: The following topics from the State Fire Training Fire Fighter 1 curriculum must be completed: Fire Fighter Safety (Unit 2), Communications (Unit 3), Structural Fire Suppression (Unit 5), Suppression of Fires Outside of a Structure (Unit 7), and Hazardous Materials/Weapons of Mass Destruction (WMD) (Unit 9). One of the following courses may be used in place of Hazardous Materials/WMD (Unit 9): First Responder Hazmat Operational (FRO) (SFT), First Responder Operations (CTSI), Hazardous Materials Responder at the Core Operations Level: With Product Control, or PPE Mission Specific Competencies (IAFF).

Enrollment Limitation: To enroll in this course (FIRE 1102) the student must be an employee of a federal fire fighting agency or a member of a state or local fire agency.

This course provides the knowledge and skills that prepare a firefighter to extinguish an ignitable liquid fire, control a flammable gas fire, and develop an incident action plan for a pipeline emergency. Topics include ignitable liquid fires, flammable gas fires, pipeline emergencies, and skills exercises. Pass/No Pass only.

FIRE 1103 Fire Control 3: Structural Fire Fighting

Units: 0.5

Hours: 14 hours LEC; 10 hours LAB

Prerequisite: Meet the minimum job performance requirements for Fire Fighter 1 in National Fire Protection Association (NFPA) 1001: Standard for Fire Fighter Professional Qualifications related to safety; fire behavior; portable extinguishers; personal protective equipment (PPE); ladders; fire hose, appliances, and streams; overhaul; water supply; ventilation; forcible entry; and building construction (NFPA 1403 (2018)) OR State Fire Training (SFT) Fire Fighter 1 certification

Enrollment Limitation: Students who have taken and passed FIRE 1100 and FIRE 1101 are not eligible for this course.

This course provides the knowledge and skills that prepare a fire fighter to locate, control, and extinguish an interior structure fire. Pass/No Pass only.

FIRE 1104 Fire Control 4B (Ignitable Liquids and Gases Technician)

Units: 0.25

Hours: 7 hours LEC; 5 hours LAB

Prerequisite: FIRE 1102 with a grade of "C" or better; Students who completed Fire Control 4 (2015) or Fire Control 4A (2022) are eligible for this course.

Enrollment Limitation: To enroll in this course (FIRE 1104) the student must be an employee of a federal fire fighting agency, or a member of a state or local fire agency.

This course provides the skills and knowledge needed to identify the regulations, construction, operations, and hazards associated with ignitable liquid and gas transportation, bulk storage, and pipelines. Pass/No Pass Only.

FIRE 1130 Company Officer 2A (Human Resource Management for Company Officers)

Units: 1.75

Hours: 33 hours LEC; 7 hours LAB

Prerequisite: FIRE 1507 with a grade of "C" or better

This course provides information on the use of human resources to accomplish assignments, evaluate member performance, supervise personnel, and integrate health and safety plans, policies, and procedures into daily activities as well as the emergency scene. Topics include human resource management, and health and safety. Pass/No Pass only.

FIRE 1131 Company Officer 2B (General Administration Functions for Company Officers)

Units: 0.75

Hours: 15 hours LEC; 5 hours LAB

Prerequisite: FIRE 1507 with a grade of "C" or better

This course provides information on general administrative functions and the implementation of department policies and procedures and addresses conveying the fire department's role, image, and mission to the public. Topics include administration, and community and government relations. Pass/No Pass only.

FIRE 1132 Company Officer 2C (Fire Inspections and Investigation for Company Officers)

Units: 1.75

Hours: 33 hours LEC; 7 hours LAB

Prerequisite: FIRE 1507 with a grade of "C" or better

This course provides information on conducting inspections, identifying hazards and addressing violations, performing a fire investigation to determine preliminary cause, and securing the incident scene and preserving evidence. Topics include orientation, fire and life safety inspections, and fire investigation. Pass/No Pass only.

FIRE 1133 Company Officer 2D (All-Risk Operations for Company Officers)

Units: 1.25

Hours: 20 hours LEC; 20 hours LAB

Prerequisite: FIRE 1507 and 1602 with grades of "C" or better

Enrollment Limitation: Completion of Incident Command System (I-200), which is an online course offered by Federal Emergency Management Agency (FEMA).

This course provides information on conducting incident size-up, developing and implementing an initial plan of action involving single and multiunit operations for various types of emergency incidents to mitigate the situation following agency safety procedures, conducting preincident planning, and develop and conduct a post-incident analysis. Topics include initial Incident Action Plan (IAP), postincident analysis, operational planning, and service demands. Pass/No Pass only.

FIRE 1134 Company Officer 2E (Wildland Incident Operations for Company Officers)

Units: 1.75

Hours: 28 hours LEC; 12 hours LAB

Prerequisite: FFS 1541, FIRE 1133, and FIRE 1507 with grades of "C" or better

This course provides information on evaluating and reporting incident conditions, analyzing incident needs, developing and implementing a plan of action to deploy incident resources completing all operations to suppress a wildland fire, establishing an incident command post, creating and incident action plan, and completing incident records and reports. Topics include report on conditions, ongoing incident conditions, establishing an incident command post, deploying resources, incident needs, suppression operations, personnel needs and issues, and incident records and reports. Pass/No Pass only.

FIRE 1140 Chief Fire Officer 3A: Human Resources Management

Units: 1

Hours: 16.25 hours LEC; 9.75 hours LAB

Prerequisite: None.

Enrollment Limitation: Meet the educational requirements for Company Officer, or seeking Fire Marshal Certification.

This course provides students with a basic knowledge of the human resources requirements related to the roles and responsibilities of a chief fire officer. Topics include developing plans for providing employee accommodation, developing hiring procedures, establishing personnel assignments, describing methods of facilitating and encouraging professional development, developing an ongoing education training program, developing promotion procedures, developing proposals for improving employee benefits, and developing a measurable accident and injury prevention program. Pass/No Pass only.

FIRE 1141 Chief Fire Officer 3B: Budget and Fiscal Responsibilities

Units: 0.5

Hours: 9.5 hours LEC; 8.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Meet the educational requirements for Company Officer.

This course provides students with a basic knowledge of the budgeting requirements related to the roles and responsibilities of a Chief Fire Officer. Topics include developing a budget management system, developing a division or departmental budget, and describing the process for ensuring competitive bidding. Pass/No Pass only.

FIRE 1142 Chief Fire Officer 3C: General Administration Functions for Chief Fire Officers

Units: 0.75

Hours: 14 hours LEC; 10 hours LAB

Prerequisite: None.

Enrollment Limitation: Meet the educational requirements for Company Officer.

This course provides a basic knowledge of the administration requirements related to the roles and responsibilities of a Chief Fire Officer. Topics include directing a department record management system, analyzing and interpreting records and data, developing a model plan for continuous organizational improvement, developing a plan to facilitate approval, preparing community awareness programs, and evaluating the inspection program of the Agency Having Jurisdiction (AHJ). Pass/No Pass only.

FIRE 1143 Chief Fire Officer 3D: Emergency Service Delivery Responsibilities

Units: 0.75

Hours: 12.5 hours LEC; 11.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Meet the educational requirements for Company Officer.

This course provides basic knowledge of the emergency service requirements related to the roles and responsibilities of a Chief Fire Officer. Topics include developing a plan for the integration of fire services resources, developing an agency resource contingency plan, evaluating incident facilities, supervising multiple resources, developing and utilizing an incident action plan, obtaining incident information to facilitate transfer of command, developing and conducting a post-incident analysis, and maintaining incident records. Pass/No Pass only.

FIRE 1150 Executive Chief Fire Officer: Human Resource Management

Units: 1

Hours: 19 hours LEC; 9 hours LAB

Prerequisite: None.

Enrollment Limitation: Meet educational requirements for Chief Fire Officer

This course provides the skills and knowledge needed to perform his/her duties safely, effectively, and competently. Topics include selection and placement of human resources, development of a positive and participative member/management program, establishment and evaluation of a list of education and in-service training goals, appraisal of a member assistance program, and the evaluation of an incentive program to determine if the desired results are achieved. Pass/No Pass only.

FIRE 1151 Executive Chief Fire Officer: Community and Government Relations

Units: 0.25

Hours: 6.5 hours LEC; 4 hours LAB

Prerequisite: None.

Enrollment Limitation: Meet educational requirements for Chief Fire Officer

This course introduces the skills and knowledge needed to perform his/her duties safely, effectively, and competently. Topics include assuming a leadership role in community events. Pass/No Pass only.

FIRE 1152 Executive Chief Fire Officer: Administration

Units: 1.25

Hours: 21.5 hours LEC; 9 hours LAB

Prerequisite: None.

Enrollment Limitation: Meet educational requirements for Chief Fire Officer

This course introduces the skills and knowledge needed to perform one's duties safely, effectively, and competently. Topics include developing a comprehensive, long-range plan, evaluating and projecting training requirements, assessing facility and building needs, completing a written comprehensive risk, hazard, and value analysis, and developing a plan for a capital improvement project or program. Pass/No Pass only.

FIRE 1153 Executive Chief Fire Officer: Emergency Services Delivery

Units: 2

Hours: 35.5 hours LEC; 3 hours LAB

Prerequisite: None.

Enrollment Limitation: Meet educational requirements for Chief Fire Officer

This course provides the skills and knowledge needed to perform his/her duties safely, effectively, and competently. Topics include developing a comprehensive disaster plan and a comprehensive plan for the organization to operate at a civil disturbance. Pass/No Pass only.

FIRE 1154 Executive Chief Fire Officer: Health and Safety

Units: 0.5

Hours: 11.5 hours LEC; 3 hours LAB

Prerequisite: None.

Enrollment Limitation: Meet educational requirements for Chief Fire Officer

This course introduces the skills and knowledge needed to perform his/her duties safely, effectively, and competently. Topic include maintaining, developing, and providing leadership for a risk management program. Pass/No Pass only.

FIRE 1160 Incident Management of Major Fires

Units: 1.25

Hours: 16 hours LEC; 24 hours LAB

Prerequisite: FFS 1510 with a grade of "C" or better

This course covers the knowledge, skills, and abilities for those who are responsible for command and control of dynamic and complex fireground emergencies. Topics include assuming command, situational awareness and risk assessment process, Incident Action Plan (IAP), incident organization, accountability and command worksheets, continuing, transferring, and terminating command, and simulations. Pass/No Pass only.

FIRE 1161 Incident Management of High-Rise Fires

Units: 1.5

Hours: 20.5 hours LEC; 19.5 hours LAB

Prerequisite: FIRE 1133 and 1160 with grades of "C" or better

This course provides knowledge, skills, and abilities required for those managing incidents occurring in large, multistory buildings. These incidents may present significant management, logistical, and safety challenges to emergency personnel. The size and complexity of the interior spaces; limited, sometimes arduous access; extended travel and response times; and the concentrated occupant load with egress challenges, all contribute to the problems faced by emergency responders. Additionally, most high-rise structures are equipped with various environmental, fire protection, and life-safety systems that require support and control. Successful emergency operations in these types of buildings also require preplanning and technical competence on the part of the emergency responders. Topics include identifying critical factors and hazards, identifying construction and fire-protection features, response roles and responsibilities, development and multi-division/group response roles and responsibilities, development and multi-branch response roles and responsibilities, and assessing and using fire and life-safety systems. Pass/No Pass only.

FIRE 1162 Incident Management of the Fire Fighter Emergency

Units: 0.75

Hours: 9 hours LEC; 15 hours LAB

Prerequisite: FIRE 1133 with a grade of "C" or better

Enrollment Limitation: Completion of Incident Command System (I-200), which is an online course offered by Federal Emergency Management Agency (FEMA).

This course provides incident management terminology and methodology that is employed during a fire fighter emergency. Topics include functions of command, critical incident factors, warning signs of a Rapid Intervention Crew (RIC) deployment, duties of the RIC, command procedures of the emergency, and post deployment considerations. Pass/No Pass only.

FIRE 1221 Fire Prevention 1B

Units: 2

Hours: 40 hours LEC

Prerequisite: None.

This course focuses on specific codes, ordinances and statutes that pertain to fire prevention practices in California. Topics include building construction, occupancy requirements, evacuation procedures, fire hazards, safety devices, inspection reports, fire detection and alarm systems. Credit/No Credit Only.

FIRE 1222 Fire Prevention 1C

Units: 2

Hours: 40 hours LEC

Prerequisite: None.

This course focuses on the special hazards associated with flammable and combustible liquids and gases. Topics of discussion include bulk flammable liquid and gas storage, extinguishing flammable liquid and gas fires, and transportation of flammable liquids and gases. Credit/No Credit Only.

FIRE 1500 Firefighter Academy

Units: 11 - 15

Hours: 125.75 hours LEC; 218.25 - 436.25 hours LAB

Prerequisite: None.

Enrollment Limitation: Public Safety First Aid and CPR per California Health and Safety code 1797.182 or equivalent

This course provides the knowledge necessary to assume the role of firefighter with the ability to work effectively and safely within a fire agency. Topics include indoctrination into the fire service, firefighter health and safety, self-contained breathing apparatus (SCBA), emergency scene operations, ropes and knots, hand and power tools, building construction and related hazards, fire behavior, fire hose use and maintenance, ground ladder operations, forcible entry, structural search and rescue operations, structural firefighting operations, ventilation techniques, overhaul, firefighter survival, wildland firefighting techniques, tools and equipment, hazardous materials, and weapons of mass destruction.
This course was formerly listed as FIRE 1090 prior to September 2010. Pass/No Pass only.

FIRE 1503 Firefighter Intern Recruit Academy

Units: 12 - 12.5

Hours: 130 hours LEC; 270 - 290 hours LAB

Prerequisite: None.

Enrollment Limitation: Completion of a firefighter intern certificate.

This course is a continuation of the firefighter intern program. It provides the techniques and skills to work effectively and safely within the fire environment as well as the fire department. Topics include indoctrination into the fire service, general maintenance, apparatus and equipment operations, fire control, wildland firefighting, emergency vehicle operations, salvage, fire prevention and public education, fire and arson investigation, rapid intervention crew tactics, vehicle extrication, physical fitness/wellness, emergency care, and forcible entry. This course was formerly listed as SMFD 1121 prior to November 2010. Pass/No Pass Only.

FIRE 1504 CDF Firefighter 1 Basic

Units: 3

Hours: 48 hours LEC; 18 hours LAB

Prerequisite: None.

This course provides basic knowledge, skills, and demonstrated abilities as required to perform as a California Department of Forestry (CDF) Firefighter 1 Basic. Topics include fire physics and vegetation terminology, personal protective gear, self-contained breathing apparatus, ground ladders, firefighting equipment, fire shelters, wildland hose-lays, structural firefighting, and safety procedures. This course was formerly listed as FIRE 1096 prior to October 2010. Pass/No Pass only.

FIRE 1506 Transitional Fire Academy

Units: 11.5 - 13.5

Hours: 140 hours LEC; 205 - 300 hours LAB

Prerequisite: None.

Enrollment Limitation: Acceptance into the transitional firefighter academy AND successful completion of a California State Fire Training accredited fire academy or lateral transfer from a full-time career fire department

This course provides the knowledge necessary to assume the role of firefighter with the ability to work effectively and safely with the fire environment as well as within a company in the fire department in all functions of that urban fire agency. Topics include indoctrination into a particular fire department, general maintenance, apparatus and equipment operations, fire control, wildland firefighting, emergency vehicle operations, salvage, fire prevention and public education, fire and arson investigation, rapid intervention crew tactics, vehicle extrication, physical fitness/wellness, emergency care, and forcible entry. Pass/No Pass only.

FIRE 1507 Firefighter II Academy

Units: 3.5

Hours: 42 hours LEC; 70 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FIRE 1507) the student must be an employee of a state or local fire agency and a Certified Fire Fighter I.

This course provides the skills and knowledge needed for the entry-level professional fire fighter to perform one's duties safely, effectively, and competently. Topics include fire department communications, fireground operations, rescue operations, and prevention, preparedness, and maintenance. Pass/No Pass only.

FIRE 1509 Advanced Fire Fighter Academy

Units: 14 - 28

Hours: 186 - 248.25 hours LEC; 246.25 - 801.75 hours LAB

Prerequisite: None.

Corequisite: Students must successfully complete the FEMA independent study courses IS-100, IS-200, IS-700, and IS-800 prior to the instruction of Topic: Operating within the Incident Command System.

Enrollment Limitation: The student must meet other Academy requirements including but not limited to; drug screening, background check, physical, physical ability test, and possession of a valid California driver's license and have Public Safety First Aid or higher qualification and CPR healthcare provider certification or equivalent.

This course provides the knowledge necessary to assume the role of fire fighter with the ability to work effectively and safely within a fire agency. Topics include indoctrination into the fire service, fire fighter health and safety, self-contained breathing apparatus (SCBA), emergency scene operations, ropes and knots, hand and power tools, building construction and related hazards, fire behavior, fire hose use and maintenance, ground ladder operations, forcible entry, structural search and rescue operations, structural firefighting operations, ventilation techniques, overhaul, fire fighter survival, wildland firefighting techniques, tools and equipment, hazardous materials, and weapons of mass destruction. Pass/No Pass only.

FIRE 1510 Fire Service EMS Academy

Units: 7 - 11

Hours: 96 - 136 hours LEC; 120 - 240 hours LAB

Prerequisite: The student must have a current Emergency Medical Technician or Paramedic certificate issued by an accredited Local EMS Authority OR a current National Registry of Emergency Medical Technician's certificate indicating the level of training that has been successfully completed.

Corequisite: Students must successfully complete the FEMA independent study courses IS-100, IS-200, IS-700, and IS-800.

Enrollment Limitation: The student must meet other Academy requirements including but not limited to: drug screening, background check, physical, and possession of a valid California driver's license. The background check may include, but is not limited to: criminal history including sexual offender status, credit background check, social media and internet check, Department of Motor Vehicle Check, Professional License/Certificate confirmation, and Social Security Number Trace.

This course provides the knowledge necessary to assume the role of a Fire Service Emergency Medical Services (EMS) worker with the ability to work effectively and safely within a fire agency. Topics include introduction to the fire service, health and safety, personal protective equipment (PPE), emergency scene operations, ambulance apparatus operations, basic and advanced life support (BLS/ALS), emergency medical protocols, medical assistance to firefighting operations, medical assistance to hazardous materials operations, emergency vehicle operations, confined space awareness, lifelong physical fitness and behavioral health and wellness. Pass/No Pass only.

FIRE 1520 Fire Apparatus Driver/ Operator 1A - Pumping Apparatus

Units: 1.25

Hours: 19.5 hours LEC; 20.5 hours LAB

Prerequisite: None.

Enrollment Limitation: Valid Class C California Driver's License.

This course provides information on fire apparatus preventive maintenance and driving/operating. Topics include routine tests, inspections, and servicing functions, operate, reverse, maneuver, and turn a fire apparatus in a variety of conditions, and operate all fixed systems and equipment on a fire apparatus. This course was formerly listed as FIRE 1260 prior to October 2010. Pass/No Pass only.

FIRE 1521 Fire Apparatus Driver/Operator 1B - Pumping Apparatus Operations

Units: 1.25

Hours: 18 hours LEC; 22 hours LAB

Prerequisite: FIRE 1520

Enrollment Limitation: Hold a valid Class C Firefighter Endorsed driver’s license (minimum).

This course provides information on pumping apparatus preventive maintenance and operations. Topics include routine tests, inspections, and servicing functions, producing hand, master, and foam fire streams, relay pump operations, and supplying water to fire sprinkler and standpipe systems. This course was formerly listed as FIRE 1261 prior to October 2010. Pass/No Pass only.

FIRE 1522 Fire Apparatus Engineer Refresher

Units: 1.5

Hours: 20 hours LEC; 21 hours LAB

Prerequisite: None.

Enrollment Limitation: Must be in the position of Fire Engineer or above.

This course provides updates, enhancements, and refreshes the skills required by the fire apparatus engineer. Topics include wildland firefighting, arson identification, structural firefighting, incident command, strategy and tactics on initial attack incidents, supervision, management and company officer skills. This course was formerly listed as FIRE 1010 prior to October 2010. Pass/No Pass only.

FIRE 1523 Emergency Vehicle Operator - Phase I

Units: 0.25

Hours: 2 hours LEC; 7 hours LAB

Prerequisite: None.

Enrollment Limitation: Completion of a State of California Fire Marshal approved Firefighter 1 academy.

This course is the first phase of operating the emergency vehicle for fire personnel. The course includes skid pan exercises and vehicle driving exercises. This course was formerly listed as SMFD & SFD 1041 prior to October 2010. Pass/No Pass Only.

FIRE 1524 Emergency Vehicle Operator - Phase II

Units: 0.25

Hours: 2 hours LEC; 7 hours LAB

Prerequisite: None.

This course is a continuation of Driver Emergency Vehicle Operator Phase I training techniques. It includes vehicle placement, steering basics, acceleration, and braking. This course was formerly listed as SMFD & SFD 1042 prior to October 2010. Pass/No Pass Only.

FIRE 1525 Emergency Vehicle Operator: Fire

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course is a continuation of Emergency Vehicle Operator - Phase II training techniques. It includes apparatus inspection, safety, code 3 driving, and special considerations. This course was formerly listed as SMFD & SFD 1043 prior to October 2010. Pass/No Pass Only.

FIRE 1526 Fire Apparatus Driver/Operator - Aerial Apparatus

Units: 1.5

Hours: 23 hours LEC; 17 hours LAB

Prerequisite: FIRE 1500 and 1520

Enrollment Limitation: Hold a valid Class C Firefighter Endorsed driver's license (minimum).

This course provides information on aerial apparatus preventive maintenance and operations. Topics include routine tests, inspections, and servicing functions on the systems and components unique to an aerial apparatus, maneuvering, positioning, and stabilizing an aerial apparatus; maneuvering, positioning, and lowering the aerial device; and deploying and operating an elevated master stream. Pass/No Pass only.

FIRE 1527 Fire Apparatus Driver/Operator - Tillered Apparatus

Units: 1

Hours: 13 hours LEC; 27 hours LAB

Prerequisite: FIRE 1500 and 1521

Enrollment Limitation: Hold a valid Class C Firefighter Endorsed driver's license (minimum).

This course provides information on operating a fire department aerial apparatus equipped with a tiller. Topics include practical driving exercises, and operating, positioning and stabilizing the apparatus from both the tractor and tiller positions. Pass/No Pass only.

FIRE 1528 Fire Apparatus Driver/Operator - Water Tender

Units: 0.75

Hours: 7.5 hours LEC; 24.5 hours LAB

Prerequisite: FIRE 1500, 1520, and 1521

Enrollment Limitation: Hold a valid Class C Firefighter Endorsed driver's license (minimum).

This course provides information on water tender preventive maintenance and operations. Topics include routine tests, inspections, and servicing functions unique to a water tender, maneuvering and positioning a water tender at a water shuttle fill site and establishing, maneuvering, and positioning at a water shuttle dumpsite. Pass/No Pass only.

FIRE 1529 Fire Apparatus Driver/Operator - Wildland Fire Apparatus

Units: 0.5

Hours: 5 hours LEC; 19 hours LAB

Prerequisite: FIRE 1500, 1520, and 1521

Enrollment Limitation: Hold a valid Class C Firefighter Endorsed driver's license (minimum).

This course provides information on preventive maintenance and operation of a wildland fire apparatus. Topics include routine tests, inspections, and servicing functions on the systems and components unique to wildland fire apparatus, and operating a wildland fire apparatus and producing an effective fire stream. Pass/No Pass only.

FIRE 1554 Communicable Disease Awareness

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

Enrollment Limitation: Currently certified as a California EMT-1

This course provides emergency responders with communicable disease awareness. Topics include identification, recognition, communicability, prevention, and the operation of communicable diseases. This course was formerly listed as FIRE 1116 prior to November 2010. Pass/No Pass only.

FIRE 1600 Hazmat First Responder Operational

Units: 1.5

Hours: 23.5 hours LEC; 16.5 hours LAB

Prerequisite: None.

This course provides the awareness skills and knowledge needed for the entry-level fire fighter to recognize and identify hazardous materials (Hazmat) and weapons of mass destruction (WMD), isolate hazards and deny entry, and initiate required notification. At the operations level, this course provides the skills and knowledge needed to identify incident scope; select, use and inspection of personal protective equipment (PPE); perform emergency decontamination; perform assigned tasks at a Hazmat/WMD incident including product control techniques; and evaluate and report incident progress.

FIRE 1601 Hazardous Materials First Responder Operational Refresher

Units: 0.25

Hours: 6 hours LEC; 3 hours LAB

Prerequisite: FIRE 1600

This course is a refresher covering the basic strategies involving potential exposure to hazardous materials. Topics include detecting hazardous material substances, consulting references for information, and implementing operational procedures. May be taken one time for credit. This course was formerly listed as CDF 1085 prior to April 2011. Pass/No Pass Only.

FIRE 1602 Hazardous Materials Incident Commander

Units: 0.5

Hours: 10 hours LEC; 6 hours LAB

Prerequisite: FIRE 1600; Proof of completion of FEMA Incident Command System (ICS) 100

This course provides the content related to the role of an Incident Commander (IC), during a hazardous material (hazmat) event, with the emphasis on personnel safety and management. Topics include hazmat laws and regulations, command and scene management, operational risk management, and protective actions. This course was formerly listed as CDF, FJPA, SFD, SMFD, and USDA 1091 prior to April 2011. Pass/No Pass Only.

FIRE 1610 Hazardous Materials Technician: Module 1A: Basic Chemistry

Units: 2

Hours: 40 hours LEC

Prerequisite: FIRE 1600

This course provides the student with the most essential and basic aspects of chemistry and physics as they relate to successful hazardous materials incident management. Topics include basic terminology and theory of chemistry, overview of the identification and hazards of salts, hydrocarbons, and other non-salts and, most importantly, provides the student with the skills required to recognize the hazard and behavior of a material given only its chemical identification or formula. It meets standards prescribed by the CA State Fire Marshal and Office of Emergency Services. Pass/No Pass only.

FIRE 1611 Hazardous Materials Technician: Module 1B: Applied Chemistry

Units: 1.25

Hours: 20.25 hours LEC; 19.75 hours LAB

Prerequisite: FIRE 1610

This course provides the student with basic terminology and theory of chemistry as it relates to hazardous materials. Topics include chemical aspects of the hazard classes, toxicology, including hazard and risk assessment, function and use of detection instruments, monitoring hazardous atmospheres, and use of a field identification kit to identify unknown solids and liquids. It meets standards prescribed by the CA State Fire Marshal and Office of Emergency Services. Pass/No Pass only.

FIRE 1612 Hazardous Materials Technician: Module 1C: Incident Considerations

Units: 1.25

Hours: 18.5 hours LEC; 21.5 hours LAB

Prerequisite: None.

This course provides the student with on-scene incident considerations. Topics include data research, meteorological considerations, protective actions, personal protective equipment, incident command aspects, site safety concepts, legislative and regulatory measures influencing emergency response, and contingency planning. It meets standards prescribed by the CA State Fire Marshal and Office of Emergency Services. Pass/No Pass only.

FIRE 1613 Hazardous Materials Technician: Module 1D: Tactical Field Operations

Units: 1.25

Hours: 20 hours LEC; 20 hours LAB

Prerequisite: FIRE 1612

This course provides the student with experience in hazardous materials tactical field operations. Topics include confinement, control, hazmat triage and sabotage, performing in chemical protective clothing, preservation of evidence, decontamination, and emergency medical system considerations. It meets standards prescribed by the CA State Fire Marshal and Office of Emergency Services. Pass/No Pass only.

FIRE 1614 Hazardous Materials Specialist Module 1F: Special Mitigation Techniques

Units: 1.75

Hours: 28 hours LEC; 12 hours LAB

Prerequisite: FIRE 1613

This course is an introduction to mitigation techniques. Topics include plugging, patching and repairing methods, advanced chemical field identification testing procedures, and fixed facility repair considerations. t is part one of a two part series (including FIRE 1615) leading to certification as a Hazardous Materials Specialist. It meets requirements of CA Code of Regulations Title 8, Section 519(q). Pass/No Pass only.

FIRE 1615 Hazardous Materials Specialist Module 1G: Advanced Field Operations

Units: 0.75

Hours: 2 hours LEC; 38 hours LAB

Prerequisite: FIRE 1614

This course covers material presented in Hazardous Materials Courses 1A-1F in an environment of scenario based full scale exercises. Students are evaluated on their ability to perform and be certified as a member of a Hazardous Materials Team. Pass/No Pass only.

FIRE 1621 Incident Command System (I-200)

Units: 0.5

Hours: 16 hours LEC

Prerequisite: None.

This class introduces the basic components of the Incident Command System (ICS) used to manage all types of emergency incidents. This management system includes common structure, responsibilities and terminology used on incidents at the local, state, and federal levels. Pass/No Pass only.

FIRE 1628 High Rise Incident Management - Basic Organization

Units: 0.25

Hours: 3.5 hours LEC; 3 hours LAB

Prerequisite: None.

This course provides the content related to management of major high rise fire incidents. The content is based on curricula established at the National Fire Academy and Firefighting Resources of Southern California Organized for Potential Emergencies (FIRESCOPE), program. This course was formerly listed as FIRE 1078 prior to April 2011. Pass/No Pass only.

FIRE 1631 Incident Management

Units: 1

Hours: 20 hours LEC; 4 hours LAB

Prerequisite: None.

Enrollment Limitation: Completion of a State of California Fire Marshal approved Firefighter 1 academy.

This course provides an in-depth look into the various areas of commanding an initial attack. Topics include command presence, transfer of command, tactics and strategy, and size-up. This course was formerly listed as CDF, FJPA, SFD, and SMFD 1092 prior to April 2011. Pass/No Pass Only.

FIRE 1653 Instructor I: Instructional Methodology

Units: 1.25

Hours: 16.5 hours LEC; 23.5 hours LAB

Prerequisite: None.

This course introduces the skills and knowledge needed for the entry-level professional instructor to perform his or her duties safely, effectively, and competently. At the end of this course, candidates for certification will be able to teach and deliver instruction from a prepared lesson plan utilizing instructional aids and evaluation instruments. The Instructor will also be able to adapt a lesson plan and complete the reporting requirements to the local jurisdiction. Topics include instructional development, instructional delivery, evaluation and testing, and program management. Pass/No Pass only.

FIRE 1654 Instructor II: Instructional Development

Units: 1.25

Hours: 14.25 hours LEC; 25.75 hours LAB

Prerequisite: FIRE 1653 with a grade of "C" or better

This course introduces the skills and knowledge needed for the intermediate level professional instructor to perform his or her duties safely, effectively, and competently. Topics include developing lesson plans and evaluation instruments, teaching and delivering instruction, evaluating and coaching other instructors, analyzing resources, and formulating a program budget. Pass/No Pass only.

FIRE 1655 Instructor III: Instructional Program Management

Units: 1.5

Hours: 26.75 hours LEC; 9.25 hours LAB

Prerequisite: FIRE 1653 and 1654 with grades of "C" or better

This course introduces information on planning, developing, and implementing comprehensive programs and curricula. Topics include instructional development, program management, program and instructor evaluation, and test reliability and validity. Pass/No Pass only.

FIRE 1656 Regional Instructor Orientation

Units: 0.25

Hours: 3.5 hours LEC; 0.5 hours LAB

Prerequisite: None.

This course is designed to provide instructors who will deliver State Fire Training (SFT) training programs with an overview of State Fire Training, California Fire Service Training and Education System (CFSTES) and Fire Service Training and Education Program (FSTEP) programs. Topics include instructor registration requirements, instructor responsibilities and accountability, how to schedule and return courses, and the SFT Procedures Manual.

FIRE 1657 Ethical Leadership for Instructors

Units: 0.25

Hours: 3.75 hours LEC; 4.25 hours LAB

Prerequisite: None.

This course provides the knowledge and skills needed to identify the value of ethical behavior in instructional settings. It describes how ethical norms influence individual ethics. Topics include identifying personal ethical perspectives and core values, and how they impact communication and ethical decision making. How to make an ethical decision using an ethical decision-making model to assist in making ethical decisions when faced with an ethical dilemma. It also covers how to carry out the roles and responsibilities of a California State Fire Training (SFT) instructor in an ethical manner.

FIRE 1670 Fire Investigation 1A, Fire Cause and Origin Determination

Units: 2

Hours: 40 hours LEC

Prerequisite: None.

This course provides participants with an introduction and basic overview of fire scene investigation. The focus of this course is to provide information in determining the area of fire origin in fires involving vehicles, structures, and wildland. Accidental and criminal fire causes are discussed in detail. This course was formerly listed as FIRE 1240 prior to September 2010. Pass/No Pass only.

FIRE 1671 Fire Investigation 1B, Techniques of Fire Investigation

Units: 2

Hours: 40 hours LEC

Prerequisite: FIRE 1670

This course expands on specific topics encountered by the fire investigator. These topics include detailed information on motives of fire setters; conducting a post blast scene; the investigation of a fire death; the recognition, collection, and preservation of evidence; interviewing and interrogation of witnesses and suspects; and the effect of a building's construction on the spread of fire. This course was formerly listed as FIRE 1241 prior to September 2010. Pass/No Pass only.

FIRE 1672 Fire Investigation 2A

Units: 2

Hours: 40 hours LEC

Prerequisite: FIRE 1671

This course provides information on how to investigate, apprehend, and convict arsonists. It focuses heavily on legal case preparation. Topics include interviewing and interrogating suspects, search and seizure, warrants, courtroom demeanor, and working with the district attorney's office. This course was formerly listed as FIRE 1242 prior to September 2010. Pass/No Pass only.

FIRE 1673 Fire Investigation 2B

Units: 2

Hours: 40 hours LEC

Prerequisite: FIRE 1672

This course provides advanced instruction in fire scene investigation, case preparation, and courtroom presentation. Topics include reviewing fire scene photography, sketching, evidence collection, interviewing and interrogation, and extensive use of simulations for developing and presenting an arson case in court. This course was formerly listed as FIRE 1243 prior to September 2010. Pass/No Pass only.

FIRE 1674 Fire Investigator 1A: Basic Fire Investigation

Units: 1.75

Hours: 29 hours LEC; 11 hours LAB

Prerequisite: FT 304 with a grade of "C" or better

Enrollment Limitation: On-line courses: Basic Electricity (CFITrainer.net), and Ethics and the Fire Investigator (CFITrainer.net)

This course provides information on securing the fire scene and determining the origin and cause of the fire. Topics include responsibilities of a fire investigator, securing the fire ground, conducting an exterior and interior survey, analyzing fire patterns, interpreting individual fire patterns, discriminating the effects of explosions, examining and removing fire debris, reconstructing the area of origin, inspecting the performance of building systems. Pass/No Pass only.

FIRE 1675 Fire Investigator 1B: Evidence and Documentation

Units: 1.5

Hours: 24 hours LEC; 10 hours LAB

Prerequisite: FIRE 1674

Enrollment Limitation: On-line course: Introduction to Evidence (CFITrainer.net)

This course provides information on scene documentation and evidence collection/preservation. Topics include photographing the scene, diagramming the scene, constructing investigative notes, processing evidence and establishing chain of custody, processing victims and fatalities, selecting evidence for analysis, maintaining a chain of custody, preparing a fire investigation report, and disposing of evidence. Pass/No Pass only.

FIRE 1676 Fire Investigator 1C: Preparation for Legal Proceedings

Units: 1.25

Hours: 19 hours LEC; 21 hours LAB

Prerequisite: FIRE 1674, FIRE 1675, and PSTC 1501

Enrollment Limitation: On-line course: Motive, Means, and Opportunity: Determining Responsibility in an Arson Case (CFITrainer.net)

This course provides information on legal considerations for a court proceeding. Topics include coordinating expert resources, formulating an opinion, presenting investigative findings, and testifying during legal proceedings. Pass/No Pass only.

FIRE 1682 Interagency Incident Business Management (S-260)

Units: 0.75

Hours: 16 hours LEC

Prerequisite: None.

This course provides the foundation of incident business management practices. Topics include property management, recruitment, acquisition, and accident investigation. Pass/No Pass only.

FIRE 1703 Basic Wildland Fire Prevention

Units: 1

Hours: 24 hours LEC

Prerequisite: None.

This course provides the basic methods and practices used in wildland fire prevention. Topics include fire prevention history, campfire safety, powerline safety and fire investigation. This course was formerly listed as USDA 1107 prior to April 2011. Pass/No Pass Only.

FIRE 1704 Fire Inspector 1A: Duties and Administration

Units: 1.25

Hours: 24 hours LEC

Prerequisite: None.

This is the first course of a four-course series that is required for employment within the field of Fire Prevention. It covers basic knowledge of the roles and responsibilities of a Fire Inspector 1 including legal responsibilities and authority, codes and standards, the inspection process, confidentiality and privacy requirements, and ethical conduct. Administrative tasks including preparing inspection reports, recognizing the need for a permit or plan review, investigating common complaints, and participating in legal proceedings are also covered. Pass/No Pass Only.

FIRE 1705 Fire Inspector 1B: Fire and Life Safety

Units: 1.25

Hours: 24 hours LEC

Prerequisite: FIRE 1704 and 1704 with grades of "C" or better

This is the second course of a four-courses series that is required for employment within the field of Fire Prevention. It covers basic knowledge of fire and life safety aspects related to the roles and responsibilities of a Fire Inspector 1 including building construction, occupancy classifications, occupancy load, means of egress, hazardous conditions, fire growth potential, fire flow, and emergency planning and preparedness measures. Pass/No Pass Only.

FIRE 1706 Fire Inspector 1C: Field Inspection

Units: 1.25

Hours: 24 hours LEC

Prerequisite: FIRE 1704 and 1704

This is the third course of a four-course series that is required for employment within the field of Fire Prevention. It covers basic knowledge of field inspection roles and responsibilities of a Fire Inspector 1 including basic plan review, emergency access for an existing system, hazardous materials, and the operational readiness of fixed fire suppression systems, existing fire detection and alarm systems, and portable fire extinguishers. Pass/No Pass Only.

FIRE 1707 Fire Inspector 1D: California Specific

Units: 0.75

Hours: 16 hours LEC

Prerequisite: FIRE 1704 and 1704

This is the last course of a four-course series that is required for employment within the field of Fire Prevention. It covers basic knowledge of a Fire Fighter 1's field inspection roles and responsibilities specific to California including tents, canopies, and temporary membrane structures; fireworks and explosives; and wildland urban interface environments. Pass/No Pass Only.

FIRE 1722 Division/Group Supervisor (S-339)

Units: 1

Hours: 24 hours LEC

Prerequisite: None.

This course provides the knowledge and skills to perform specific responsibilities as a Division/Group Supervisor within the Incident Command System. Topics include pre-incident

responsibilities, incident arrival and check-in, assigned and available status, and out-of service status and demobilization. This course was formerly listed as CDF,EGFD,FJPA,SMFD,and USDA 1086 prior to April 2011. Pass/No Pass Only.

FIRE 1723 Professional Training for Fire Service Personnel

Units: 3 - 10

Hours: 40 - 119 hours LEC; 42 - 184 hours LAB

Prerequisite: None.

Enrollment Limitation: Completion of a State of California Fire Marshal approved Firefighter 1 academy

This course provides current knowledge and techniques needed to maintain and improve fire service skills. It meets mandatory state and local training requirements. Topics may include fire service administration, suppression, emergency medical services, fire prevention, wellness and fitness, rescue, leadership/management, and command and control. This course was formerly listed as SFD and SMFD 1104 prior to April 2011. Pass/No Pass Only.

FIRE 1760 Low-Angle Rope Rescue Operational (LARRO)

Units: 0.5

Hours: 7 hours LEC; 17 hours LAB

Prerequisite: None.

This course provides the techniques and methods for using rope, webbing, hardware friction devices, and litters in low-angle rescue situations. Topics include rope and related equipment, anchor systems, safety lines, stretcher lashing and rigging, mechanical advantage systems, and single-line and two-line rescue systems. Pass/No Pass only.

FIRE 1761 Rescue Systems 1: Basic Rescue Skills

Units: 1

Hours: 9 hours LEC; 31 hours LAB

Prerequisite: FIRE 1500 and 1760

This course provides rescue professionals with the level of knowledge to perform urban search and rescues. Topics include team organization, rescue, and environmental considerations, use of ropes, knots rigging and pulley systems, descending, rappelling, and belaying tools and techniques, subsurface rescue techniques, use of cribbing, wedges, cutting/prying and hydraulic tools, use of fire service ladders in specialized rescue situations, and day and night simulated rescue exercises. Pass/No Pass only.

FIRE 1762 Aircraft Rescue and Firefighting (FC 5)

Units: 1

Hours: 19 hours LEC; 5 hours LAB

Prerequisite: None.

Advisory: FIRE 1500

This course provides the knowledge to operate safely during an aircraft emergency. This course identifies types of aircraft, aviation fuels, proper extinguishing agents, and airport communication systems used in aircraft emergencies. This course was formerly listed as CDF, FJPA, SFD, SMFD, USDA, and FIRE 1062 prior to April 2011. Pass/No Pass only.

FIRE 1763 Open Water Rescue Boat Operator - Small Vessel

Units: 0.5

Hours: 8 hours LEC; 24 hours LAB

Prerequisite: It is recommended that students have completed the OSFM Open Water Rescuer - Basic (or equivalent) course prior to taking this course. If students have not taken Open Water Rescuer - Basic, it is recommended that they have completed the requirements of the Authority Having Jurisdiction (AHJ) swim test that meets or exceeds the International Association of Dive Rescue Specialists (IADRS) Annual Watermanship Test.

Advisory: Students must be able to swim to perform open water rescues successfully.

This course provides classroom instruction and practical application to develop competency for open water rescue boat operations. The course is designed specifically for open water environments and is not appropriate for environments with river and flood or surf environments. Upon completion, the student will be capable of operating small rescue boats (recommended length up to 18 feet or operational equivalent). Pass/No Pass only.

FIRE 1764 Personal Watercraft Operations

Units: 0.5

Hours: 4 hours LEC; 12 hours LAB

Prerequisite: None.

Advisory: Ability to swim.

This course provides the knowledge and skills necessary to operate personal watercraft on water related incidents. Subjects learned are the reading of water movement and the tactics/strategies for operating personal water craft. Not open

to students who have completed CDF 1063, Rescue Water Craft. This course was formerly listed as CDF,SFD, and SMFD 1061 prior to April 2011. Pass/No Pass Only.

FIRE 1766 River and Flood Water Rescue

Units: 0.5

Hours: 5 hours LEC; 11 hours LAB

Prerequisite: None.

This course is intended for the training of fire service personnel in water rescue techniques. Topics include swift water rescue, submerged vehicles, drowning, use of engine/truck company equipment for water rescue, use of rafts and boats, and underwater search and recovery. This course was formerly listed as FIRE 1079 prior to April 2011. Pass/No Pass only.

FIRE 1768 Common Passenger Vehicle Rescue Technician

Units: 0.5

Hours: 6.75 hours LEC; 17.75 hours LAB

Prerequisite: FIRE 1500; IS-100, IS-200, IS-800 (FEMA Online), Public Safety First Aid and CPR (CA Health and Safety Code 1979.182)

This course provides the knowledge and skills to prepare a firefighter to extricate victim(s) from a common passenger vehicle in a safe and effective manner in accordance with established policies and procedures. Topics include sizing up a vehicle incident, scene safety zones, fire protection, stabilizing a common passenger vehicle, isolating and managing energy sources, access and egress points, disentangling victims, removing victims, and terminating a vehicle incident. Pass/No Pass only.

FIRE 1769 Trench Rescue Technician

Units: 0.75

Hours: 10 hours LEC; 14 hours LAB

Prerequisite: FIRE 1761

This course transitions students from classroom discussion to working safely and efficiently in a trench rescue environment. Topics include trench and excavation regulations, understanding soil, trench configurations, trench hazards, rescue team preparation, incident response, initial on-scene and pre-entry operations, shoring systems and components, installation of shoring systems, victim rescue and recovery, and incident termination. Pass/No Pass only.

FIRE 1800 Firefighter Training (S-130)

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

This course provides new firefighters with basic wildland firefighting skills. It also provides the knowledge needed to identify basic weather conditions and topography, as well as fuels and their effect on fire behavior. Pass/No Pass only.

FIRE 1801 Fire Fighter Survival

Units: 0.25

Hours: 5.25 hours LEC; 10.75 hours LAB

Prerequisite: Fire Ground Survival Awareness (IAFF – online / Must be completed within 90 days of SFT course start date.)

This hands-on course provides the knowledge and skills needed to minimize errors on the fire ground and reduce fire fighter injuries and fatalities including calling Mayday; Self-Contained Breathing Apparatus (SCBA) and air management; and navigation, disentanglement, wall breach, anchoring, window hang, ladder escape, and above and below grade survival techniques. Pass/No Pass only.

FIRE 1803 Rapid Intervention Crew Operations

Units: 0.5

Hours: 5.5 hours LEC; 26.5 hours LAB

Prerequisite: FIRE 1500 and 1801; The Fire Ground Survival Awareness (IAFF online course) component of this course must be completed within three years prior to the Fire Fighter Rescue and Rescue Intervention Crew (RIC) Operations course start date.

This hands-on course provides the knowledge and skills needed to perform fire fighter rescue to reduce fire fighter injuries and deaths. Topics include the fire fighter rescue mindset; size up, tool assembly, and softening the structure; search, assessment, air delivery, and rescue; and Rapid Intervention Crew (RIC) roles, responsibilities, strategies, and operations. Pass/No Pass only.

FIRE 1804 Confined Space Awareness

Units: 0.25

Hours: 6 hours LEC; 2 hours LAB

Prerequisite: None.

This course provides instruction in identifying a permit and non-permit required confined space, the hazards associated with confined spaces, state regulations and industry standards, incident management, communications, and equipment requirements. It does not qualify participants to make permit-

required entries. Topics include regulations and standards, dangers of confined space incidents, permit-required confined spaces, hazards, resources needed, tactical worksheets, communications, nonentry rescue, and incident command. This course was formerly listed as CDF 1081 prior to April 2011. Pass/No Pass only.

FIRE 1805 Wildland Firefighting Skills

Units: 1.75

Hours: 26 hours LEC; 20 hours LAB

Prerequisite: None.

This course provides the necessary information required in wildland firefighting to safely operate in emergency conditions. Topics include map/compass and GPS use, radio use, hand tool use, fire shelters, belt weather kits, and human factors. This course was formerly listed as USDA 1109 prior to April 2011. Credit/No Credit only.

FIRE 1806 Confined Space Rescue Technician

Units: 1

Hours: 11 hours LEC; 29 hours LAB

Prerequisite: FIRE 1804

This course is an intensive hands-on training program that will prepare students for confined-space emergencies. Topics include identifying confined spaces and permit-required confined spaces, the hazards associated with permit-required confined spaces, target industries and hazards, state and federal regulations, components of a rescue operation, and the roles and responsibilities of the rescue team. Pass/No Pass only.

FIRE 1807 Advanced Firefighter Training (S-131)

Units: 0.5

Hours: 8 hours LEC

Prerequisite: FIRE 1800

This course provides advanced training in wildland firefighting skills with an emphasis on safety and tactics. This is suggested training for firefighters who wish to become qualified at first level supervisory positions. This course also meets the training requirements for Advanced Firefighter/Squad Boss and Incident Commander Type 5. Pass/No Pass only.

FIRE 1808 Fire Ground Skills: Update

Units: 0.25

Hours: 4 hours LEC; 4 hours LAB

Prerequisite: Completion of a State of California Fire Marshal approved Firefighter 1 academy

This course updates critical knowledge, skills, and abilities employed in emergency conditions. Topics include self-contained breathing apparatus, ground ladders, ropes and knots, apparatus operation, wildland hoselays, and fire shelter deployment and safety. This course was formerly listed as CDF 1048 prior to April 2011. Credit/No Credit only.

FIRE 1809 Wildland Fire Chain Saws (S-212)

Units: 1

Hours: 11 hours LEC; 25 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FIRE 1809) the student must be an employee of a federal fire fighting agency, or a member of a state or local fire agency.

This course is designed for prospective chain saw operators. Topics include introduction to the function, maintenance and use of internal combustion engine powered chain saws, tactical wildland fire applications, and training for firefighters with little or no previous experience in operating a chain saw, providing hands-on cutting experience in surroundings similar to fireline situations. Credit/No Credit only.

FIRE 1860 Physical Fitness for Fire Service Personnel

Units: 0.5 - 4

Hours: 4 - 27 hours LEC; 15 - 137 hours LAB

Prerequisite: None.

This course is a physical fitness course for employed firefighters. It includes fire service wellness initiatives, cardiovascular and muscular fitness, safety and proper usage of exercise equipment, joint flexibility, hydration, nutrition and weight control, cardiac risk factors, and sleep disorders. This course was formerly listed as FITNS 341 prior to April 2011. Pass/No Pass only.

FIRE 1872 Basic Air Operations (S-270)

Units: 0.75

Hours: 16 hours LEC

Prerequisite: None.

This course covers aircraft types and capabilities, aviation management and safety for flying in and working with agency aircraft, tactical and logistical uses of aircraft, and requirements for helicopter take-off and landing areas. Topics

include the types of helicopters and air tankers and the criteria that make up each type. Also included are safe firefighting conduct operations when aircraft are being used. Note: The regulations, procedures and policies addressed in this course are primarily those governing federal agency and Incident Command System (ICS) operations. State, county, or other political subdivisions using this course will need to consult their agency having jurisdiction with respect to regulations, procedures and policies. Pass/No Pass only.

FIRE 1873 Strike Team/Task Force Leader, All-Hazards (STEN/TFLD) (AH-330)

Units: 1.25

Hours: 22 hours LEC; 10 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FIRE 1873) the student must be an employee of a federal fire fighting agency, or a member of a state or local fire agency.

This course provides the skills and knowledge needed to perform in the position of Strike Team/Task Force Leader. Topics include position overview, pre-deployment responsibilities, concept of the position, resource typing standards, pre-dispatch preparation, incident responsibilities, administration, supervision, response, assignment, demobilization, tactics and safety, risk management, entrapment avoidance, Wildland Urban Interface (WUI), case studies, scenarios, and appropriate action vs. freelancing. Pass/No Pass only.

FIRE 1874 Task Force/Strike Team Leader Refresher

Units: 0.25 - 0.5

Hours: 4 - 8 hours LEC

Prerequisite: None.

This course presents the rules and regulations required to operate as a strike team/task force leader on emergency incidents. Additionally, this course explains the many rules and regulations governing strike team leaders' actions. This course was formerly listed as CDF, FJPA, SMFD, and USDA 1075 prior to April 2011. Credit/No Credit only.

FIRE 1875 Fire Operations in the Wildland/Urban Interface (S-215)

Units: 0.25 - 0.75

Hours: 16 hours LEC; 4 - 8 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FIRE 1875) the student must be an employee of a federal fire fighting agency or a member of a state or local fire agency.

This course is designed for the firefighter operating as incident commander in areas where urban growth and expansion interfaces with the wildland. Topics include firefighter safety in the interface, managing human factors in the interface, pre-incident planning, size-up and initial strategy, structure triage, structure protection overview, tactics in the interface, tactical operations and resource use in the interface, action assessment, plans updates, and after action review. This course was formerly listed as FIRE 1073 prior to April 2011. Pass/No Pass only.

FIRE 1880 Field Observer/Display Processor (S-244/S-245)

Units: 1.5

Hours: 28 hours LEC; 8 hours LAB

Prerequisite: Successful completion of S-290, Intermediate Wildland Fire Behavior; successful completion of pre-course work; basic understanding of how to use a GPS receiver; and FOBS: Qualified as any single resource boss OR FEMO: completed SFT Firefighter 1 training.

This course provides the techniques, theory, and practical experience to be a field observer/display processor in the Incident Command System Planning Section. Topics include identifying and interpreting maps, making map calculations, using observation aids, mapping from aircraft, making field observations, and processing and displaying data. Credit/No Credit only.

FIRE 1881 Helicopter Training (S217)

Units: 1.5

Hours: 26 hours LEC; 14 hours LAB

Prerequisite: FT 55 (SMFD 1055) and FT 52 (SMFD 1052)

This course provides an understanding of basic helicopter operations and their use on wildland firefighting incidents. This course includes aircraft terminology, helicopter support systems and helicopter tactics used in their operation. This course was formerly listed as FIRE 1070 prior to April 2011. Credit/No Credit only.

FIRE 1882 Ignition Operations (S-234)

Units: 1

Hours: 16 hours LEC; 8 hours LAB

Prerequisite: None.

This course presents the functions of an Ignition Specialist or Firing-Boss on emergency incidents. It includes backfire and burnout safety training and the proper application of fire suppression firing methods and practices. This course was formerly listed as FIRE 1094 prior to April 2011. Pass/No Pass only.

FIRE 1883 Chainsaw Bench

Units: 0.5

Hours: 9 hours LEC

Prerequisite: None.

This course covers basic chainsaw field mechanics and troubleshooting. Topics include chainsaw components, attachments, adjustments, problems, and maintenance. This course was CDF, FJPA, and USDA 1083 prior to September 2011. Pass/No Pass only.

FIRE 1884 Crew Boss (Single Resource) (Blended) (S-230)

Units: 0.25

Hours: 8 hours LEC

Prerequisite: FFS 1541 with a grade of "C" or better

Enrollment Limitation: To enroll in this course (FIRE 1884) the student must be an employee of a federal fire fighting agency, or a member of a state or local fire agency.

This course covers the performance of duties associated with the single resource boss position from initial dispatch through demobilization to the home unit. Topics include operational leadership, preparation and mobilization, assignment preparation, risk management, entrapment avoidance, safety and tactics, offline duties, demobilization, and post incident responsibilities. Pass/No Pass only.

FIRE 1885 Firing Operations (S-219)

Units: 1

Hours: 16 hours LEC; 8 hours LAB

Prerequisite: None.

Enrollment Limitation: To enroll in this course (FIRE 1885) the student must be an employee of a federal fire fighting agency, or a member of a state or local fire agency.

This course utilities a blended approach to learning, incorporating a mix of online and instructor-led training (ILT). Students complete the online training portion of the course prior to taking the ILT. Topics include the roles and responsibilities of a Firing Boss (FIRB), outlines duties of other personnel who may engage firing operations, and illustrates common firing devices and techniques. Pass/No Pass only.

FIRE 1886 Engine Boss (Single Resource) (Blended) (S-231)

Units: 0.25

Hours: 3.5 hours LEC; 4.5 hours LAB

Prerequisite: FIRE 1884

Enrollment Limitation: To enroll in this course (FIRE 1886) the student must be an employee of a federal fire fighting agency, or a member of a state or local fire agency.

This course is designed to produce student proficiency in the performance of the duties associated with Engine Boss, single resource (ENGB). Topics include engine and crew capabilities and limitations, information sources, fire size-up considerations, tactics, and wildland/urban interface. Pass/No Pass only.

FIRE 1999 Experimental Offering in Firefighting Training

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Public Safety Training Center (PSTC) Courses

PSTC 1251 Skills and Knowledge Modules

Units: 0.25 - 3

Hours: 4.5 - 44 hours LEC

Prerequisite: PSTC 1683; POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course facilitates the student's acquisition of advanced skills and knowledge necessary for policing and peacekeeping in contemporary society. Course topics are based upon changes in local, state and federal laws, California Commission on Peace Officer Standards and Training (POST) required updates to mandated minimum training for peace officers, and evolving bodies of knowledge in the law enforcement field. Course hours are variable in order to meet specific local and regional needs which may exceed POST minimum requirements. Topics include: arrest methods update, chemical agents update, courtroom testimony, cultural competency, entry techniques update, ethics, field operations and tactics, impact weapons update, investigative report writing update, juvenile law update, legal update, less than lethal force update, officer health and wellness, police-community relations, principled policing, search and seizure update, search warrant writing and service, strategic communication update, tactical firearms update, technology update, and use of force update. Pass/No Pass.

PSTC 1270 Juvenile Corrections Officer Core

Units: 7.5

Hours: 130.5 hours LEC; 37.5 hours LAB

Prerequisite: None.

This course is designed for new juvenile corrections officers and students interested in a career in the juvenile corrections field. It covers the California criminal justice system, professionalism and ethics, defensive tactics, report writing, mental health challenges, gangs, physical conditioning, social justice, cultural awareness, and behavioral health. This course is certified by California Standards and Training for Corrections (STC). It was formerly known as PSTC 1519. Pass/No Pass only.

PSTC 1273 Probation Officer Core Course

Units: 9

Hours: 150 hours LEC; 39 hours LAB

Prerequisite: None.

This course is designed for entry-level positions in the probation officer field. Topics include the criminal justice system, legal foundations, terminology, codes, statutes, case law, indicators of psychological problems, gangs, interviews, court reports, defensive tactics, social justice, cultural awareness, and report writing. This course meets or exceeds minimum standards set by Standards and Training for Corrections (STC). This course is formerly known as PSTC 1878. Pass/No Pass only.

PSTC 1403 Basic Skills for the Non-Sworn Investigator

Units: 1.5

Hours: 32 hours LEC

Prerequisite: None.

This course provides the student with foundational skills and knowledge for employment as a non-sworn investigator with a law enforcement organization. Topics include the role of the non-sworn investigator, evidence, interview skills, report writing, technology resources, criminal justice information systems, subpoenas and due diligence, personal safety, and courtroom testimony. Pass/No Pass only.

PSTC 1500 Sacramento Sheriff's Office Basic Academy

Units: 28 - 29

Hours: 308 hours LEC; 592 - 652 hours LAB

Prerequisite: None.

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate, pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course satisfies all requirements for Basic Law Enforcement Academy training and is certified by the California Commission on Peace Officer Standards and Training (POST). Instructional blocks consist of all POST-required Learning Domains (LD) and agency-specific topics. Class topics include leadership, professionalism, and ethics; principled policing in the community; victimology and crisis intervention; introduction to criminal law; juvenile law and procedure; officer wellness; laws of arrest; search and seizure; investigative report writing; vehicle operations; use of force and de-escalation; domestic violence; traffic collision investigation; crime scenes, evidence and forensics; lifetime fitness; arrest and control; first aid/cardiopulmonary resuscitation/automated external defibrillator; firearms; people with disabilities; cultural diversity and discrimination; and terrorism awareness. Pass/No Pass only.

PSTC 1501 PC 832 Arrest, Search & Seizure

Units: 2

Hours: 30 hours LEC; 10 hours LAB

Prerequisite: None.

This course satisfies the arrest, search, and seizure requirement for peace officers as defined in section 832 of the California Penal Code. Topics include professionalism, ethics, the criminal justice system, policing in the community, laws of evidence and arrest, investigation, cultural diversity/discrimination, use of force, and arrest and control. This course is Commission on Peace Officer Standards and Training (POST) certified. Pass/No Pass only.

PSTC 1502 Basic Law Enforcement Academy- Module III

Units: 6 - 7

Hours: 82 - 84 hours LEC; 86 - 130 hours LAB

Prerequisite: None.

Enrollment Limitation: Students must 1) be free of felony convictions 2) possess a valid California Driver's License 3) undergo a fingerprint and criminal history check 4) be a minimum of 18 years of age 5) be a United States high school graduate, pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university, and 6) complete a medical suitability examination.

This course satisfies the Commission on Peace Officer Standards and Training (POST) Level III reserve peace officer training requirements. It is the first in a three-part series of courses which prepares students for entry-level employment as reserve or regular full-time California peace officers. Topics include leadership, professionalism, and ethics; policing in the community; introduction to criminal law; investigative report writing; use of force and de-escalation; traffic enforcement; crimes scenes and forensics; arrest and control; firearms; and cultural diversity and discrimination. Pass/No Pass only.

PSTC 1503 Basic Law Enforcement Academy- Module II

Units: 8 - 11

Hours: 108 - 140 hours LEC; 132 - 200 hours LAB

Prerequisite: PSTC 1502

Enrollment Limitation: Students must 1) be free of felony convictions 2) possess a valid California Driver's License 3) undergo a fingerprint and criminal history check 4) be a minimum of 18 years of age 5) be a United States high school graduate, pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university, and 6) complete a medical suitability examination.

This course satisfies the Commission on Peace Officer Standards and Training (POST) Level II reserve peace officer training requirements. It is the second in a three-part series of courses which prepares students for entry-level employment as reserve or regular full-time California peace officers. Topics include principled policing in the community; property crimes; crimes against persons and death investigations; laws of arrest; search and seizure; presentation of evidence; use of force and de-escalation; patrol techniques; crimes in progress; crime scenes, evidence, and forensics; arrest and control; firearms and chemical agents; cultural diversity and discrimination; and introduction to lifetime fitness and officer wellness. Pass/No Pass only.

PSTC 1504 Basic Law Enforcement Academy- Module I

Units: 13.5 - 17

Hours: 149 - 190 hours LEC; 286 - 360 hours LAB

Prerequisite: PSTC 1503

Enrollment Limitation: Students must 1) be free of felony convictions 2) possess a valid California Driver's License 3) undergo a fingerprint and criminal history check 4) be a minimum of 18 years of age 5) be a United States high school graduate, pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university, and 6) complete a medical suitability examination.

This course, the third in a three-part series of courses, satisfies training requirements of the Commission on Peace Officer Standards and Training (POST) for the Level I reserve or full-time regular peace officer. Topics include victimology, crimes against children, juvenile law and procedure, vehicle operations, crimes in progress, domestic violence, missing persons, traffic collision investigation, lifetime fitness, firearms and chemical agents, persons with disabilities, gang awareness, emergency management, interview and interrogations, courtroom testimony and emotional survival. Upon successful completion the students will possess a Certificate of Completion of the POST Basic Law Enforcement Academy. POST certification #2970-00150. Pass/No Pass only.

PSTC 1505 California Highway Patrol Basic Law Enforcement Academy

Units: 25

Hours: 152 hours LEC; 894 hours LAB

Prerequisite: None.

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate, pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This Commission on Peace Officer Standards and Training (POST) certified course is a consolidated program of training in criminal law, juvenile law, laws of evidence, administration of justice, community relations, investigation, traffic control and procedures, patrol procedures, defensive tactics, arrest control including handcuffing and weaponless defense, baton techniques, firearms, first aid and CPR, and vehicle operations. Pass/No Pass only.

PSTC 1506 Sacramento Police Department Basic Academy

Units: 22 - 26

Hours: 251 hours LEC; 466 - 682 hours LAB

Prerequisite: None.

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate, pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course presents a comprehensive program of training in law, ethics, community policing, vehicle operations, use of force, patrol techniques, firearms, traffic control and enforcement, criminal investigations, physical fitness, chemical agents, and first aid and CPR. Upon successful completion of the course, students receive a Commission on Peace Officer Standards and Training (POST) Basic Academy Certificate of Completion. This course is formerly known as SPD 1100. Pass/No Pass only.

PSTC 1507 Preparing for a Law Enforcement Career

Units: 0.5 - 0.75

Hours: 4 - 8 hours LEC; 16 - 24 hours LAB

Prerequisite: None.

This course introduces the student to requirements that must be met for application and acceptance into a California Peace Officer Standards and Training (POST) certified regular basic law enforcement academy. Topics include an overview of the academy training program and program standards, POST and legislatively mandated pre-academy testing, educational requirements, required clearances, reading and writing tests, physical skills tests, and availability of financial assistance through the community college. It also covers guidance in researching law enforcement agencies throughout the state and preparing for a law enforcement agency background and interview process. Field trips may be required. Pass/No Pass only.

PSTC 1514 Academy Graduate Training - SPD

Units: 1.5 - 2

Hours: 28 - 34 hours LEC

Prerequisite: None.

This course, designed for the new academy graduate, provides specific additional training in areas not covered in the POST Basic Academy. Topics include use of the intoxilyzer, in-car camera, field training overview and the robbery alarm monitor system. Pass/No Pass only.

PSTC 1515 Academy Instructor Certification Course

Units: 1.5

Hours: 24 hours LEC; 16 hours LAB

Prerequisite: None.

This course provides valuable skills for all instructors of California law enforcement including, in-service and public safety dispatch training. Students will gain facilitation skills and an understanding of how to employ adult learning methodologies appropriate for various law enforcement topics. This course meets the basic instructional skills training requirement to teach in the California Peace Officer Standards and Training (POST) Regular Basic Course and for the Academy Instructor Certificate Program. Pass/No Pass only.

PSTC 1517 Academy Graduate Training

Units: 2

Hours: 41 hours LEC; 32 hours LAB

Prerequisite: California POST-certified basic law enforcement academy within 2 years or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee that state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course provides the recent POST-certified law enforcement academy graduate with additional training in topics specific to daily field operations. It is intended to bridge the academy and field training programs with a focus on enhancing the safety and well-being of law enforcement

officers and the communities they serve. Topics include introduction to the field training program, internal affairs and the role of the police officers' union, legal updates, fair and impartial policing, less lethal force options and deployment, crowd movement and control, court appearances, and work-life balance and wellness. Pass/No Pass only.

PSTC 1520 POST Supervisor

Units: 2

Hours: 16 hours LEC; 64 hours LAB

Prerequisite: POST-certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee that state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course examines the legal, moral, and ethical responsibilities and challenges associated with first line field operations supervision specific to the law enforcement environment. Lectures, facilitated discussions, and student presentations emphasize the examination of case studies, reviews and updates of case and statutory law, situational leadership, followership, critical incidents and critical incident management, stress management, managing conflict, counseling, and problem solving. It includes examining personality profiles for effective team development and supervision, developing and conducting subordinate counseling sessions, and preparing performance evaluations and improvement programs. This course is certified by the California Commission on Peace Officer Standards and Training, POST #2970-00400. Pass/No Pass only.

PSTC 1521 STC Supervisor Core

Units: 2.5

Hours: 30 hours LEC; 50 hours LAB

Prerequisite: PSTC 1270, 1271, or 1273

This Standards and Training for Corrections-certified course examines supervision in the context of parole and probation environments. Topics include the role of the supervisor, managing personnel, supervisory skills, laws and standards, and communication. Pass/No Pass only.

PSTC 1531 Frontline Leadership SPD

Units: 2

Hours: 24 hours LEC; 59 hours LAB

Prerequisite: None.

This course is designed to enhance the leadership skills of line-level law enforcement personnel. Topics include characteristics of leadership, personal accountability, holding employees accountable, and ethical dilemmas in leadership.

PSTC 1533 Internal Affairs Investigation

Units: 1

Hours: 16 hours LEC; 8 hours LAB

Prerequisite: POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) Be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination

This course introduces the issues and techniques associated with conducting Internal Affairs investigations in a law enforcement environment. Topics include the role and purpose of internal affairs, risk and liability assessment, role of internal affairs investigator, policy considerations and public employee rights. This course also explores the impact of internal investigations on employees, the organization and the public. This course is certified by the California Peace Officer Standards and Training (POST). Pass/No Pass only.

PSTC 1534 Sergeant Training and Orientation

Units: 2.5

Hours: 40 hours LEC; 40 hours LAB

Prerequisite: State of California Commission on Peace Officer Standards and Training (POST)-certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee that state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) be free of felony convictions as reported by the Department of Justice; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course is designed for new law enforcement sergeants. It emphasizes leadership, handling of critical incidents and major crimes, internal affairs investigations, and pursuit liability. Pass/No pass only.

PSTC 1542 Property and Evidence Room Management

Units: 1.25

Hours: 24 hours LEC

Prerequisite: None.

This course covers the legal requirements, procedures, and basic responsibilities and techniques involved in the proper operation of a property room. Topics include property room problems and solutions, packaging, security, storage management, documentation, purging, dispositions, audits, and inventories.

PSTC 1550 Code Enforcement Officer

Units: 2

Hours: 36 hours LEC; 4 hours LAB

Prerequisite: None.

This course is designed for newly appointed code enforcement/peace officer who is assigned to enforce the codes of a city, county, or state. Topics include ethics, zoning laws, sub-standard housing, inspection protocol, report writing, case preparation, and administrative hearings. Pass/No Pass only.

PSTC 1551 Code Enforcement Officer - Intermediate

Units: 2

Hours: 36 hours LEC; 4 hours LAB

Prerequisite: PSTC 1550

This course is designed for code enforcement/peace officers with experience enforcing city, county, and state administrative codes. Topics include legal update, courtroom testimony, administrative hearings, tactical communication, use of pepper spray, problem oriented policing (POP), customer service, officer safety, and animal awareness. Pass/No Pass only.

PSTC 1552 Code Enforcement Officer - Advanced

Units: 2

Hours: 36 hours LEC; 4 hours LAB

Prerequisite: PSTC 1551

This course covers advanced topics for code enforcement/peace officers. Topics include legal updates and personal safety, with a focus on vectors, molds, fire, electrical, and plumbing codes. Pass/No Pass only.

PSTC 1555 Regulatory Investigative Techniques

Units: 2

Hours: 40 hours LEC

Prerequisite: None.

This course is designed for the law enforcement officer assigned to an investigative role within a state agency. The course focuses on techniques that enhance the investigator's ability to prepare a criminal or administrative case for prosecution in a criminal or administrative hearing. Topics include roles and responsibilities, interview techniques, search warrants and report writing. Pass/No Pass only.

PSTC 1571 Field Training Officer

Units: 2

Hours: 40 hours LEC

Prerequisite: POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee that state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) Be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course is designed for newly assigned personnel responsible for training entry-level law enforcement officers. Topics include field training program goals and objectives; the expectations, functions, and roles of the field training officer; legal and liability issues for field training officers; driver

awareness and safety; interaction with persons with mental illness or intellectual disability; teaching and training skills development; competency evaluation and documentation; intervention techniques; remediation; and test and scenario development strategies. Field Training Officer is certified by the California Commission on Peace Officer Standards and Training (POST), certification #2970-31725. Pass/No Pass only.

PSTC 1572 Field Training Officer - Update

Units: 1

Hours: 24 hours LEC

Prerequisite: PSTC 1571

This course updates field training officers on new training methods, new policing methods, and legal liabilities. Topics include academy update, remediation methodologies, tactical communications, adult learning theories, ethics, liability, and supervision. Pass/No Pass only.

PSTC 1573 Field Training Program Supervisor, Administrator, Coordinator Course

Units: 1

Hours: 24 hours LEC

Prerequisite: POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) Be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This POST certified course is designed for personnel responsible for administering their law enforcement agency's Field Training Program. Topics include POST approved Field Training Program and manual, managing a training program, documentation and legal liability. Pass/No Pass only.

PSTC 1586 Citizens Academy - SPD

Units: 1

Hours: 12 hours LEC; 24 hours LAB

Prerequisite: None.

This course provides a comprehensive overview of the criminal justice system. Topics include the role of the District Attorney, role of law enforcement and internal affairs, special challenges for the prosecution, race as a factor in the criminal justice system, the federal criminal justice system, anatomy of a criminal case, the judicial system, community focus and gangs, and building bridges and partnerships. Pass/No Pass only.

PSTC 1602 Arrest and Control Instructor

Units: 1.25

Hours: 80 hours LAB

Prerequisite: State of California Commission on Peace Officer Standards and Training (POST) certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee that the state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) Be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course introduces students to the requisite skills and knowledge to provide arrest and control instruction in State of California Commission on Peace Officer Standards and Training (POST) certified law enforcement and/or State of California Board of State and Community Corrections Standard and Training for Corrections (STC) certified correctional environments. Instruction is provided in the areas of arrest and control, liability issues for police and corrections, health and safety precautions for instructing manipulative skills, safe and effective application of control holds, take-down maneuvers, and ground fighting. Pass/No Pass only.

PSTC 1603 Arrest and Control Instructor Advanced

Units: 0.5

Hours: 40 hours LAB

Prerequisite: PSTC 1602

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course provides students with advanced skills and knowledge for providing weaponless defense ground fighting instruction in State of California Commission on Peace Officer Standards and Training (POST) certified law enforcement and/or State of California Board of State and Community Corrections Standard and Training for Corrections (STC) certified corrections environments. Topics include legal updates, ground control, take-downs, wall defenses, escapes, and sustained resistance techniques. Pass/No Pass only.

PSTC 1604 Arrest and Control Instructor Update

Units: 0.25

Hours: 24 hours LAB

Prerequisite: PSTC 1602

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course provides weaponless defense instructors with updates in techniques, tactics, and legal issues in contemporary policing. Topics include legal updates, control holds, take-downs, arrest tactics, searches, handcuffing, ground control, and expert witness testimony. Pass/No Pass only.

PSTC 1621 Impact Weapons Instructor

Units: 1.5

Hours: 6.5 hours LEC; 73.5 hours LAB

Prerequisite: PSTC 1683, or placement through the assessment process.; POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This California Commission on Peace Officer Standards and Training (POST)-certified course provides students with the skills and knowledge to provide instruction for the use of impact weapons in the public safety environment. Topics include legal issues and points of authority in the use of force; POST expanded course outlines and lesson plans; preparing for physical skills instruction; injury prevention and the proper use of training equipment; documentation requirements related to the use of impact weapons; reviewing impact weapon strike zones, striking techniques, and katas; reviewing impact weapon blocking techniques and katas; retaining and controlling impact weapons; and evaluating student performance. Pass/No Pass only.

PSTC 1622 Impact Weapons Instructor - Update

Units: 0.25

Hours: 4 hours LEC; 12 hours LAB

Prerequisite: PSTC 1621 and 1621

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This Peace Officer Standards and Training (POST)-certified course provides current public safety impact weapons instructors with updated skills and knowledge in the use of impact weapons and accompanying legal considerations. Topics include liability issues associated with the instruction and use of impact weapons, use of force studies, reviewing and updating instructional techniques, using personal body weapons, and critiquing and evaluating impact weapons instruction. Pass/No Pass only.

PSTC 1625 Arrest Control and Baton Instructor - SPD

Units: 3

Hours: 42 hours LEC; 38 hours LAB

Prerequisite: None.

This course provides law enforcement officers with the skills necessary to be certified as arrest control and baton instructors. Topics include principles of arrest control, legal issues, search fundamentals, handcuffing techniques and application, ground-fighting techniques, and carotid control hold. Pass/No Pass only.

PSTC 1640 Firearms Familiarization (PC 832)

Units: 0.5

Hours: 8 hours LEC; 16 hours LAB

Prerequisite: None.

Enrollment Limitation: Students must 1) Be free of felony convictions as reported by the Department of Justice; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate, pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course provides a basic introduction to legal aspects of shooting and firearms safety. Topics include safe and proper handling, nomenclature, mechanical functions, manipulation, range safety, shooting principles, accuracy, and live-fire exercises. This POST-certified course complies with California Penal Code 832. All firearms exercise testing will be conducted under written presenter safety procedures and protocols established in accordance with POST safety guidelines. Students are required to comply with every aspect of presenter safety procedures and/or protocols during firearms training and safety.

PSTC 1645 Force and Weaponry - Basic

Units: 1.5

Hours: 18 hours LEC; 22 hours LAB

Prerequisite: PSTC 1273

Enrollment Limitation: Students must 1) be free of felony convictions as reported by the Department of Justice; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate, pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course meets the Standards and Training for Corrections (STC) requirements for field probation officers who are required to carry firearms in the performance of their duties. Topics include introduction to firearms, firearms safety, basic firearms manipulation, use of force, weaponless defense, weapon retention, and tactical movement. Students are required to participate in live-fire exercises and pass the PC 832 and close combat firearms qualifications. Upon course completion, students receive PC 832 firearms certification from STC and the California Commission on Peace Officer Standards and Training (POST). Pass/No Pass only.

PSTC 1646 Force and Weaponry - Advanced

Units: 1

Hours: 16 hours LEC; 8 hours LAB

Prerequisite: PSTC 1645

Enrollment Limitation: Students must 1) Be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course provides an update for armed probation officers. Topics include legal issues, shoot/don't shoot, weapon retention, arrest and control, and weapon malfunctions. Pass/No Pass only.

PSTC 1648 Firearms/ Tactical Rifle

Units: 0.5

Hours: 4 hours LEC; 20 hours LAB

Prerequisite: POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must be peace officer members of a police department, sheriff's office, marshal's office, the California Highway Patrol, the Department of Justice, or the Department of Corrections and Rehabilitation and are authorized by their agencies to possess short-barreled rifles within the course and scope of their duties.

This course builds upon the student's existing skills and knowledge in the legal, safe, and proper use of firearms in the law enforcement environment. It is designed for AR15 style and mini-14 style rifles with high-capacity magazines and standard duty pistols. Instruction includes use of force, safe and proper handling of the patrol rifle, consideration of environmental factors, skill development, and tactical shooting and movement. Completion of this course satisfies the legislative training mandate to possess short barrel rifles as specified in Penal Code section 33220(b) and the California Commission on Peace Officer Training and Standards (POST) training requirement to possess long barrel rifles as specified in Commission Regulation 1081. This course is formerly known as SCSD 1221. Pass/No Pass only.

PSTC 1650 Firearms and Tactical Rifle Instructor

Units: 2.5

Hours: 30 hours LEC; 50 hours LAB

Prerequisite: PSTC 1648 and 1683; State of California Commission on Peace Officer Standards and Training (POST) certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee that state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must be peace officer members of a police department, sheriff's office, marshal's office, the California Highway Patrol, the Department of Justice, or the Department of Corrections and Rehabilitation and are authorized by their agencies to possess short-barreled rifles within the course and scope of their duties. Additionally, students must have completed a training course in the use of these weapons certified by POST.

This course is specifically designed to prepare experienced law enforcement personnel to teach the POST certified firearms course at the basic law enforcement academy level and in-service law enforcement firearms training courses. Topics include the role of the law enforcement firearms instructor, liability issues, instructor development, lesson plan development, basic marksmanship, shooter problem analysis, standard and non-traditional shooting positions, weapons transition, and tactical movement and cover. This course meets the minimum instructor certification requirements to be a POST certified pistol and rifle instructor. Successful completion of all portions of the course, including all course work and firearms qualifications, are mandatory to receive certification. Partial certification will not be allowed. POST certification 2970-21209. Pass/No Pass.

PSTC 1651 Firearms Instructor Update

Units: 0.5

Hours: 2 hours LEC; 22 hours LAB

Prerequisite: PSTC 1650

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED or the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course is designed to further develop and update existing firearm instructors on instructional techniques, diagnostic interpretation, and target systems. This course is accredited by the Commission on Peace Officer Standards and Training (POST) with POST Certification #297021740 and the Standards and Training for Correction (STC) Program #0218-027422. This course is formerly known as PSTC 1258. Pass/No Pass only.

PSTC 1654 Firearms / Rifle Instructor - Update

Units: 0.5

Hours: 2 hours LEC; 22 hours LAB

Prerequisite: None.

Enrollment Limitation: Students must be legally authorized to carry/possess the short-barreled rifle. Authorized persons are identified as “peace officer members of a police department, sheriff's office, marshal's office, the California Highway Patrol, the Department of Justice, or the Department of Corrections and Rehabilitation, when on duty and the use is authorized by the agency and is within the course and scope of their duties, and the officers have completed a training course in the use of these weapons certified by the Commission on Peace Officer Standards and Training.”

This course provides the POST-certified law enforcement rifle instructor with contemporary information on legal issues, liability issues, updated training techniques and skills assessment in the use of the short barreled patrol rifle. Topics include instructional techniques, close-quarter combat and active shooter techniques, weapon maintenance, and deployment shooting techniques. Pass/No Pass only.

PSTC 1660 Public Safety Dispatcher - Basic (SPD)

Units: 6

Hours: 105 hours LEC; 15 hours LAB

Prerequisite: None.

This course is designed to introduce new dispatchers to the basic requirements of first responder dispatching. This course fulfills the requirement by the Commission on Standards and Training for Peace Officers (POST). Topics include telephone procedures, radio procedures, stress management, criminal justice system and law. Pass/No Pass only.

PSTC 1661 Public Safety Dispatcher - Advanced (SPD)

Units: 8

Hours: 77 hours LEC; 203 hours LAB

Prerequisite: PSTC 1660

This course is designed for students who have successfully completed the Public Safety Dispatcher Basic Course. Topics include using Computer Aided Dispatch (CAD), databases, dispatcher role in officer safety, telecommunications, and practical applications. Pass/No Pass only.

PSTC 1662 Radio Dispatch Academy (SPD)

Units: 2.5

Hours: 33 hours LEC; 42 hours LAB

Prerequisite: PSTC 1660

This course increases the student's knowledge of radio procedures and technology, emergency dispatch, and telecommunications. Topics include radio equipment, radio codes, basic voice dispatch, special assistance commands, broadcast procedures, officer safety, and search patterns. Pass/No Pass only.

PSTC 1663 SPD Communications Training Officer Program

Units: 2

Hours: 34 hours LEC; 6 hours LAB

Prerequisite: Completion of a POST Law Enforcement Basic or Dispatcher's Academy

This course is designed to instruct law enforcement dispatchers on the techniques for training newly assigned communications center personnel. Topics include ethics and leadership, adult learning concepts, training methods and performance assessments, training action plans, and emotional intelligence and conflict resolution throughout the training process. Pass/No Pass only.

PSTC 1671 Automated Field Reporting (AFR)

Units: 0.5

Hours: 4 hours LEC; 16 hours LAB

Prerequisite: PSTC 1660 (Public Safety Dispatcher - Basic (SPD)) or equivalent as determined by the Dean of academy instruction.

This course builds upon students' existing skills, providing training and orientation to the law enforcement records management system. Topics include records management, tracking, data screens and terminology. Pass/No Pass only.

PSTC 1683 Continuing Professional Training for Peace Officers

Units: 0.25 - 1.5

Hours: 4 - 16 hours LEC; 4 - 44 hours LAB

Prerequisite: California POST-certified basic law enforcement academy within two (2) years or equivalent as determined by the Dean of Academy Instruction (Chapter 11, California Code of Regulations, Section 1005). NOTE: Approval of equivalent training is not a guarantee that state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course is designed to meet the 2-year perishable skills training cycle requirements for California peace officers. Course content consists of instructional blocks which update and advance the student's existing knowledge and skill set associated with providing public safety in fluid and dynamic multicultural communities. Instruction includes strategic communication, first aid/CPR/AED update, tactical firearms, arrest and control, and may include additional topics determined by legislative mandates and/or regional needs. Formerly SCSD 1150. Pass/No Pass only.

PSTC 1684 Continued Professional Training - Sacramento Police Department

Units: 0.25 - 2.5

Hours: 4 - 40 hours LEC; 4 - 40 hours LAB

Prerequisite: POST-certified basic law enforcement academy within two (2) years or equivalent as determined by the Dean of Academy Instruction (Chapter 11, California Code of Regulations, Section 1005). NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course updates and advances the student's existing knowledge and skill set associated peacekeeping and law enforcement in contemporary society. Instruction in evolving issues includes the safe handling of firearms, tactical shooting, tactical movement, arrest and control, ground fighting, chemical weapons, non-lethal weapons, government codes, penal codes, vehicle codes, health and safety codes, welfare and institution codes, and interpersonal and tactical communication. This course is formerly known as SPD 1193. Pass/No Pass only.

PSTC 1685 Patrol Entry and Search Training- SPD

Units: 0.25

Hours: 3 hours LEC; 5 hours LAB

Prerequisite: POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) Be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination

This update course provides students with information on the various aspects of patrol entry and search techniques. Topics include firearms entry and search techniques in the law enforcement environment, including room clearing, three man bump, and team composition. This course is formerly known as SPD 1217. Pass/No Pass only.

PSTC 1720 Defensive Driving

Units: 0.25

Hours: 8 hours LEC

Prerequisite: None.

This course is designed to enhance the driving skills of public employees who are required to drive motor vehicles in the performance of their duties. Pass/No Pass only.

PSTC 1722 Driver Training - Update

Units: 0.5

Hours: 6 hours LEC; 12 hours LAB

Prerequisite: POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee that state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course is designed for law enforcement personnel to update them on new laws and refresh their driving skills. This is a Commission on Peace Officer Standards and Training (POST) mandate. Pass/No Pass only.

PSTC 1729 Emergency Vehicle Operations Instructor (SSD/SPD)

Units: 1

Hours: 12 hours LEC; 28 hours LAB

Prerequisite: Completion of a Commission on Peace Officer Standards and Training (POST) Basic Academy

This course provides information and resources to start an emergency vehicle operations course, develop instructional lesson plans, and day to day operational issues. Topics include starting an Emergency Vehicle Operations Course (EVOC) program, emergency response, pursuit driving, and civil liability. Pass/No Pass only.

PSTC 1734 Basic K9 Training

Units: 7

Hours: 8 hours LEC; 372 hours LAB

Prerequisite: POST-certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee that state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate, pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course provides law enforcement officers with skills and knowledge in areas of canine (K9) training and deployment. Topics include care at the home of the canine partner, canine behavior, obedience, obstacle and agility course work, field searches, narcotics and explosives detection, vehicle retention, and safety. Pass/No Pass only.

PSTC 1744 Less Lethal Force Update-SPD

Units: 0.75

Hours: 12 hours LEC; 6 hours LAB

Prerequisite: POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) Be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate, pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This update course on lethal force enhances the knowledge of personal safety and effectiveness of the officer assigned to patrol. Topics include pepper spray, use of baton, and carotid holds. This course is formerly known as SPD 1195. Pass/No Pass only.

PSTC 1745 Police Radar Operator (SPD)

Units: 0.5

Hours: 32 hours LAB

Prerequisite: POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Students who do not hold a POST basic certificate, or equivalent, may struggle in this course, because fundamental terms and concepts and laws basic to law enforcement will not be taught or explained.

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course advances the student's existing knowledge and skill set in the area of traffic violation enforcement and in the proper use of police radar devices. Topics include speed enforcement, history and theory, vehicle code law and court decisions, moving radar operation, radar effects, and visual speed and range estimation. The course may meet at various off-campus locations. Pass/No Pass only.

PSTC 1749 Officer Survival and Tactics

Units: 1

Hours: 8 hours LEC; 32 hours LAB

Prerequisite: POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) Be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course is designed to advance the skill level of law enforcement personnel in the most current methods of field tactics and combative confrontations. Topics include officer survival techniques, handgun retention techniques, and defensive tactics. Pass/No Pass only.

PSTC 1761 Crime Prevention Through Environmental Design

Units: 2

Hours: 35 hours LEC; 5 hours LAB

Prerequisite: None.

This course is designed for crime prevention personnel and city and county planners dealing with environmental designs. Topics include reviewing existing locations and new construction submittals and their impact on public safety, community policing, and problem solving theory and process. Pass/No Pass only.

PSTC 1770 Basic Peer Support

Units: 0.5 - 1

Hours: 6 - 10 hours LEC; 18 - 30 hours LAB

Prerequisite: None.

This course introduces the skills required to provide basic peer support in the law enforcement environment. Topics include communication and listening skills, peer support methods, critical incidents and critical incident stress management, operational stress injury, the grief cycle, suicide prevention and intervention, peer support responses, and peer support program building. Pass/No Pass only.

PSTC 1771 Faith in Crisis

Units: 1.5

Hours: 24 hours LEC

Prerequisite: None.

This course provides volunteer crisis responders with the basic knowledge needed to provide appropriate support for survivors of violent crimes and critical incidents. Topics include local program background, structure, and code of ethics; operational procedures for local public safety agencies; local resources and referral agencies; occupational health, safety, and first aid; and mandated reporting requirements. Pass/No Pass only.

PSTC 1773 Basic Critical Incident Stress Management

Units: 1

Hours: 18 hours LEC

Prerequisite: None.

This course examines a wide range of crisis intervention services, including pre-incident and post-incident crisis education, significant support services, crisis intervention for individuals, demobilizations after large-scale traumatic incidents, small-group diffusing, and the group intervention known as Critical Incident Stress Debriefing (CISD). Pass/No Pass Only.

PSTC 1780 Campus Law Enforcement

Units: 2

Hours: 36 hours LEC; 4 hours LAB

Prerequisite: Successful completion of a POST certified basic law enforcement academy within the last three years or current equivalent training as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee that state regulatory or licensing agencies will also grant equivalency. Students who do not hold a POST basic certificate or equivalent may struggle in this course. Fundamental terms, concepts, and laws basic to law enforcement will not be taught or explained.

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course satisfies the requirements of California Penal Code section 832.3(h) which requires any school peace officer first employed by a K-12 public school district or California Community College complete the specialized course of training within two years of the date of first employment. This course also satisfies the minimum standards for legislatively mandated courses requirement established by 11 CCR § 1081. Topics include the role and responsibility of school police in campus communities, laws and liability, mandated reporting requirements, de-escalation skills and conflict resolution, dynamics of student development, principled policing and problem-solving, operational awareness in the educational environment, and emergency operations. While this course is suitable for sworn peace officers employed by a county sheriff or city police department who are assigned to perform the duties of a School Resource Officer at a K-12 public school, there is no mandate for their attendance. This course is certified by the California Commission on Peace Officer Standards and Training (POST), #2970-22294. Pass/No Pass only.

PSTC 1781 School Resource Officer

Units: 2

Hours: 40 hours LEC

Prerequisite: None.

This course is designed for the officer assigned or newly assigned as a school resource officer. Topics include school law, mentoring, basic teaching skills, instructional techniques and constructing a course outline. Pass/No Pass only.

PSTC 1787 School Security Officer

Units: 1

Hours: 24 hours LEC

Prerequisite: None.

This course is designed for security officers and guards (watch-person, campus monitor, campus officer) employed by a school district (K-12 or California Community College) for more than 20 hours per week. Topics include roles and responsibilities, liability issues, conflict resolution and student behavior. This course is approved by the Department of

Consumer Affairs/Bureau of Security and Investigative Services, and the California Commission on Peace Officers Standards and Training (POST). Pass/No Pass only.

PSTC 1800 Interview and Interrogation Techniques

Units: 2

Hours: 36 hours LEC; 4 hours LAB

Prerequisite: POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) Be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course advances the law enforcement or corrections student's knowledge and skills set in legal and behavioral techniques associated with interview and interrogation. Topics include predictable behavior, free-format interviews, elimination interviews, polygraphs, and the Ten Step Plan for interviews and interrogations. This course is certified by the California Commission on Peace Officer Standards and Training (POST), #2970-31445 and Standards and Training for Corrections (STC), #0218-007921. Pass/No Pass only.

PSTC 1801 Background Investigations

Units: 1.5 - 2

Hours: 32 - 40 hours LEC

Prerequisite: None.

This course is designed for law enforcement or civilian personnel who are responsible for conducting background investigations for the hiring of public safety personnel. Topics include the background process, psychological evaluations, interviewing techniques and documentation. This course is approved by the California Commission on Peace Officer Standards and Training (POST) and California Standards and Training for Corrections (STC). Pass/No Pass only.

PSTC 1804 Informant Development and Maintenance

Units: 1

Hours: 24 hours LEC

Prerequisite: POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) Be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course advances students' existing investigative skills, interview and interrogation skills, informant development and management, case management and the development and execution of search warrants. Topics include common problems when using informants, limitations on the use of informants, informant motives, informant policies, investigative strategies, and informants and ethics.

PSTC 1807 Advanced Identification of Organized Criminal Street Gangs and Criminal Gang Activities

Units: 0.25 - 0.75

Hours: 8 - 16 hours LEC

Prerequisite: None.

This course provides information and resource identification critical for the reduction of gang violence. Pass/No Pass only.

PSTC 1812 Fingerprint Identification - Basic

Units: 2

Hours: 40 hours LEC

Prerequisite: None.

This course is designed to provide basic instruction in fingerprint comparison and identification. Topics include ridge characteristics, basic pattern types, classifications and verifications. Pass/No Pass only.

PSTC 1813 Crime Scene and Forensic Photography of Physical Evidence

Units: 1

Hours: 24 hours LEC

Prerequisite: None.

This course provides law enforcement crime scene investigators the skills needed to conduct forensic photography of physical evidence as well as conduct general crime scene photography. Topics include legal admissibility, photographic coverage, major crime scene photography, film speed, lighting techniques, and photographic equipment. Pass/No Pass only.

PSTC 1814 Advanced Latent Print Comparison & Identification

Units: 2

Hours: 40 hours LEC

Prerequisite: PSTC 1812

This advanced course is designed for the crime scene investigator or fingerprint technician to learn how to compare and identify latent/fragmentary prints to inked fingerprint and palm print impressions. This course is formerly known as PSTC 1821. Pass/No Pass only.

PSTC 1852 Drug and Alcohol Recognition - Update

Units: 1

Hours: 24 hours LEC

Prerequisite: None.

This course provides law enforcement personnel with the knowledge and skills to evaluate the effects of drugs and alcohol on an individual and to provide expert testimony on the evaluation. Topics include legal codes, stimulants and depressants, investigative techniques and courtroom testimony. Pass/No Pass only.

PSTC 1853 Integrated Narcotics Training

Units: 0.5 - 1

Hours: 4 - 8 hours LEC; 32 - 36 hours LAB

Prerequisite: POST certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) Be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course advances the student's existing advanced investigative skills with specialized narcotics related training. Topics include ethics and integrity, surveillance techniques, undercover operations, and asset seizure. This course is formerly known as SPD 1237. Pass/No Pass only.

PSTC 1874 Traffic Collision Investigation - Intermediate

Units: 2

Hours: 40 hours LEC

Prerequisite: PSTC 1900; POST-certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee that state regulatory or licensing agencies will also grant equivalency

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course provides an advanced level of knowledge, skills, and abilities for the collision investigator to accurately identify physical evidence, apply the correct mathematical computations, calculate a vehicle’s pre-collision basic speed, post-collision basic speed, critical speed, and to accurately map a collision scene to scale. Pass/No Pass only.

PSTC 1900 Traffic Collision - Basic

Units: 2

Hours: 40 hours LEC

Prerequisite: POST-certified basic law enforcement academy or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee that state regulatory or licensing agencies will also grant equivalency.

Enrollment Limitation: Students must 1) be free of felony convictions; 2) possess a valid California Driver's License; 3) undergo a fingerprint and criminal history check; 4) be a minimum of 18 years of age; 5) be a United States high school graduate; pass the GED, pass the California High School Proficiency Examination, or have attained a two-year or four-year degree from an accredited college or university; and 6) complete a medical suitability examination.

This course provides in-depth instruction into the multiple disciplines of traffic collision investigation. Topics include scene management techniques and an introduction to the Manual on Uniform Traffic Control Devices, highway engineering definitions, Nine-Cell Matrix, incident scene photography, primary collision factors, identification and documentation of physical evidence, measuring and diagramming methodology, use of a traffic template's nomographs and functions, and an in-depth discussion on proper traffic collision documentation per Highway Patrol Manual 110.5, Collision Investigation Manual (CIM). This course satisfies the prerequisites for the Intermediate Collision Investigation course, as well as the requirements of California Vehicle Code Section 40600.

PSTC 1998 Work Experience in PSTC

Units: 1 - 4

Prerequisite: None.

PSTC 1999 Experimental Offering in PSTC

Units: 0.5 - 4

Prerequisite: None.

This course is designed to meet the changing needs of law enforcement and corrections by providing a curriculum for new or experimental courses promulgated by a specific criminal agency, STC, POST or the State Legislature as curriculum is being tested. The courses will vary in length from two-hour courses to twenty-four-hour technical courses. This course may be taken four (4) times for credit.

Sacramento Metropolitan Fire District (SMFD) Courses

Respiratory Care

Overview

This degree is preparation for licensure as a Respiratory Care Practitioner in the state of California as a Respiratory Care Practitioner at the Advanced Registered Respiratory Therapist level. It focuses on diagnostic procedures, treatment, and management of patients with conditions affecting the cardiopulmonary system. Course work includes physical assessment, medical gas therapies, mechanical life support, airway care, pharmacology, neonatal/pediatric therapy, and specialized cardiopulmonary procedures. All degree major courses require a grade of “C” or better to remain in the program.

ARC's Respiratory Care Program is designed to prepare California licensed respiratory care practitioners at the registered respiratory therapist level. It focuses on diagnostic procedures, treatment, and management of patients with conditions affecting the cardiopulmonary system. The respiratory care practitioner works closely with the physician in assessing the patient and planning the proper respiratory care protocol.

The Respiratory Care curriculum is a two-year program designed to prepare the student for employment and to participate as a member of the healthcare team by providing direct patient care. Experience in respiratory care is provided in selected local hospitals where the student participates in clinical externships. Safe, ethical, and professional levels of practice are necessary for retention of students in the Respiratory Care Program.

The American River College (ARC) Respiratory Care (RC) program is accredited by the Commission on Accreditation for Respiratory Care (CoARC) (https://coarc.com/),

The ARC RC CoARC number is 200194.

CoARC accredits respiratory therapy education programs in the United States. To achieve this end, it utilizes an ‘outcomes based’ process. Programmatic outcomes are performance indicators that reflect the extent to which the educational goals of the program are achieved and by which program effectiveness is documented. CoARC Programmatic Outcome Data. (https://coarc.com/students/programmatic-outcomes-data/)

Degrees and Certificates Offered

A.S. in Respiratory Care

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Health Sciences Certificate

Dean: Narinedat Madramootoo

Program Director and Department Chair: Lisa Ilaga MA, BSRT, RRT, AE-C, RCP

Phone: (916) 484-8902

Email: askhb-healthed@arc.losrios.edu

Associate Degree

A.S. in Respiratory Care

This degree is preparation for licensure as a Respiratory Care Practitioner in the state of California as a Respiratory Care Practitioner at the Advanced Registered Respiratory Therapist level. It focuses on diagnostic procedures, treatment, and management of patients with conditions affecting the cardiopulmonary system. Course work includes physical assessment, medical gas therapies, mechanical life support, airway care, pharmacology, neonatal/pediatric therapy, and specialized cardiopulmonary procedures.
All degree major courses require a grade of "C" or better to remain in the program.

Degree Requirements

Course Code	Course Title	Units
Pre-RC Courses:		
A minimum of 3 units from the following:		3
ENGL C1000	Academic Reading and Writing (3)	
or ENGL C1000H	Academic Reading and Writing - Honors (3)	
ESLW 340	Advanced Composition (4)	
A minimum of 3 units from the following:		3
ANTH 310	Cultural Anthropology (3)	
or ANTH 481	Honors Cultural Anthropology (3)	
PSYC C1000	Introduction to Psychology (3)	
or PSYC C1000H	Introduction to Psychology - Honors (3)	
PSYC 320	Social Psychology (3)	
PSYC 390	Psychology of Death and Dying (3)	
Pre-requisites:		
AH 311	Medical Language for Health-Care Providers	3
BIOL 430	Anatomy and Physiology	5
BIOL 431	Anatomy and Physiology	5
BIOL 440	General Microbiology (4)	4 - 5
or BIOL 442	General Microbiology and Public Health (5)	
Spring Semester 1:		
RC 110	Cardiopulmonary Pathologies for Respiratory Care	4
RC 111	Principles of Respiratory Care	7
Summer Semester:		
RC 123	Clinical Externship I	3
Fall Semester 1:		
RC 122	Airway Care & Mechanical Ventilation Laboratory	1
RC 121	Concepts of Airway Care & Mechanical Ventilation	4
RC 124	Respiratory Care Pharmacology	3
Spring Semester 2:		
RC 130	Respiratory Care in Neonatal and Pediatric Populations & Diagnostic Studies	3
RC 131	Respiratory Care in Neonatal and Pediatric Populations & Diagnostic Studies Laboratory	1
RC 132	Clinical Externship II	6
Fall Semester 2:		
RC 140	Professional Development in Respiratory Care	2
RC 142	Clinical Externship III	6
Total Units:		**63 - 64**

The Respiratory Care Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Graduation from an accredited high school (graduates from outside the United States must have transcripts evaluated by an independent agency), or successful completion of the General Educational Development (GED) Test or California High School Proficiency Examination (CHSPE) as defined by the current requirements of the State of California and National Board for Respiratory Care.
- A GPA of 2.5 in all prerequisite courses.
- AH 311 with a grade of “C” or better.
- BIOL 430 and BIOL 431 with grades of “C” or better.
- BIOL 440 or BIOL 442 with a grade of “C” or better.
- Current college GPA of 2.0 or better.
- A Curriculum Planning Summary Sheet completed by an ARC counselor and dated within the year the enrollment application packet is submitted.
- A completed pre-enrollment application.

Enrollment Process

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

- Applications to the program may be obtained online at http://www.arc.losrios.edu/Programs_of_Study/Health_and_Education/Respiratory_Care.htm. Please check the above website for the application period and submission deadline.
- Only students who meet the pre-enrollment requirements and follow the pre-enrollment procedures will be considered for the program.
- Selection is based on a computerized random selection process from among the qualified applicants.
- The student accepted into the Respiratory Care program is required to have a physical examination, inoculations, drug screen, background check, and malpractice insurance. The student is responsible for any cost incurred related to meeting the requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- discuss patient/client reports with members of the health care network.
- collect patient information relevant to the diagnosis and treatment of patients affected by pulmonary disease.
- recommend appropriate treatment plans based upon auditory, tactile, and visual feedback.
- record assessment findings, treatment plans, and recommendations for care in medical records.
- chart patient care in accordance with local, regional, and national standards.
- categorize patients affected by pulmonary disease as having acute or chronic conditions.
- define pulmonary disorders as restrictive or obstructive disease.
- comply with ethical standards of the profession.

Career Information

The Bureau of Labor Statistics states that faster than average employment growth is projected for respiratory therapists. The increasing demand will come from substantial increases in the middle aged and elderly populations. Greater demand will also result from the expanding role of the respiratory therapist in case management, disease prevention, emergency care, and the early detection of pulmonary disorders. Career opportunities include positions in hospitals and other areas, especially in home health care services, physician's offices, and medical equipment supply companies.

Certificate of Achievement

Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Health Sciences Certificate

The Guided Pathways Milestone Certificate for Multilingual Speakers: Pathway to Health Sciences recognizes English as a Second Language students' milestones in completing both advanced academic ESL course work and introductory coursework in several health science fields. It incentivizes them to continue taking courses in this discipline after completing higher level ESL courses and to obtain a Certificate of Achievement or an Associate degree for use in a workplace.

Certificate Requirements

Course Code	Course Title	Units
ESL 315	Intermediate-High Integrated Reading and Writing	6
ESL 325	Advanced-Low Integrated Reading and Writing	6
ESLG 320	Advanced-Low Grammar (3)	3
or ESLL 320	Advanced-Low Listening and Speaking (3)	
A minimum of 5 units from the following:		5
AH 112	Strategies for Student Success in Health Occupations (3)	
AH 311	Medical Language for Health-Care Providers (3)	
BIOL 304	Essentials of Human Anatomy and Physiology (4)	
CHEM 305	Introduction to Chemistry (5)	
CISC 300	Computer Familiarization (1)	
COMM C1000	Introduction to Public Speaking (3)	
HCI 300	Introduction to Healthcare Interpreting (0.5)	
NUTRI 300	Nutrition (3)	
Total Units:		**20**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze, compose, and organize oral and written communication into effective documents and/or academic compositions.
- employ reading strategies.
- participate in in-depth discussions effectively.
- take clear notes.
- give oral presentations in a business/work environment.

- convey intended meaning and formulate and use a variety of interactive strategies effectively such as clarification, polite interruption, and agreement/disagreement strategies.
- research and critically evaluate information to create informed responses to issues and problems and design messages that adapt to target audiences in order to maximize communication effectiveness.
- demonstrate basic knowledge of introductory healthcare or scientific terms.
- employ effective communication in professional healthcare settings.

Career Information

Students who complete this Pathway to Health Sciences certificate will have gained knowledge in academic English and introductory skills in several health sciences fields, such as Healthcare Interpreting, Nutrition, and Allied Health.

Respiratory Care (RC) Courses

RC 110 Cardiopulmonary Pathologies for Respiratory Care

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Corequisite: RC 111

Enrollment Limitation: Acceptance into the Respiratory Care Program.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course introduces the common pathologies affecting the cardiopulmonary system and related pharmacological treatment. Topics include obstructive and restrictive airway diseases, early childhood respiratory diseases, infectious pulmonary diseases, and pulmonary vascular diseases.

RC 111 Principles of Respiratory Care

Units: 7

Hours: 108 hours LEC; 54 hours LAB

Prerequisite: None.

Corequisite: RC 110

Enrollment Limitation: Acceptance into the Respiratory Care Program.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course introduces critical thinking skills necessary for entry into clinical practice in respiratory care. It includes a comprehensive overview of the cardiopulmonary system with emphasis on applied physiology. Additionally, it covers ventilation, gas transport, gas exchange, and acid-base balance, including interpretation of data and the relationship of therapeutics to physiological principles. Respiratory care equipment, patient assessment skills, safe practices, such as the Health Insurance Portability and Accountability Act (HIPAA), human rights and privacy, personal health and hygiene, and hospital orientations are introduced. This course is preparation for general practice as a respiratory care practitioner. It covers laboratory skills and procedures with emphasis on the application of theories and techniques related to assessment, evaluation, and interpretation of patients with cardiopulmonary illness. Included are concepts of Basic Life Support.

RC 121 Concepts of Airway Care & Mechanical Ventilation

Units: 4

Hours: 72 hours LEC

Prerequisite: RC 110 and 111 with grades of "C" or better

Corequisite: RC 122, 123, and 124

This course expands on the principles of respiratory failure, airway protective techniques, and advanced life support. Topics include mechanical ventilator theories and modes, invasive and noninvasive airway care, and Advanced Cardiac Life Support (ACLS) procedures.

RC 122 Airway Care & Mechanical Ventilation Laboratory

Units: 1

Hours: 54 hours LAB

Prerequisite: RC 110 and 111 with grades of "C" or better

Corequisite: RC 121, 123, and 124

This course introduces higher levels of clinical practice including critical care. It covers Advanced Cardiac Life Support (ACLS), airway protective procedures, and mechanical ventilation.

RC 123 Clinical Externship I

Units: 3

Hours: 162 hours LAB

Prerequisite: RC 110 and 111 with grades of "C" or better

Corequisite: RC 121, 122, and 124

Enrollment Limitation: Students must meet the health requirements of the Los Rios Community College District for Allied Health Programs and certification in Basic Life Support for the Health Care Provider.

This course presents the principles of medical gas delivery devices; humidity, aerosol and hyperinflation therapies, and chest physiotherapy. It also covers the application, patient assessment, patient monitoring, and evaluation of the efficacy of medical gas, humidity, aerosol and hyperinflation therapies, and chest physiotherapy. A portion of this course may be offered with a TBA component which may include working in clinical sites.

RC 124 Respiratory Care Pharmacology

Units: 3

Hours: 54 hours LEC

Prerequisite: RC 110 and 111 with grades of "C" or better

Corequisite: RC 121, 122, and 123

This course covers the concepts and principles of pharmacology
required in the practice of respiratory care, including medications, actions, dosages, routes of administration, and adverse reactions. Topics include patient education of medication delivery devices, patient
monitoring devices, utilization techniques, and the standards for therapeutic efficacy in relation to asthma, chronic obstructive
pulmonary disease, and smoking cessation.

RC 130 Respiratory Care in Neonatal and Pediatric Populations & Diagnostic Studies

Units: 3

Hours: 54 hours LEC

Prerequisite: RC 121, 122, 123, and 124 with grades of "C" or better

Corequisite: RC 131 and 132

This course prepares students to work in laboratories and special care areas of a hospital. Topics include perinatal and pediatric diseases, labor and delivery, rehabilitation, and advanced diagnostic studies performed by respiratory therapists. Additional topics include bronchoscopy, advanced pulmonary function studies, bronchial provocation testing, polysomnography, exercise stress tests, metabolic studies, hemodynamic measurements, advanced modalities of mechanical ventilation, and cardiovascular testing.

RC 131 Respiratory Care in Neonatal and Pediatric Populations & Diagnostic Studies Laboratory

Units: 1

Hours: 54 hours LAB

Prerequisite: RC 121, 122, 123, and 124 with grades of "C" or better

Corequisite: RC 130 and 132

This course prepares students for general practice as respiratory care practitioners. It provides laboratory practice in medical gas, humidity/aerosol, hyperinflation and bronchial hygiene therapies, airway management, and non-invasive and invasive mechanical ventilatory support as applied to neonatal and pediatric patients in specialized critical care units. Additionally, it covers pulmonary rehabilitation techniques, cardiopulmonary stress testing, sleep studies, and respiratory care techniques in the home setting. Students must successfully complete the National Board for Respiratory Care (NBRC) Self Assessment Examinations to receive a passing grade in this course. Students are responsible for fees associated with this examination.

RC 132 Clinical Externship II

Units: 6

Hours: 324 hours LAB

Prerequisite: RC 121, 122, 123, and 124 with grades of "C" or better

Corequisite: RC 130 and 131

Enrollment Limitation: Student must meet the health requirements of the Los Rios Community College District for Allied Health Programs and certification in Advanced Cardiac Life Support.

This is a preparatory course for advanced practice as respiratory care practitioners. Topics include clinical practice in the application of airway management, including intubation, suctioning, and bronchoscopy, to adult patients in critical care units. Additionally it includes clinical practice in application of non-invasive and invasive mechanical ventilatory support, ventilator settings/adjustments, monitoring, adjusting ventilators to improve oxygenation and/or ventilation and discontinuance from mechanical ventilatory support. Clinical experience is provided in regional hospitals and clinics. A portion of this course may be offered with a TBA component which may include working in clinical sites.

RC 140 Professional Development in Respiratory Care

Units: 2

Hours: 36 hours LEC

Prerequisite: RC 130, 131, and 132 with grades of "C" or better

Corequisite: RC 142

This course prepares students for transition into professional practice. Topics include ethical behaviors, resume writing, and professional attributes and dress for the respiratory care setting. Interviewing skills, professional test preparation for national licensing examinations, and practice examinations for the National Board of Respiratory Care's (NBRC) Therapist Multiple-Choice Examination (TMC) and Clinical Simulation Self Assessment Examinations (CSE) are also covered.

RC 142 Clinical Externship III

Units: 6

Hours: 324 hours LAB

Prerequisite: RC 130, 131, and 132 with grades of "C" or better

Corequisite: RC 140

Enrollment Limitation: Meet the health requirements of the Los Rios Community College District for Allied Health Programs and certification in Pediatric Advanced Life Support and Neonatal Resuscitation Program.

This course prepares for advanced practice of respiratory care. Topics include labor and delivery, neonatal intensive care, cardiac and medical intensive care, medical trauma management, application of pulmonary rehabilitation techniques, cardiopulmonary stress testing, sleep studies, and respiratory care techniques in the home setting. Additional topics include case studies in medical management.

RC 295 Independent Studies in Respiratory Care

Units: 1 - 3

Prerequisite: None.

RC 299 Experimental Offering in Respiratory Care

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Social Justice Studies

Overview

Starting Fall 2019 American River College is offering two Social Justice Studies degrees. Social Justice Studies is an interdisciplinary AA-T degree program that combines core courses in social justice with related coursework in a variety of disciplines, including History, English, Sociology, and Psychology.

Students in the program will:

- Research theoretical perspectives and critical theories on social justice
- Analyze power, privilege, and oppression
- Study historical origins of social justice
- Assess artistic works that examine oppression, power, and justice

Some of the core courses include:

- SJS 300 Introduction to Social Justice Studies
- SJS 310 Introduction to LGBTQ Studies
- SOC 320 Minorities in America
- SOC 342 Gender Relations in America

See a counselor for more details and a complete listing of all course options!

Degrees Offered

A.A.-T. in Social Justice Studies: Race and Ethnicity

A.A.-T. in Social Justice Studies: Women, Gender, and LGBTQ Studies

Dean: Matt Wright

Department Chair: Jeff Sacha

Phone: (916) 484-8283

Email: AskHB-PCS@arc.losrios.edu

Associate Degrees for Transfer

A.A.-T. in Social Justice Studies: Race and Ethnicity

The Associate in Arts in Social Justice Studies: Race and Ethnicity for Transfer (AA-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will

receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majors related to Race and Ethnicity at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, Â§66746):
â€¢ 60 semester or 90 quarter CSU-transferable units
â€¢ the California General Education Transfer Curriculum (Cal-GETC) pattern
â€¢ a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district
â€¢ obtain a minimum grade point average (GPA) of 2.0

All ADTs also require that students must earn a â€œCâ€ or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
SJS 300	Introduction to Social Justice Studies	3
SJS 310	Introduction to LGBTQ Studies	3
SOC 321	Race, Ethnicity and Inequality in the United States	3
List A:		
A minimum of 9 units from the following:		9
Select three courses from at least two of the following areas:		
Area 1: History or Government		
HIST 320	History of the United States: African-American Emphasis (3)	
HIST 321	History of the United States: African-American Emphasis (3)	
HIST 323	History of the United States: The American Indian Experience (3)	
HIST 325	History of Asian/Pacific Americans (3)	
HIST 327	History of the Chicano/Mexican American (3)	
Area 2: Arts and Humanities		
ENGLT 330	African American Literature (3)	
or ENGLT 486	Honors African American Literature (3)	
ENGLT 334	Asian-American Literature (3)	
ENGLT 335	Latino, Mexican-American, and Chicano Literature (3)	
ENGLT 338	Native American Literature (3)	
HUM 320	Asian Humanities (3)	
Area 3: Social Sciences		
ANTH 334	Native Peoples of North America (3)	
JOUR 320	Race and Gender in the Media (3)	
SOC 342	Gender Relations in American Society (3)	
SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	
Area 4: Quantitative Reasoning		
PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
or STAT C1000	Introduction to Statistics (4)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
Area 5: Major Preparation		
PSYC C1000	Introduction to Psychology (3)	
or PSYC C1000H	Introduction to Psychology - Honors (3)	
SOC 300	Introductory Sociology (3)	
or SOC 480	Introductory Sociology - Honors (3)	
Total Units:		**18**

The Associate in Arts in Social Justice Studies: Race and Ethnicity 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- research how theoretical perspectives and critical theories on social justice inform the social, political, economic, historical, and cultural circumstances surrounding justice as they relate to race and ethnicity as well as other intersectional aspects of life in society.
- define and analyze power and oppression to better understand how they operate at the individual, cultural, institutional, and systemic levels.
- explain how intersectional formations of social identity reflecting various levels of power and privilege impact social justice at the individual, cultural, institutional, and systemic levels.
- recognize the historical origins and similarities and differences in struggles for social justice among different ethnic and racial groups.
- assess artistic works that examine oppression, power, and justice as they relate to race and ethnicity.

Career Information

The AA-T degree provides students with a solid foundation in Social Justice Studies as well as prerequisites for upper division coursework leading to the baccalaureate degree in a variety of Areas of Emphasis. The degree gives students a pathway to possibilities, options, and baccalaureate degrees focusing on social justice. In addition, a student can use the AA-T in Social Justice Studies to get into a CSU and then complete a graduate degree in a related field. Students with degrees in this field often assume careers as (or in) the following: activists, community organizers, political campaigners, human rights groups, religious organizations, international agencies, lobbyists, and mediators. This program is also an excellent starting point for students interested in a career in law, law enforcement, social work, clinical psychology, social science, politics, business, education, or public policy.

A.A.-T. in Social Justice Studies: Women, Gender, and LGBTQ Studies

The Associate in Arts in Social Justice Studies: Women, Gender, and LGBTQ Studies for Transfer (AA-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majors related to Womenâ€™s Studies, Gender Studies, and/or Queer Studies at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, Â§66746):
â€¢ 60 semester or 90 quarter CSU-transferable units
â€¢ the California General Education Transfer Curriculum (Cal-GETC) pattern
â€¢ a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district
â€¢ obtain a minimum grade point average (GPA) of 2.0

All ADTs also require that students must earn a â€œCâ€ or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
SJS 300	Introduction to Social Justice Studies	3
SJS 310	Introduction to LGBTQ Studies	3
SOC 342	Gender Relations in American Society	3
List A:		
A minimum of 9 units from the following:		9
Select three courses from at least two of the following areas:		
Area 1: History or Government		
HIST 330	Women in American History (3)	
POLS 342	Women and Politics from a Global Perspective (3)	
Area 2: Arts and Humanities		
ENGLT 360	Women in Literature (3)	
ENGLT 365	Introduction to Gay, Lesbian, Bisexual and Transgender Literature (3)	
Area 3: Social Sciences		
ANTH 336	Anthropology of Sex, Sexuality and Gender (3)	
JOUR 320	Race and Gender in the Media (3)	
PSYC 356	Human Sexuality (3)	
PSYC 361	Psychology of Women in a Multicultural Society (3)	
SOC 321	Race, Ethnicity and Inequality in the United States (3)	
SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	
Area 4: Quantitative Reasoning		
PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	
or STAT C1000	Introduction to Statistics (4)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
Area 5: Major Preparation		
HIST 308	History of World Civilizations, 1500 to Present (3)	
PSYC C1000	Introduction to Psychology (3)	
or PSYC C1000H	Introduction to Psychology - Honors (3)	
SOC 300	Introductory Sociology (3)	
or SOC 480	Introductory Sociology - Honors (3)	
Total Units:		**18**

The Associate in Arts in Social Justice Studies: Women, Gender, and LGBTQ 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- research how theoretical perspectives and critical theories on social justice inform the social, political, economic, historical, and cultural circumstances surrounding justice as they relate to gender, sexuality, and race as well as other intersectional aspects of life in society.
- define and analyze power and oppression to better understand how they operate at the individual, cultural, institutional, and systemic levels.
- explain how intersectional formations of social identity reflecting various levels of power and privilege impact social justice at the individual, cultural, institutional, and systemic levels.
- recognize the historical origins and similarities and differences in struggles for social justice among diverse groups.
- assess artistic works and political achievements that expose oppression and injustice as they relate to women, gender, or the LGBTQ community.

Career Information

The AA-T degree provides students with a solid foundation in Social Justice Studies as well as prerequisites for upper division coursework leading to the baccalaureate degree in a variety of Areas of Emphasis. The degree gives students a pathway to possibilities, options, and baccalaureate degrees focusing on social justice. In addition, a student can use the AA-T in Social Justice Studies to get into a CSU and then complete a graduate degree in a related field. Students with degrees in this field often assume careers as (or in) the following: activists, community organizers, political campaigners, human rights groups, religious organizations, international agencies, lobbyists, and mediators. This program is also an excellent starting point for students interested in a career in law, law enforcement, social work, clinical psychology, any social science, politics, business, education, or public policy.

Social Justice Studies (SJS) Courses

SJS 299 Experimental Offering in Social Justice Studies

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

SJS 300 Introduction to Social Justice Studies

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID SJS 110

This interdisciplinary course introduces students to the theoretical and practical foundations of social justice and the social processes that create and resist oppression. It covers the sociology, history, and psychology of oppressions based upon race, ethnicity, class, gender, sexuality, and other group identities in the United States and the corresponding social justice movements for liberation. It investigates how creating and undoing asymmetrical power relations are linked to social structures, institutional processes, and culture. Additionally, it provides a basis for a better understanding of socioeconomic, political, and cultural conditions of key social groups in the United States. Topics include theoretical foundations of social justice and oppression, history and politics of group identity, culture and ideologies, forms of oppression, privilege, and forms of resistance. Field trips may be required.

SJS 310 Introduction to LGBTQ Studies

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID SJS 130

This course introduces students to Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) studies. It explores how LGBTQ individuals and communities are impacted by various social, cultural, historical, and political factors. Topics include politics of sexuality and sexual identities; forms of oppression including heterosexism, homophobia, and transphobia, as well as resistance to oppression, violence against LGBTQ individuals and communities, and queer activism. This course also includes contemporary issues in families, education, religion, and the law.

SJS 499 Experimental Offering in Social Justice Studies

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Social Science

Overview

A degree major is offered, including 18 units of university transfer-level work in addition to other graduation requirements. In addition there is an International Studies Certificate option, designed to benefit students who plan to seek careers or transfer with an international focus. The required courses will transfer as electives or lower division prerequisite for selected majors at the university level.

Degrees Offered

A.A. in Social Science

Dean: Matt Wright

Department Chair: Jeff Sacha

Phone: (916) 484-8283

Email: AskHB-PCS@arc.losrios.edu

Associate Degree

A.A. in Social Science

The Social Science degree provides an interdisciplinary approach to academic studies. The purpose of the program is for students to gain an understanding of the interconnectedness of various social and behavioral sciences. Students will study about themselves and others as members of a larger society. Topics and discussions to stimulate critical thinking about ways people have acted in response to their societies will allow students to evaluate how societies and social subgroups operate. With support from a counselor, this program can help students planning to transfer to the California State University or the University of California satisfy general education requirements and focus on transferable course work that relates to a specific major and/or individual interest.

Degree Requirements

Course Code	Course Title	Units
A minimum of 18 units from the following:		18
Select courses from at least 3 different disciplines.		
ADMJ 300	Introduction to Administration of Justice (3)	
ADMJ 302	Community Relations: Multicultural Issues (3)	
ADMJ 304	Juvenile Delinquency (3)	
ADMJ 320	Concepts of Criminal Law (3)	
ANTH 310	Cultural Anthropology (3)	
or ANTH 481	Honors Cultural Anthropology (3)	
ANTH 320	Introduction to Archaeology and World Prehistory (3)	
ANTH 321	Ancient Technology (3)	
ANTH 330	Magic, Witchcraft, and Religion (3)	
ANTH 333	American Indians of California (3)	
ANTH 334	Native Peoples of North America (3)	
ANTH 335	Research Methods in Anthropology (3)	
ANTH 336	Anthropology of Sex, Sexuality and Gender (3)	
ANTH 337	The Anthropology of Food (3)	
ANTH 341	Introduction to Linguistics (3)	
ANTH 370	Primatology (3)	
BUS 300	Introduction to Business (3)	
BUS 320	Concepts in Personal Finance (3)	
or ECON 320	Concepts in Personal Finance (3)	
BUS 330	Managing Diversity in the Workplace (3)	
COMM C1004	Interpersonal Communication (3)	
COMM 325	Intercultural Communication (3)	
DEAF 351	Introduction to American Deaf Culture (3)	
DEAF 352	Introduction to American Deaf Education (3)	
DEAF 355	Audism and Inequality of the Deaf (3)	
ECE 312	Child Development (3)	
or PSYC 372	Child Development (3)	
ECE 314	The Child, the Family and the Community (3)	
ECE 325	Positive Guidance Strategies with Young Children (3)	
ECE 330	Infant and Toddler Development (3)	
ECE 430	Culture and Diversity in Early Childhood Education (3)	
ECON C2002	Principles of Macroeconomics (3)	
ECON C2001	Principles of Microeconomics (3)	
ECON 305	Introduction to Economies of Africa (3)	
ENGLT 365	Introduction to Gay, Lesbian, Bisexual and Transgender Literature (3)	
ETHNS 300	Introduction to Ethnic Studies (3)	
ETHNS 320	Introduction to African American Studies (3)	
ETHNS 330	Introduction to Asian American Studies (3)	
ETHNS 350	Introduction to Native American Studies (3)	

Course Code	Course Title	Units
ETHNS 360	Introduction to Chicana/o/x Studies (3)	
GEOG 310	Human Geography: Exploring Earth's Cultural Landscapes (3)	
GEOG 320	World Regional Geography (3)	
GEOG 322	Geography of California (3)	
GERON 303	Introduction to Social Gerontology: Aging in Contemporary Society (3)	
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
GERON 306	Health, Wellness, and the Aging Process (3)	
GLST 301	Introduction to Global Studies (3)	
GLST 302	Global Issues (3)	
HCD 390	Identity and Psychosocial Well-Being (3)	
HIST 300	History of Europe and the Mediterranean to 1500 (3)	
or HIST 480	History of Western Civilization - Honors (3)	
HIST 302	History of Europe Since 1500 (3)	
or HIST 481	History of Western Civilization - Honors (3)	
HIST 305	Women in Western Civilization (3)	
HIST 307	History of World Civilizations to 1500 (3)	
HIST 308	History of World Civilizations, 1500 to Present (3)	
HIST C1001	United States History to 1877 (3)	
or HIST C1001H	United States History to 1877 - Honors (3)	
HIST C1002	United States History since 1865 (3)	
or HIST C1002H	United States History since 1865 - Honors (3)	
HIST 318	American Intellectual and Cultural History (3)	
HIST 320	History of the United States: African-American Emphasis (3)	
HIST 321	History of the United States: African-American Emphasis (3)	
HIST 323	History of the United States: The American Indian Experience (3)	
HIST 325	History of Asian/Pacific Americans (3)	
HIST 327	History of the Chicano/Mexican American (3)	
HIST 330	Women in American History (3)	
HIST 332	Women in American History (To 1877) (3)	
HIST 333	Women in American History (1865-Present) (3)	
HIST 340	History of California through 1879 (3)	
HIST 341	History of California: 1879 to Present (3)	
HIST 353	History of the Islamic World (3)	

Course Code	Course Title	Units
HIST 364	Asian Civilization (3)	
HIST 365	Asian Civilization (3)	
HIST 367	History of Russia (3)	
HIST 373	History of Mexico (3)	
HIST 374	History of Latin America to 1830 (3)	
HIST 375	The History of Modern Latin America and Caribbean (3)	
INDIS 351	Italian Life and Culture in Study Abroad (3)	
INDIS 353	Spanish Life and Culture in Study Abroad (3)	
INDIS 355	United Kingdom Life and Culture in Study Abroad (3)	
IS 305	Introduction to Middle East Studies (3)	
IS 310	Peace and Conflict (3)	
IS 312	Current Global Development Issues (3)	
JOUR 310	Mass Media and Society (3)	
JOUR 320	Race and Gender in the Media (3)	
NATR 307	Principles of Sustainability (4)	
NUTRI 310	Cultural Foods of the World (3)	
or NUTRI 481	Honors - Cultural Foods of the World (3)	
PHIL 360	Social/Political Philosophy (3)	
POLS C1000	American Government and Politics (3)	
or POLS C1000H	American Government and Politics - Honors (3)	
POLS 302	Comparative Politics (3)	
POLS 304	Introduction to Government: California (3)	
POLS 310	Introduction to International Relations (3)	
or POLS 480	Introduction to International Relations - Honors (3)	
POLS 320	Introduction to Political Theory (3)	
POLS 330	Constitutional Rights (3)	
POLS 342	Women and Politics from a Global Perspective (3)	
PSYC C1000	Introduction to Psychology (3)	
or PSYC C1000H	Introduction to Psychology - Honors (3)	
PSYC 305	Psychology Applied to Modern Life (3)	
PSYC 320	Social Psychology (3)	
PSYC 335	Research Methods in Psychology (3)	
PSYC 340	Abnormal Behavior (3)	
or PSYC 481	Honors Abnormal Behavior (3)	
PSYC 354	The Psychology of Family Life and Intimate Relationships in a Diverse Society (3)	
PSYC 356	Human Sexuality (3)	

Course Code	Course Title	Units
PSYC 361	Psychology of Women in a Multicultural Society (3)	
PSYC 370	Human Development: A Life Span (3)	
PSYC 373	Child Psychology (3)	
PSYC 390	Psychology of Death and Dying (3)	
PSYC 415	Studying in London: Psychological Elements of British Life and Culture (3)	
SJS 300	Introduction to Social Justice Studies (3)	
SJS 310	Introduction to LGBTQ Studies (3)	
SOC 300	Introductory Sociology (3)	
or SOC 480	Introductory Sociology - Honors (3)	
SOC 301	Social Problems (3)	
SOC 302	Introduction to Social Research Methods (3)	
SOC 309	Self and Society (3)	
SOC 318	Introduction to Crime, Deviance, and Social Control (3)	
SOC 321	Race, Ethnicity and Inequality in the United States (3)	
SOC 325	Chicano Culture (3)	
SOC 335	Sociology of Aging (3)	
SOC 342	Gender Relations in American Society (3)	
SOC 350	Sociology of Popular Culture (3)	
SWCD 300	Introduction to Social Work (3)	
SWCD 330	Issues of Diverse Populations (3)	
or PSYC 365	Issues of Diverse Populations (3)	
Total Units:		**18**

The Social Science Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- apply critical thinking skills in evaluating sociological, historical, and psychological phenomena.
- demonstrate an understanding of the theories and methods employed in the social and behavioral sciences.
- evaluate how societies and social groups operate.
- develop a personal interpretation about issues and matters under study.
- identify and explain various forces that interact to shape events and social occurrences.
- define and describe issues and events within an interdisciplinary perspective.

Social Science (SOCSC) Courses

SOCSC 299 Experimental Offering in Social Science

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

SOCSC 495 Independent Studies in Social Science

Units: 1 - 3

Prerequisite: None.

Transferable: CSU

SOCSC 499 Experimental Offering in Social Science

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Social Work and Chemical Dependency

Overview

The Social Work program provides preparation for employment as a paraprofessional aide with agencies such as correctional institutions, parole, probation, welfare, rehabilitation, mental health, schools, and childcare centers.

A special option is Chemical Dependency Studies, which provides preparation for paraprofessional work with public or private agencies dealing with chemical dependency and addiction.

Degrees and Certificates Offered

A.A. in Chemical Dependency Studies

A.A. in Social Work

Chemical Dependency Studies Certificate

Mental Behavioral Health Certificate

Social Work Certificate

Dean: Matt Wright

Department Co-Chairs: Andréa Pantoja-Garvey, PhD
Mieke San Julian, MA, BCBA, LBA

Email: PCS-PSYC-Chair@arc.losrios.edu

Associate Degrees

A.A. in Chemical Dependency Studies

The degree program in Chemical Dependency Studies centers around the specific skills and abilities necessary to provide comprehensive drug and alcohol counseling. Course work includes the twelve counselor core function applications in addiction screening: intake, assessment, orientation, counseling, crisis intervention, consultation, client's education, client's rights, confidentiality, professional ethics, and reports and record keeping.

Degree Requirements

Course Code	Course Title	Units
HEED 310	Heartsaver First Aid, Adult and Pediatric CPR and AED	1
PSYC C1000	Introduction to Psychology (3)	3
or PSYC 305	Psychology Applied to Modern Life (3)	
or PSYC C1000H	Introduction to Psychology - Honors (3)	
PSYC 340	Abnormal Behavior (3)	3
or PSYC 481	Honors Abnormal Behavior (3)	
SWCD 300	Introduction to Social Work	3
SWCD 310	Ethical Issues and Client's Rights	3
SWCD 330	Issues of Diverse Populations (3)	3
or PSYC 365	Issues of Diverse Populations (3)	
SWCD 340	Introduction to Chemical Dependency (3)	3
or PSYC 400	Introduction to Chemical Dependency (3)	
SWCD 341	Physiology and Pharmacology: Alcohol & Other Drugs (3)	3
or PSYC 401	Physiology and Pharmacology: Alcohol & Other Drugs (3)	
SWCD 342	Alcoholism: Intervention, Treatment & Recovery (3)	3[1]
or PSYC 402	Alcoholism: Intervention, Treatment & Recovery (3)	
SWCD 360	Techniques of Interviewing and Counseling	3
SWCD 362	Practices in Social Work and Chemical Dependency	3
SWCD 365	Techniques of Group Counseling	3[2]
A minimum of 4 units from the following:		4[3]
SWCD 498	Work Experience in Social Work and Chemical Dependency (0.5 - 4)	
Total Units:		**38**

[1]If this course is not completed prior to enrolling in SWCD 362 and 498 (formerly HSER), it must be taken as a corequisite to those courses.

[2]If this course is not completed prior to enrolling in SWCD 362 and 498 (formerly HSER), it must be taken as a corequisite to those courses.

[3]Chemical Dependency Certificate or AA students must complete a minimum of 255 internship hours for SWCD 498.

The Chemical Dependency Studies Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate the components of a quality chemical dependency counseling program.
- demonstrate the twelve essential counseling skills as they apply to chemical dependency and recovery processes.

- utilize counseling strategies based on examination of scientific theories of addiction.
- identify the community resources used in assisting clients with addiction issues.
- appraise and apply the knowledge of California Professional Codes of Ethics for Drug and Alcohol counselors.
- evaluate one's own values and attitudes as they apply to ethical decision making.
- demonstrate appropriate interpersonal and social skills in interactions with a diverse population using principles of equity, social justice, and inclusion.

Career Information

Upon completion of the A.A. degree a student possesses the coursework required for initial certification as a California drug and alcohol counselor (CDAC).

A.A. in Social Work

The A.A. degree program in Social Work centers around the broad array of entry level skills and abilities effectively used in social service delivery systems. Coursework includes the twelve helper core function applications in client screening, intake, assessment, orientation, counseling, consultation, client's rights, confidentiality, crisis intervention, client's education, professional ethics, and reports and record keeping.

Degree Requirements

Course Code	Course Title	Units
HEED 310	Heartsaver First Aid, Adult and Pediatric CPR and AED	1
PSYC C1000	Introduction to Psychology (3)	3
or PSYC 305	Psychology Applied to Modern Life (3)	
or PSYC C1000H	Introduction to Psychology - Honors (3)	
PSYC 340	Abnormal Behavior (3)	3
or PSYC 481	Honors Abnormal Behavior (3)	
SOC 300	Introductory Sociology (3)	3
or SOC 480	Introductory Sociology - Honors (3)	
SWCD 300	Introduction to Social Work	3
SWCD 310	Ethical Issues and Client's Rights	3
SWCD 330	Issues of Diverse Populations (3)	3
or PSYC 365	Issues of Diverse Populations (3)	
SWCD 340	Introduction to Chemical Dependency (3)	3
or PSYC 400	Introduction to Chemical Dependency (3)	
SWCD 360	Techniques of Interviewing and Counseling	3
SWCD 362	Practices in Social Work and Chemical Dependency	3
SWCD 365	Techniques of Group Counseling	3[1]
A minimum of 2 units from the following:		2
These units do not need to be taken in one semester.		
SWCD 498	Work Experience in Social Work and Chemical Dependency (0.5 - 4)	
Total Units:		**33**

[1]If this course is not completed prior to enrolling in SWCD 362 and 498 (formerly HSER), it must be taken as a corequisite to those courses.

The Social Work Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- define the functions of social service delivery systems.
- analyze public policy issues, complexities and controversies affecting social service agencies and their clients.
- integrate different theoretical approaches in working with clients.
- identify the community resources used in assisting clients.
- appraise and apply the knowledge of existing California professional codes of ethics for the helping professions.
- describe the application of clients' rights in the social service delivery system.
- evaluate one's own values and attitudes as they apply to ethical decision making.
- demonstrate appropriate interpersonal and social skills in interactions with a diverse population using principles of equity, social justice, and inclusion.

Certificates of Achievement

Chemical Dependency Studies Certificate

The certificate program in Chemical Dependency Studies centers around the specific skills and abilities necessary to provide comprehensive drug and alcohol counseling. Course

work includes the twelve counselor core function applications in addiction screening: intake, assessment, orientation, counseling, crisis intervention, consultation, client's education, client's rights, confidentiality, professional ethics, and reports and record keeping.

Certificate Requirements

Course Code	Course Title	Units
HEED 310	Heartsaver First Aid, Adult and Pediatric CPR and AED	1
PSYC C1000	Introduction to Psychology (3)	3
or PSYC 305	Psychology Applied to Modern Life (3)	
or PSYC C1000H	Introduction to Psychology - Honors (3)	
PSYC 340	Abnormal Behavior (3)	3
or PSYC 481	Honors Abnormal Behavior (3)	
SWCD 300	Introduction to Social Work	3
SWCD 310	Ethical Issues and Client's Rights	3
SWCD 330	Issues of Diverse Populations (3)	3
or PSYC 365	Issues of Diverse Populations (3)	
SWCD 340	Introduction to Chemical Dependency (3)	3
or PSYC 400	Introduction to Chemical Dependency (3)	
SWCD 341	Physiology and Pharmacology: Alcohol & Other Drugs (3)	3
or PSYC 401	Physiology and Pharmacology: Alcohol & Other Drugs (3)	
SWCD 342	Alcoholism: Intervention, Treatment & Recovery (3)	3[1]
or PSYC 402	Alcoholism: Intervention, Treatment & Recovery (3)	
SWCD 360	Techniques of Interviewing and Counseling	3
SWCD 362	Practices in Social Work and Chemical Dependency	3
SWCD 365	Techniques of Group Counseling	3[2]
A minimum of 4 units from the following:		4[3]
SWCD 498	Work Experience in Social Work and Chemical Dependency (0.5 - 4)	
Total Units:		**38**

[1]If this course is not completed prior to enrolling in SWCD 362 and 498 (formerly HSER), it must be taken as a corequisite to those courses.

[2]If this course is not completed prior to enrolling in SWCD 362 and 498 (formerly HSER), it must be taken as a corequisite to those courses.

[3]Chemical Dependency Certificate or AA students must complete a minimum of 255 internship hours for SWCD 498.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate the components of a quality chemical dependency counseling program.
- demonstrate the twelve essential counseling skills as they apply to chemical dependency and recovery processes.
- utilize counseling strategies based on examination of scientific theories of addiction.
- identify the community resources used in assisting clients with addiction issues.
- appraise and apply the knowledge of California Professional Codes of Ethics for Drug and Alcohol counselors.
- evaluate one's own values and attitudes as they apply to ethical decision making.
- demonstrate appropriate interpersonal and social skills in interactions with a diverse population using principles of equity, social justice, and inclusion.

Career Information

Upon completion of the certificate a student possesses the coursework required for initial certification as a California drug and alcohol counselor (CDAC).

Mental Behavioral Health Certificate

The Apprenticeship certificate program in Mental Behavioral Health centers around the specific skills and abilities necessary to provide comprehensive mental behavioral health counseling. Course work includes chemical dependency, abnormal behavior, co-occurring disorders, confidentiality, professional ethics, diversity, managing crises, and client screening, education, and counseling. Upon completion of the certificate students will be equipped for entry level counseling and case management positions in behavioral health programs that treat individuals with persistent mental illness.

Certificate Requirements

Course Code	Course Title	Units
BUSTEC 126	Outlook: Basics (1)	1
or CISA 126	Outlook: Basics (1)	
PSYC C1000	Introduction to Psychology (3)	3
PSYC 340	Abnormal Behavior	3
SWCD 300	Introduction to Social Work	3
SWCD 310	Ethical Issues and Client's Rights	3

Course Code	Course Title	Units
SWCD 330	Issues of Diverse Populations (3)	3
or PSYC 365	Issues of Diverse Populations (3)	
SWCD 340	Introduction to Chemical Dependency (3)	3
or PSYC 400	Introduction to Chemical Dependency (3)	
SWCD 360	Techniques of Interviewing and Counseling	3
SWCD 365	Techniques of Group Counseling	3
A minimum of 16 units from the following:		16
APPRT 498	Work Experience in Apprenticeable (Occupation) (0.5 - 6)	
or SWCD 498	Work Experience in Social Work and Chemical Dependency (0.5 - 4)	
Total Units:		**41**

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- High School graduate or GED
- Engaged in learning a designated occupation and who has entered into a written apprentice agreement to participate in an apprenticeship program for a designated occupation under Department of Apprenticeship Standards. Apprentice agreement must be approved by the apprenticeship committee.

Enrollment Process

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

- Apprentice selection process - Facilitated by the Joint Apprenticeship Committee (JAC): Application, aptitude assessment, interview with JAC and participating employer, selection and confirmation, apprentice and employer notification.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- critically examine the psychological, physiological, and sociocultural issues related to substance use, misuse, and abuse.
- describe specific mental, emotional, and behavioral difficulties.
- analyze existing California Professional Codes of Ethics.
- evaluate and apply appropriate approaches in dealing with a variety of problems including but not limited to: mental illness, addiction, housing, unemployment, and relationship distress.
- develop and implement culturally responsive prevention, intervention, and/or resolution to identified issues and problems affecting diverse populations.

Social Work Certificate

The certificate in Social Work centers around the broad array of entry level skills and abilities effectively used in social service delivery systems. Coursework includes the twelve helper core function applications in client screening, intake, assessment, orientation, counseling, consultation, client's rights, confidentiality, crisis intervention, client's education, professional ethics, and reports and record keeping.

Certificate Requirements

Course Code	Course Title	Units
HEED 310	Heartsaver First Aid, Adult and Pediatric CPR and AED	1
PSYC C1000	Introduction to Psychology (3)	3
or PSYC 305	Psychology Applied to Modern Life (3)	
or PSYC C1000H	Introduction to Psychology - Honors (3)	
PSYC 340	Abnormal Behavior (3)	3
or PSYC 481	Honors Abnormal Behavior (3)	
SOC 300	Introductory Sociology (3)	3
or SOC 480	Introductory Sociology - Honors (3)	
SWCD 300	Introduction to Social Work	3
SWCD 310	Ethical Issues and Client's Rights	3
SWCD 330	Issues of Diverse Populations (3)	3
or PSYC 365	Issues of Diverse Populations (3)	
SWCD 340	Introduction to Chemical Dependency (3)	3
or PSYC 400	Introduction to Chemical Dependency (3)	
SWCD 360	Techniques of Interviewing and Counseling	3
SWCD 362	Practices in Social Work and Chemical Dependency	3
SWCD 365	Techniques of Group Counseling	3[1]
A minimum of 2 units from the following:		2
These units do not need to be taken in one semester.		
SWCD 498	Work Experience in Social Work and Chemical Dependency (0.5 - 4)	
Total Units:		**33**

[1]If this course is not completed prior to enrolling in SWCD 362 and 498 (formerly HSER), it must be taken as a corequisite to those courses.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- define the functions of social service delivery systems.
- analyze public policy issues, complexities and controversies affecting social service agencies and their clients.
- integrate different theoretical approaches in working with clients.
- identify the community resources used in assisting clients.
- appraise and apply the knowledge of existing California professional codes of ethics for the helping professions.
- describe the application of clients' rights in the social service delivery system.
- evaluate one's own values and attitudes as they apply to ethical decision making.
- demonstrate appropriate interpersonal and social skills in interactions with a diverse population using principles of equity, social justice, and inclusion.

Social Work and Chemical Dependency (SWCD) Courses

SWCD 299 Experimental Offering in Social Work and Chemical Dependency

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

SWCD 300 Introduction to Social Work

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4

C-ID: C-ID SWHS 110

This course is a comprehensive overview of the fields of social work, human services, and mental health in public and private agencies. Students examine the historical policies, legislative acts, key individuals and social circumstances that shaped human services, social work and mental health within the United States. The emphasis of this course is placed on knowledge, skills and abilities in the understanding of roles as health workers, developing competence in culturally-responsive practices, enhancing and developing communication skills in the helping field, and examining attitudes and values that enhance effective intervention in problem situations. It also emphasizes the roles and skills of associate professionals, such as but not limited to drug and alcohol counselors, mental health workers, activity directors with the elderly, and adolescent and child welfare assistants. It is required that students volunteer at an off-campus site location for 8 hours. Additionally, students will also explore the various career and academic pathways in the field. This course was previously known as HSER 300 and is not open to students who successfully completed that course.

SWCD 310 Ethical Issues and Client's Rights

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Corequisite: SWCD 300

Transferable: CSU

This course is a comprehensive exploration of the basic ethical issues involving social work delivery. Topics include professional ethics, confidentiality, counselor and clients' rights, and other areas involving ethical controversies. This course was previously known as HSER 310 and is not open to students who successfully completed that course.

SWCD 330 Issues of Diverse Populations

Same As: PSYC 365

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

This course is a study of the values, problems, issues, concerns, and counseling needs of diverse populations by race, ethnicity, class, gender, sexual orientation, gender identity, physical/cognitive/emotional/developmental ability, and age. It also explores the cognitive and emotional aspects of prejudice as it relates to interpersonal, cultural, and institutional discrimination. This course was previously known as HSER 330 and is not open to students who successfully completed that course or to students who have completed PSYC 365.

SWCD 340 Introduction to Chemical Dependency

Same As: PSYC 400

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L7B

This course examines the biopsychosociocultural effects of chemical dependency on the individual and the family. It includes an analysis of alcohol and drug use; misuse and abuse across age, gender, sexuality, race, ethnicity, and economic conditions contributing to substance abuse; and a description of community efforts at prevention and treatment. This course was previously known as HSER 340 and is not open to students who successfully completed that course or to students who have completed PSYC 400.

SWCD 341 Physiology and Pharmacology: Alcohol & Other Drugs

Same As: PSYC 401

Units: 3

Hours: 54 hours LEC

Prerequisite: PSYC 400 or SWCD 340 with a grade of "C" or better

Transferable: CSU; UC

This course is a study of the absorption, metabolism, and the mechanism of action of alcohol and other psychoactive drugs including opiates, stimulants, depressants, cannabinoids, and psychedelics. It includes the pharmacological mechanisms as well as the social and psychological implications of tolerance, habituation, and substance abuse of the user and abuser. This course was previously known as HSER 341 and is not open to students who successfully completed that course or to students who have completed PSYC 401.

SWCD 342 Alcoholism: Intervention, Treatment & Recovery

Same As: PSYC 402

Units: 3

Hours: 54 hours LEC

Prerequisite: PSYC 401 or SWCD 341 with a grade of "C" or better

Transferable: CSU

This course is a study and evaluation of techniques used in the treatment of alcohol dependency. This course will cover both physical and psychological effects of alcohol use, abuse and the impact on family and society. Topics include prevention, intervention, individual and group counseling, detoxification, twelve-step program, therapeutic communities, aftercare programs, harm reduction and addressing high risk drinking. This course was previously known as HSER 341 and is not open to students who successfully completed that course or to students who have completed PSYC 402.

SWCD 360 Techniques of Interviewing and Counseling

Units: 3

Hours: 54 hours LEC

Prerequisite: SWCD 300 with a grade of "C" or better

Corequisite: SWCD 310

Transferable: CSU

The course includes: a survey of interview and counseling techniques appropriate for paraprofessionals in mental health, corrections, and substance abuse counseling. It includes case management practices and skills. Practices and skills include: interviewing techniques, using assessment forms, developing treatment plans, monitoring referrals, notetaking and documentation, learning and practicing effective communication. This course was previously known as HSER 360 and is not open to students who successfully completed that course.

SWCD 362 Practices in Social Work and Chemical Dependency

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Corequisite: SWCD 365 and 498; Students must take HSER/SWCD 498 (Work Experience in Human Services) concurrently unless they are in the second semester of their Chemical Dependency internship and have already successfully completed HSER/SWCD 365 (Techniques of Group Counseling).

Enrollment Limitation: Completion of the American River College Human Services process for doing an internship.

Transferable: CSU

This course provides advanced study and applied integration of human services theory to prepare students for field experience. It covers techniques in applying concepts, values,

and skills acquired in other core courses related to the process of helping others. Students must take HSER/SWCD 498 concurrently unless they are in the second semester of their Chemical Dependency internship and have already successfully completed HSER/SWCD 365. This course was previously known as HSER 362 and is not open to students who successfully completed that course.

SWCD 365 Techniques of Group Counseling

Units: 3

Hours: 54 hours LEC

Prerequisite: SWCD 360 with a grade of "C" or better

Transferable: CSU

This course covers the basic elements of group counseling with the goal of developing effective techniques for conducting groups. Ethical issues are compared and analyzed. Emphasis is on the use of facilitating skills, exploring group dynamics, understanding group procedures and knowledge of the stages of group process. This course was previously known as HSER 365 and is not open to students who successfully completed that course.

SWCD 495 Independent Studies in Social Work and Chemical Dependency

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

SWCD 498 Work Experience in Social Work and Chemical Dependency

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Human Services Program faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of human services. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

SWCD 499 Experimental Offering in Social Work and Chemical Dependency

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Sociology

Overview

The ARC Sociology department offers courses that prepare students to research, understand, and change our social world using the sociological perspective and scientific method. Our faculty are enthusiastic about introducing students to the sociological imagination and subfields such as sociological research methods, crime/law/deviance, race/ethnicity, media and popular culture, sociological theory, gender and sexuality, and social psychology. Students leave our classes with the ability to think critically about society, engage with data to understand our social world, explore/critique/craft theories of how the social world works, articulate sources of social inequality, and propose solutions to social problems. Our courses strive to make students competitive applicants in fields such as social work, community planning and organizing/activism, human services, education, user experience (UX) research, criminal justice, for-profit and non-profit organizations, and government agencies.

Degrees Offered

A.A.-T. in Sociology

Dean: Matt Wright

Department Chair: Jeff Sacha

Phone: (916) 484-8283

Email: AskHB-PCS@arc.losrios.edu

Associate Degree for Transfer

A.A.-T. in Sociology

The Associate in Arts in Sociology for Transfer (AA-T) provides students with a major that fulfills the general requirements of a California State University for transfer. Students with this degree will receive priority admission with junior status to the California State University system and learn the fundamental principles and practices of Sociology in order to create a solid foundation for their future personal and academic endeavors. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Sociology at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, Â§66746):
â€¢ 60 semester or 90 quarter CSU-transferable units
â€¢ the California General Education Transfer Curriculum (Cal-GETC) pattern
â€¢ a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district
â€¢ obtain a minimum grade point average (GPA) of 2.0

All ADTs also require that students must earn a â€œCâ€ or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
SOC 300	Introductory Sociology (3)	3
or SOC 480	Introductory Sociology - Honors (3)	
SOC 301	Social Problems	3
PSYC 330	Introductory Statistics for the Behavioral Sciences (3)	3 - 4
or STAT C1000	Introduction to Statistics (4)	
or STAT C1000H	Introduction to Statistics - Honors (4)	
List A:		
A minimum of 6 units from the following:		6
SOC 302	Introduction to Social Research Methods (3)	
or PSYC 335	Research Methods in Psychology (3)	
SOC 309	Self and Society (3)	
SOC 318	Introduction to Crime, Deviance, and Social Control (3)	
SOC 321	Race, Ethnicity and Inequality in the United States (3)	
SOC 325	Chicano Culture (3)	
SOC 342	Gender Relations in American Society (3)	
SOC 350	Sociology of Popular Culture (3)	
List B:		
A minimum of 3 units from the following:		3
Any course from List A not already used or		
ANTH 310	Cultural Anthropology (3)	
or ANTH 481	Honors Cultural Anthropology (3)	
PSYC C1000	Introduction to Psychology (3)	
or PSYC C1000H	Introduction to Psychology - Honors (3)	
SOC 335	Sociology of Aging (3)	
Total Units:		**18 - 19**

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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- differentiate between scientifically-based sociological knowledge and hear-say, personal beliefs, and opinions.
- compare and contrast the major theoretical perspectives in sociology.
- define basic sociological terms and concepts regarding the nature of social life, social structures, socio-economic, political, and cultural institutions.
- analyze various sociological perspectives and their relevance to the understanding of social life in general and personal life in particular.
- construct and evaluate sociological data, utilize the scientific method, draw reasonable conclusions.
- identify and understand the ethical implications involved in research and their impact on social policy/public policies.
- apply sociological principles and theories to everyday life situations in regard to interaction with people from diverse backgrounds in a just, equitable, and inclusive manner.

Career Information

The Sociology degree is designed to facilitate students' successful transfer to four-year colleges that prepare them for advanced study in a variety of graduate programs as well as a variety of career opportunities in social work, law, criminology, law enforcement, teaching, health services, urban planning and development, and research.

Sociology (SOC) Courses

SOC 300 Introductory Sociology

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID SOCI 110

This course was formerly known as SOC 300 Introductory Sociology.

This course examines principles and basic concepts in sociology. It includes the study of institutions, culture, social organization, group interaction, social stratification, economy, politics, social movements, and urbanization. This course is not open to students who have completed SOC 480.

SOC 301 Social Problems

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID SOCI 115

This course examines contemporary social problems in the US within a theoretical and global context. It examines the role and the structure of power and ideology in shaping our understanding and approach to social problems. This course supports students to include a critical analysis of their causes, consequences as well as an evaluation of proposed solutions and methods of treatment. Attention is directed to poverty and inequality, race and gender inequalities, problems of the environment, unequal access to education as well as problems in the economic and political systems and the impact of globalization on these problems.

SOC 302 Introduction to Social Research Methods

Units: 3

Hours: 54 hours LEC

Prerequisite: SOC 300 with a grade of "C" or better

Advisory: PSYC 330 or STAT C1000 with a grade of "C" or better; and ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340 with a grade of "C" or better

Transferable: CSU; UC

General Education: Local GE L1B; Local GE L4; Cal-GETC Area 4

C-ID: C-ID SOCI 120

This course examines basic principles and methods of sociological research, application and critique of major research methods, including survey, ethnographic, experimental and historical comparative analysis. It emphasizes the fundamental components of sociological

research design such as theory, hypothesis, data collection, and variables. Ethical, ideological, and political implications of social research are also considered.

SOC 309 Self and Society

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course introduces concepts, social theories, and methods used to analyze how the sense of self is created in everyday life. It explores various theories of the development of self, the nature of human behavior, the importance of language for perception and thought, and reality as a social construction. Additionally, it examines how the self emerges and is maintained through social interaction and our involvement in social relationships. It includes the study of social identity, roles, socialization, identity change, and emotions.

SOC 318 Introduction to Crime, Deviance, and Social Control

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID SOCI 160

This course introduces various sociological perspectives regarding issues of crime, deviance, and social control. Particular attention is paid to the analysis of how laws and cultural norms shape the definition and meaning of crime and deviance. Topics covered include street crimes, corporate crimes, white-collar crimes, domestic violence, drugs and alcohol abuse, lifestyle crimes, prison systems, capital punishment, rehabilitation, and the trend towards privatization of prisons. Field trips may be required.

SOC 321 Race, Ethnicity and Inequality in the United States

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID SOCI 150

In this course, students are invited to examine patterns of racial and ethnic group relations in the United States of America. This course utilizes basic sociological approaches to study race and ethnicity and includes an emphasis on a comparative and intersectional analysis of historical, social, political, and economic factors affecting intergroup and intragroup dynamics and current political and social issues. Using multiple perspectives, students will explore topics that include prejudice, discrimination, racism, anti-racism, racialization, racial and ethnic stratification, inequality, intersectionality, demographic shifts, colonization, decolonization, oppression, liberation, civil rights, and other related topics. Course focus will be on Native Americans, African Americans, Latinx peoples, Asian and Pacific Islander Americans, and European Americans. A variety of different learning activities will be included. Any course-related field trips will not be mandatory and alternative assignments will be offered.

SOC 325 Chicano Culture

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course is an introduction to fundamental concepts, social theories, and methods used to understand and critically analyze the production, adaptation, and construction of Chicano identity and Chicano culture within the United States. It includes micro and macro sociological analysis of Chicano culture and its relationship to Chicano social identity, social inequality, and social change.

SOC 335 Sociology of Aging

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: ENGWR 102 and ENGRD 116 with a grade of “C” or better; OR ESLR 320 and ESLW 320 with a grade of “C” or better.

Transferable: CSU; UC (UC credit limitation: SOC 335, GERON 302 and PSYC 374 combined: maximum credit, 1 course)

General Education: Local GE L4; Local GE L7B

This course examines the aged and aging process with emphasis on social factors affecting and affected by an aging population. It includes an analysis of demographics, history of aging in America, social conditions, resources and support systems, employment, retirement, and social class/cultural differences.
This course is not open to students who have completed GERON 300.

SOC 342 Gender Relations in American Society

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L4; Local GE L7B; Cal-GETC Area 4

C-ID: C-ID SOCI 140

This course deals with gender relations in American society. It examines historical, social, economic, political, and cultural forces in shaping gender identity, gender roles, and gender expectations. This course utilizes sociological theories to explain gender experiences as socially constructed rather than biologically determined. Specifically, it examines the experiences of people of diverse economic, racial, and ethnic backgrounds within historical and cross-cultural perspectives. This course includes analysis and discussion of topics such as gender relations in the home, workplace, mass media, health care system, and politics.

SOC 350 Sociology of Popular Culture

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

This course analyzes the historical development and emergence of American popular culture and the relationship between contemporary popular culture, social institutions and social behavior. Further, it explores popular culture within the context of social, political, technological, and economic changes in the United States and includes an analysis of sociological theories of popular culture, social media, advertising, music, and film.

SOC 480 Introductory Sociology - Honors

Units: 3

Hours: 54 hours LEC

Prerequisite: Placement into ENGL C1000H (formerly ENGWR 480) through the Los Rios placement process OR guided self-placement.

Transferable: CSU; UC

General Education: Local GE L4; Cal-GETC Area 4

C-ID: C-ID SOCI 110

This course was formerly known as SOC 480 Introductory Sociology - Honors.

This course provides an in-depth examination of society and human behavior from various sociological perspectives. Sociological theories, both macro and micro, are applied to different aspects of life including culture, social stratification and inequality, social change, politics, economy, and deviance. The course is conducted as a seminar in which students will be responsible for developing in-depth analysis and understanding of issues based on classical and contemporary sociological theories. This course is designed for those from all academic disciplines who are motivated to learn sociological perspectives and how they apply to aspects of human experience both at the individual and societal levels. This course is not open to students who have successfully completed SOC 300.

SOC 495 Independent Studies in Sociology

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

SOC 499 Experimental Offering in Sociology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Sociology (SOCI) Courses

SOCI 299 Experimental Offering in Sociology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

SOCI 499 Experimental Offering in Sociology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Speech-Language Pathology

Overview

The Speech Language Pathology degree program prepares students to assist Speech-Language Pathologists in treating disorders of communication. Such disorders may be related to articulation and phonology, child and adult language, motor speech, voice, fluency, and hearing.

Topics include an introduction to the field of communication disorders, articulation and phonology for the speech-language pathology assistant (SLPA), professional issues and practices in speech-language pathology, speech/language/hearing clinical strategies, clinical considerations in service delivery to clients with communication disorders, and fieldwork experience.

Degrees and Certificates Offered

A.S. in Speech-Language Pathology Assistant Program

SLPA Core Curriculum Certificate Certificate

SLPA Specialization: Adult Neurogenic Certificate

SLPA Specialization: Early Intervention Certificate

SLPA Specialization: School Age Certificate

Dean: Narinedat Madramootoo

Department Chair: Kristina Zajic

Phone: (916) 484-8902

Email: askhb-healthed@arc.losrios.edu

Associate Degree

A.S. in Speech-Language Pathology Assistant Program

This degree prepares students to assist Speech-Language Pathologists in treating disorders of communication. Such disorders may be related to articulation and phonology, child and adult language, motor speech, voice, fluency, and hearing. Topics include an introduction to the field of communication disorders, articulation and phonology for the speech-language pathology assistant (SLPA), professional issues and practices in speech-language pathology, speech/language/hearing clinical strategies, clinical considerations in service delivery to clients with communication disorders, and fieldwork experience.

Degree Requirements

Course Code	Course Title	Units
DEAF 310	American Sign Language I	4
ECE 312	Child Development (3)	3
or PSYC 372	Child Development (3)	
ECE 325	Positive Guidance Strategies with Young Children	3
ECE 404	Children with Special Needs	3
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	3
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
SLPA 105	Articulation and Phonology for the SLPA	3
SLPA 110	Professional Issues and Practices in Speech-Language Pathology	3

Course Code	Course Title	Units
SLPA 115	Speech, Language, and Hearing Clinical Strategies	3
SLPA 120	Clinical Considerations in Service Delivery to Clients with Communication Disorders	3
SLPA 121	Fieldwork Experience in Speech-Language Pathology	4
SLPA 300	Introduction to Communication Disorders	3
COMM 325	Intercultural Communication	3
COMM 331	Group Discussion	3
Total Units:		**41**

The Speech-Language Pathology Assistant Program Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe various communication disorders, including etiology and some remedial techniques.
- explain the major areas of cultural diversity and the relationship between culture and communication.
- demonstrate skills needed to assist in the management of speech-language pathology programs and services.
- describe the therapeutic process especially in terms of how learning occurs and strategies for effective lesson delivery.
- implement a treatment protocol as prescribed by the supervising Speech-Language Pathologist.
- describe professional responsibilities and ethical behavior appropriate for the Speech-Language Pathology Assistant.

Career Information

Upon completion of the Associate in Science degree, a student possesses the course work and field work experience to work as a Speech-Language Pathology Assistant (SLPA) in both private and public agencies, such as hospitals, rehabilitation centers, and the public schools serving preschool through adult-age clients. Successful completion of the Speech-Language Pathology Assistant program qualifies the graduate for eligibility to apply to the Speech-Language Pathology and Audiology and Hearing Aid Dispensers Board for registration as a Speech-Language Pathology Assistant.

Certificates of Achievement

SLPA Core Curriculum Certificate Certificate

This certificate is designed for students with a bachelor's degree in the field of communication sciences and disorders. With the addition of this certificate, they will be prepared to assist Speech-Language Pathologists in treating disorders of communication. Such disorders may be related to articulation and phonology, child and adult language, motor speech, voice, fluency, and hearing. Topics include articulation and phonology for the speech-language pathology assistant (SLPA), professional issues and practices in speech-language pathology, clinical considerations in service delivery to clients with communication disorders, and fieldwork experience.

Certificate Requirements

Course Code	Course Title	Units
SLPA 105	Articulation and Phonology for the SLPA	3
SLPA 110	Professional Issues and Practices in Speech-Language Pathology	3
SLPA 115	Speech, Language, and Hearing Clinical Strategies	3
SLPA 120	Clinical Considerations in Service Delivery to Clients with Communication Disorders	3
SLPA 121	Fieldwork Experience in Speech-Language Pathology	4
SLPA 300	Introduction to Communication Disorders	3
Total Units:		**19**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe various communication disorders, including etiology and some remedial techniques.
- explain the major areas of cultural diversity and the relationship between culture and communication.
- demonstrate skills needed to assist in the management of speech-language pathology programs and services.
- describe the therapeutic process especially in terms of how learning occurs and strategies for effective lesson delivery.
- implement a treatment protocol as prescribed by the supervising Speech-Language Pathologist.
- describe professional responsibilities and ethical behavior appropriate for the Speech-Language Pathology Assistant.

Career Information

Upon completion of the SLPA Core Curriculum Certificate and awarding of the Bachelor's degree in the field of Communication Sciences and Disorders, the student qualifies for for eligibility to apply to the Speech-Language Pathology and Audiology and Hearing Aid Dispensers Board (SLPAHADB) for registration as a Speech-Language Pathology Assistant (SLPA) in the State of California. The registered SLPA may work in both private and public agencies, such as hospitals, rehabilitation centers, and the public schools serving infants through adult-age clients addressing communication and cognitive needs.

SLPA Specialization: Adult Neurogenic Certificate

This certificate prepares students to assist Speech-Language Pathologists in treating disorders of communication occurring in the adult neurogenic population. Such disorders may be related to articulation and phonology, language, motor speech, voice, fluency, and hearing. Topics include medical language for health care providers, psychology of aging - adult development and aging, neurogenic communication disorders, neurogenic therapy techniques, and fieldwork experience.

Certificate Requirements

Course Code	Course Title	Units
AH 311	Medical Language for Health-Care Providers	3
GERON 305	Introduction to Geropsychology and the Aging Brain (3)	3
or PSYC 375	Introduction to Geropsychology and the Aging Brain (3)	
SLPA 105	Articulation and Phonology for the SLPA	3
SLPA 110	Professional Issues and Practices in Speech-Language Pathology	3
SLPA 115	Speech, Language, and Hearing Clinical Strategies	3
SLPA 116	SLPA Therapy Techniques: Neurogenic Communication Disorders	2
SLPA 120	Clinical Considerations in Service Delivery to Clients with Communication Disorders	3
SLPA 121	Fieldwork Experience in Speech-Language Pathology	4
SLPA 126	Neurogenic Communication Disorders for the SLPA	3
SLPA 300	Introduction to Communication Disorders	3
Total Units:		**30**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe various communication disorders affecting the adult age population, including etiology and remediation techniques.
- demonstrate skills needed to assist in the management of adult neurogenic speech-language pathology programs and services.
- describe the therapeutic process especially in terms of how learning occurs and strategies for effective lesson delivery for the adult population.
- implement a treatment protocol as prescribed by the supervising Speech-Language Pathologist.
- explain service provision differences between inpatient, outpatient, home, and clinic-based therapeutic models for the adult.
- describe professional responsibilities and ethical behavior appropriate for the Speech-Language Pathology Assistant when working with the adult population.

Career Information

Successful completion of the Speech-Language Pathology Assistant (SLPA) program qualifies the student to earn an Associate in Science degree in Speech-Language Pathology. The SLPA graduate possesses the course work and field work experience to apply to the Speech-Language Pathology and Audiology and Hearing Aid Dispensers Board (SLPAHADB) for registration as a Speech-Language Pathology Assistant (SLPA) in the State of California. The registered SLPA may work in both private and public agencies, such as hospitals, rehabilitation centers, and the public schools serving infants through adult-age clients. This Certificate of Achievement will indicate specialized learning opportunities for addressing the communicative and cognitive needs of the adult with neurological impairments, thus improving the marketability of the SLPA upon earning the Associate in Science in Speech-Language Pathology.

SLPA Specialization: Early Intervention Certificate

This certificate prepares students to assist Speech-Language Pathologists in treating disorders of communication for children between the ages of birth-3 years of age. Such disorders may be related to language, oral motor movements, and hearing. Topics include infant and toddler development, children with special needs, Early Intervention therapy techniques, childhood language development, and fieldwork experience.

Certificate Requirements

Course Code	Course Title	Units
ECE 330	Infant and Toddler Development	3
ECE 404	Children with Special Needs	3
SLPA 105	Articulation and Phonology for the SLPA	3
SLPA 110	Professional Issues and Practices in Speech-Language Pathology	3
SLPA 115	Speech, Language, and Hearing Clinical Strategies	3
SLPA 118	SLPA Therapy Techniques: Early Intervention	1.5
SLPA 120	Clinical Considerations in Service Delivery to Clients with Communication Disorders	3
SLPA 121	Fieldwork Experience in Speech-Language Pathology	4
SLPA 127	Childhood Language Development	3
SLPA 300	Introduction to Communication Disorders	3
Total Units:		**29.5**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe various communication disorders affecting children ages birth-3 years, including etiology and remediation techniques.
- demonstrate skills needed to assist in the management of Early Intervention (EI) speech-language pathology programs and services.
- describe the therapeutic process especially in terms of how learning occurs and strategies for effective lesson delivery for the EI population.
- implement a treatment protocol as prescribed by the supervising Speech-Language Pathologist.
- explain service provision differences between home and clinic therapeutic models for the EI population.
- describe professional responsibilities and ethical behavior appropriate for the Speech-Language Pathology Assistant.

Career Information

Successful completion of the Speech-Language Pathology Assistant (SLPA) program qualifies the student to earn an Associate in Science degree in Speech-Language Pathology. The SLPA graduate possesses the course work and field work experience to apply to the Speech-Language Pathology and Audiology and Hearing Aid Dispensers Board (SLPAHADB) for registration as a Speech-Language Pathology Assistant (SLPA) in the State of California. The registered SLPA may work in both private and public agencies, such as hospitals, rehabilitation centers, and the public schools serving infants through adult-age clients. This certificate will indicate specialized learning opportunities for addressing the communicative needs of the Early Intervention (EI) population.

SLPA Specialization: School Age Certificate

This certificate prepares students to assist Speech-Language Pathologists in treating disorders of communication occurring in the school age population. Such disorders may be related to articulation and phonology, language, motor speech, voice, fluency, and hearing. Topics include child development, children with special needs, school age therapy techniques, childhood language development, and fieldwork experience.

Certificate Requirements

Course Code	Course Title	Units
ECE 312	Child Development (3)	3
or PSYC 372	Child Development (3)	
ECE 404	Children with Special Needs	3
SLPA 105	Articulation and Phonology for the SLPA	3
SLPA 110	Professional Issues and Practices in Speech-Language Pathology	3
SLPA 115	Speech, Language, and Hearing Clinical Strategies	3
SLPA 117	SLPA Therapy Techniques: School Age	2
SLPA 120	Clinical Considerations in Service Delivery to Clients with Communication Disorders	3
SLPA 121	Fieldwork Experience in Speech-Language Pathology	4
SLPA 127	Childhood Language Development	3
SLPA 300	Introduction to Communication Disorders	3
Total Units:		**30**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- describe various communication disorders affecting the school age population (3-21 years), including etiology and remediation techniques.
- demonstrate skills needed to assist in the management of school-aged speech-language pathology programs and services.

- describe the therapeutic process especially in terms of how learning occurs and strategies for effective lesson delivery for the school-aged population.
- implement a treatment protocol as prescribed by the supervising Speech-Language Pathologist.
- explain service provision differences between clinic and educational therapeutic models for the school-aged population.
- describe professional responsibilities and ethical behavior appropriate for the Speech-Language Pathology Assistant.

Career Information

Successful completion of the Speech-Language Pathology Assistant (SLPA) program qualifies the student to earn an Associate in Science degree in Speech-Language Pathology. The SLPA graduate possesses the course work and field work experience to apply to the Speech-Language Pathology and Audiology and Hearing Aid Dispensers Board (SLPAHADB) for registration as a Speech-Language Pathology Assistant (SLPA) in the State of California. The registered SLPA may work in both private and public agencies, such as hospitals, rehabilitation centers, and the public schools serving infants through adult-age clients. This certificate will indicate specialized learning opportunities for addressing the communicative needs of the school-aged population.

Speech-Language Pathology (SLPA) Courses

SLPA 105 Articulation and Phonology for the SLPA

Units: 3

Hours: 54 hours LEC

Prerequisite: SLPA 300 with a grade of "C" or better

This Speech-Language Pathology Assistant (SLPA) course introduces principles and practices for management of individuals with articulation and/or phonological disorders, with consideration for cultural and linguistic variations. Screening protocols as well as therapeutic practices and materials are discussed. Additionally, this course covers the study and application of the International Phonetic Alphabet (IPA), transcription from Standard American English to IPA, and transcription from IPA to Standard American English.

SLPA 110 Professional Issues and Practices in Speech-Language Pathology

Units: 3

Hours: 54 hours LEC

Prerequisite: SLPA 300 with a grade of "C" or better

This course introduces principles and practices for management of individuals with communicative disorders, with consideration for cultural and linguistic variations. It includes legal and ethical considerations for the practicing Speech-Language Pathology Assistant (SLPA) as well as the practicing Speech-Language Pathologist (SLP). Requirements for employment in various work settings, including interdisciplinary and supervisory relationships, observational skills, mandated reporting, Code of Ethics, scope of practice, and laws/regulations are covered. Students are required to observe a minimum of six (6) hours of recorded clinical sessions from the Master Clinician Network.

SLPA 115 Speech, Language, and Hearing Clinical Strategies

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: SLPA 105 with a grade of "C" or better

This course explores specific materials and strategies regarding speech, language, and hearing therapeutic service delivery with a focus on screening and intervention. It covers speech, language and hearing screening procedures, forms of Augmentative and Alternative Communication (AAC), development of forms of AAC, and the collection and transcription of language samples. This course is designed as an additional opportunity to gain more experience in preparation for fieldwork as a Speech-Language Pathology Assistant (SLPA).

SLPA 116 SLPA Therapy Techniques: Neurogenic Communication Disorders

Units: 2

Hours: 36 hours LEC

Prerequisite: SLPA 300 with a grade of "C" or better

This course explores specific neurologically-based disorders of communication and their causes and characteristics as acquired by adult clientele. Specific materials and strategies are emphasized for therapeutic service delivery within the realm of speech, language, and cognition. It covers anatomy, neurological etiologies, remediation techniques/material/equipment, rationales for commonly used therapeutic

approaches, individual vs. group therapy, service provision sites, data collection, clinical documentation and record keeping, and the role of the Speech-Language Pathology Assistant (SLPA).

SLPA 117 SLPA Therapy Techniques: School Age

Units: 2

Hours: 36 hours LEC

Prerequisite: SLPA 105 and 300 with grades of "C" or better

This course explores specific disorders of communication and therapeutic service provision with the school-aged population. Specific materials and strategies regarding service delivery are emphasized, with a focus on evidence-based practice. It covers remediation techniques and rationales for commonly used therapeutic approaches, strategies for service delivery in school and clinic environments, materials management, proxemics, data collection, safety, and communication with caregiver, colleagues and supervisor. This course also reviews service delivery models, scope of responsibilities, and the role of the Speech-Language Pathology Assistant (SLPA) in intervention.

SLPA 118 SLPA Therapy Techniques: Early Intervention

Units: 1.5

Hours: 18 hours LEC; 27 hours LAB

Prerequisite: SLPA 300 with a grade of "C" or better

This course explores specific disorders of communication and therapeutic service provision with the Early Intervention (EI) population. Specific materials and strategies regarding service delivery are emphasized, with a focus on evidence-based practice. It also covers remediation techniques and rationales for commonly used therapeutic approaches, strategies for service delivery in home and clinic environments, materials management, proxemics, data collection, safety, and communication with caregiver and supervisor. This course reviews the scope of responsibilities and the role of the Speech-Language Pathology Assistant (SLPA) in intervention.

SLPA 120 Clinical Considerations in Service Delivery to Clients with Communication Disorders

Units: 3

Hours: 54 hours LEC

Prerequisite: SLPA 110 with a grade of "C" or better

This course explores specific disorders of communication, and their causes and characteristics. Specific materials and strategies regarding service delivery are emphasized, with a focus on evidence-based practice. Similarities and differences with regard to therapeutic service provision by the Speech-Language Pathology Assistant (SLPA) and the Speech-Language Pathologist (SLP) are introduced. This course covers remediation techniques and rationales for commonly used therapeutic approaches as well as principles of learning, strategies for service delivery with groups of clients, data collection, clinical documentation, and record keeping. It also reviews the scope of responsibilities and the role of the SLPA in intervention and behavior management strategies. Students are required to observe a minimum of six (6) hours of recorded clinical sessions from the Master Clinician Network.

SLPA 121 Fieldwork Experience in Speech-Language Pathology

Units: 4

Hours: 18 hours LEC; 162 hours LAB

Prerequisite: SLPA 115 and 120 with grades of "C" or better

Enrollment Limitation: Prior to student orientation, the following requirements must be submitted for review: (1) Proof of negative tuberculin (TB) skin test within three months prior to class. (2) If the TB skin test result is positive, proof of inactive TB chest x-ray within one year prior to class. (3) Proof of completion of CPR/First Aid certification. (4) Proof of malpractice insurance. Live Scan fingerprinting is determined through clinical placement protocol. If a student receives a deficient grade (D/F), SLPA 121 may be repeated once.

This course provides supervised fieldwork experience assisting with the clinical management of persons with communicative disorders. It covers the job-related skills needed to be a Speech-Language Pathology Assistant (SLPA). It also provides opportunities to interact with clients/patients while implementing a prescribed treatment plan and assisting with screening or evaluation under the direction of a speech-language pathologist. This course includes opportunities for record keeping and managing client data, setting up/preparing for sessions, and performing various clerical duties. A portion of this course may be offered in a TBA component of 162 hours which will include supervised fieldwork experience assisting with the clinical management of persons with communicative disorders.

SLPA 126 Neurogenic Communication Disorders for the SLPA

Units: 3

Hours: 54 hours LEC

Prerequisite: SLPA 300 with a grade of "C" or better

This course explores neurogenic cognitive-communicative disorders in adults and is designed for the speech-language pathology assistant (SLPA). It covers basic neuroanatomy, cognitive-communicative disorders acquired in adulthood, as well as therapeutic approaches and strategies for service delivery. The scope of responsibilities and the role of the SLPA are reviewed.

SLPA 127 Childhood Language Development

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

This course prepares the student for a complete review of how children develop language within their established language communities. It is designed to prepare people who work with children (early childhood educators, speech-language pathology assistants, etc.) with the knowledge of developmental stages of language acquisition, as well as receptive and expressive language milestones. Topics include the hearing mechanism, comprehension of language, gestures, social pragmatics, semantic development, morphology and syntax, language impairment, as well as cultural variables impacting communication.

SLPA 299 Experimental Offering in Speech-Language Pathology

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

SLPA 300 Introduction to Communication Disorders

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course is an introduction to the field of communication disorders, including an overview and history of the profession of speech-language pathology. It includes an overview of various speech and language disorders, as well as guidelines for determining the development of typical and atypical speech and language. Students are required to observe a minimum of three hours of recorded clinical sessions from the Master Clinician Network.

Student Government

Overview

The student government program is designed to help nurture the leaders of the future. In addition to student government classes, we also offer a Leadership Development Certificate.

Dean: Hannah Blodgett

Phone: (916) 484-8471

Email: arcstudentleadership@arc.losrios.edu

Student Government (SGVT) Courses

SGVT 300 Introduction to Student Government

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU

General Education: Local GE L7B

This course provides a study of the legal, educational, and philosophical basis of student government and leadership studies. It may include travel to other campuses, area and state conferences, and it provides the opportunity to participate on faculty and administrative committees. Topics are designed to teach leadership skills and to give practical experience in the field of student government. This course is highly advised for those involved in student government. Field trips may be required.

SGVT 310 Leadership Development

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course provides emerging and existing student leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. It examines contemporary leadership models as well as personal values and beliefs that affect personal philosophy of leadership. This course provides opportunities to experience leadership in college and community settings. This course is highly advised for those involved in student government.

SGVT 499 Experimental Offering in Student Government

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Theatre Arts

Overview

The Department of Theatre and Film at American River College offers a wide range of classes in all areas of theatre, along with an expanding Film Studies program. We also maintain a busy production schedule in a variety of performance spaces in our recently modernized and expanded facility. In addition to our season of full-scale department productions, we feature touring Children's Theatre productions, student-produced performances featuring scenes, improv and one-act plays, and an on-going partnership with the Broadway at Music Circus program. This schedule provides broad opportunities for theoretical and practical training for our students, and an exciting and varied menu of theatrical fare for our audiences.

Degrees and Certificates Offered

A.A.-T. in Theatre Arts

A.A. in Theatre Arts: Acting

A.A. in Theatre Arts: Technical Production

Acting Certificate

Children's Theatre Certificate

Costuming Certificate

Musical Theatre Certificate

Theatre Production Certificate

Dean: Corinne Arrieta Katzorke

Department Chairs: Kathy Burleson
Sam Williams

Phone: (916) 484-8570

Email: AskHB-Arts@arc.losrios.edu

Associate Degrees for Transfer

A.A.-T. in Theatre Arts

The Associate in Arts in Theatre Arts for Transfer (AA-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to a California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Theatre Arts at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, §66746):
• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

All ADTs also require that students must earn a “C” or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
TA 300	Introduction to the Theatre (3)	3
or TA 302	History and Theory of the Theatre I (3)	
TA 350	Theory and Techniques of Acting I (3)	3
A minimum of 3 units from the following:		3
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 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 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 330	Classical Technical Production I (1 - 3)	
TAP 331	Classical Technical Production II (1 - 3)	
TAP 332	Classical Technical Production III (1 - 3)	

Course Code	Course Title	Units
TAP 333	Classical Technical Production 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 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 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)	
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)	
TAP 380	Repertory/Touring Rehearsal and Performance I (1 - 3)	
TAP 381	Repertory/Touring Rehearsal and Performance II (1 - 3)	
TAP 382	Repertory/Touring Rehearsal and Performance III (1 - 3)	
TAP 383	Repertory/Touring Rehearsal and Performance IV (1 - 3)	
TAP 390	Repertory and Touring Technical Production I (1 - 3)	
TAP 391	Repertory and Touring Technical Production II (1 - 3)	
TAP 392	Repertory and Touring Technical Production III (1 - 3)	
TAP 393	Repertory and Touring Technical Production IV (1 - 3)	
List A:		
A minimum of 9 units from the following:		9
TA 351	Theory and Techniques of Acting II (3)	
TA 420	Stagecraft (3)	
TA 422	Stage Lighting (3)	
TA 430	Costume Construction (3)	
TA 437	Stage Make-up I (3)	
TAP 300-393, a maximum of 3 units of courses not already used toward this degree.		
Total Units:		**18**

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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- critique and evaluate the role of the theatre arts and its relationship to other parts of society.
- evaluate the historical, artistic, social, and philosophical environments in which theatre exists.
- analyze and critique dramatic literature and performance.
- formulate alternative solutions to theatrical production situations.
- employ audition and performance skills in community, educational, and/or professional theatres.
- develop skills to work as a theatre technician in community, educational, and/or professional theatres.
- demonstrate the ability to work effectively as an ensemble member of a theatre company.
- demonstrate skills that will allow the student to thrive in a baccalaureate level theatre program.

Career Information

This degree provides students with the lower division breadth and depth of the field of theatre arts and exposes students to the core principles and practices in the field. It covers the basics of acting, theatre technology and production, and the historical and modern development of theatre and dramatic literature in the world of entertainment.

Associate Degrees

A.A. in Theatre Arts: Acting

This degree provides training in the areas of acting, voice, movement, improvisation, and dramatic styles. The course work and theatrical production activities are arranged to provide opportunities for students to develop an appreciation for theatre, to improve in the knowledge and skills necessary for work in the theatrical arts professions, and to transfer to a four-year theatre program.

Degree Requirements

Course Code	Course Title	Units
TA 300	Introduction to the Theatre	3

Course Code	Course Title	Units
TA 350	Theory and Techniques of Acting I	3
TA 351	Theory and Techniques of Acting II	3
TA 370	Theatre Movement	2
TA 375	Voice, Diction and Dialects	3
TA 420	Stagecraft	3
TA 437	Stage Make-up I	3
A minimum of 2 units from the following:		2
TA 344	Improvisation and Theatre Games (2)	
TA 356	Acting for the Camera I (3)	
TA 357	Acting for the Camera - II (3)	
TA 362	Styles of Acting: Classical (3)	
TA 366	Styles of Acting: Modern (3)	
A minimum of 3 units from the following:		3[1]
TA 356	Acting for the Camera I (3)	
TA 357	Acting for the Camera - II (3)	
TA 362	Styles of Acting: Classical (3)	
TA 366	Styles of Acting: Modern (3)	
TA 377	Musical Theatre Techniques (3)	
TA 390	Directing and Play Production (3)	
TA 406	Children's Theatre (3)	
A minimum of 2 units from the following:		2
MUSM 342	Recording Studio Techniques I (3)	
TA 404	Techniques of Puppetry (3)	
TA 422	Stage Lighting (3)	
TA 424	Advanced Technical Theatre (3)	
TA 430	Costume Construction (3)	
TA 433	Costume Production (0.5 - 3)	
TA 434	Vintage Costuming (0.5 - 2)	
or FASHN 334	Vintage Costuming (0.5 - 2)	
TA 435	History and Theory of Costuming (3)	
or FASHN 330	History of Western World Fashion (3)	
TA 440	Arts Management (3)	
A minimum of 2 units from the following:		2
Any TAP (Theatre Arts Performance) course.		
TA 466	Rehearsal and Performance - Musical Ensemble (0.5 - 3)	
or MUP 370	Rehearsal and Performance - Musical Ensemble (0.5 - 3)	
A minimum of 2 units from the following:		2
DANCE 310	Jazz Dance I (1)	
DANCE 320	Ballet I (1)	
DANCE 340	Ballroom Dance (1)	
DANCE 360	Tap Dance I (1)	
DANCE 377	Musical Theatre Dance I (2)	
ENGLT 380	Introduction to Shakespeare (3)	
ENGLT 382	Introduction to Dramatic Literature (3)	
MUFHL 321	Basic Musicianship (3)	
MUIVI 310	Voice Class I (2)	
MUIVI 390	Jazz and Popular Vocal Styles and Improvisation I (2)	
MUP 350	Concert Choir I (2)	
Any TA or TAP course not used to fulfill other requirements of the major.		
Total Units:		**31**

[1]Not used to fulfill other requirements for the major.

The Theatre Arts: Acting Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- recognize standard practices of ensemble playing in a rehearsal/performance environment
- compare and analyze the theories and techniques of acting from a historical perspective
- analyze texts and scripts as they pertain to performance
- demonstrate skill for technical aspects of acting, including physical, vocal, imaginative, analytical, and emotional elements
- analyze theatre as a dynamic art form influencing society
- compare and contrast theatrical periods and styles in terms of acting, directing, playwriting, and technical elements
- analyze the components of a theatrical production
- apply imagination and character analysis to identify and describe the personality and motivations of a given character
- apply technical processes, including lighting, set, costume, and/or stage make-up design, as they pertain to a given dramatic script

A.A. in Theatre Arts: Technical Production

The Technical Theatre degree provides a broad overview of theatre with an emphasis on exploring the technical elements of theatre. Coursework includes stagecraft, lighting, costuming, makeup, sound, and puppetry, together with opportunities for practical participation in productions. The program is designed to prepare students for work as technicians and crew, or to transfer to four-year colleges in preparation to be designers.

Degree Requirements

Course Code	Course Title	Units
TA 300	Introduction to the Theatre	3
TA 350	Theory and Techniques of Acting I (3)	3
TA 420	Stagecraft	3
A minimum of 3 units from the following:		3
TA 404	Techniques of Puppetry (3)	
TA 422	Stage Lighting (3)	
TA 430	Costume Construction (3)	
TA 437	Stage Make-up I (3)	
A minimum of 9 units from the following:		9[1]
ART 300	Drawing and Composition I (3)	
ART 302	Drawing and Composition II (3)	
ART 320	Design: Fundamentals (3)	
ART 370	Three Dimensional Design (3)	
ARTNM 302	Digital Basics for Art New Media (1.5)	
ARTNM 332	Digital Video (3)	
ARTNM 405	Digital 2D Animation (3)	
ARTNM 420	Introduction to 3D Modeling (3)	
ARTPH 305	Digital Photography (3)	
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD) (3)	
FASHN 320	Textiles (3)	
FASHN 357	Apparel Construction I (3)	
FASHN 358	Apparel Construction II (3)	
FASHN 374	Pattern Making and Design (3)	
FASHN 378	Advanced Pattern Making and Design (3)	
FASHN 379	Draping (3)	
IDES 310	History of Interior Architecture and Furnishings I (3)	
IDES 312	History of Interior Architecture and Furnishings II (3)	
IDES 332	Portfolio and Presentation in Interior Design (3)	
IDES 340	Beginning CADD for Interior Design (3)	
MUSM 306	Live Sound Reinforcement (3)	
MUSM 334	Introduction to Musical Instrument Digital Interface (MIDI) (2)	
MUSM 342	Recording Studio Techniques I (3)	
MUSM 344	Recording Studio Techniques II (3)	
MUSM 356	Pro Tools 101, Introduction to Pro Tools (1.5)	
TA 404	Techniques of Puppetry (3)	
TA 406	Children's Theatre (3)	
TA 422	Stage Lighting (3)	
TA 424	Advanced Technical Theatre (3)	
TA 430	Costume Construction (3)	
TA 434	Vintage Costuming (0.5 - 2)	
or FASHN 334	Vintage Costuming (0.5 - 2)	
TA 435	History and Theory of Costuming (3)	
or FASHN 330	History of Western World Fashion (3)	
TA 437	Stage Make-up I (3)	
TA 440	Arts Management (3)	
WELD 300	Introduction to Welding (3)	
A minimum of 2 units from the following:		2[2]
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)	
TAP 390	Repertory and Touring Technical Production I (1 - 3)	
TAP 391	Repertory and Touring Technical Production II (1 - 3)	
TAP 392	Repertory and Touring Technical Production III (1 - 3)	
TAP 393	Repertory and Touring Technical Production IV (1 - 3)	
A minimum of 6 units from the following:		6
Any TA or TAP courses not used to fulfill other requirements for the major.		
Total Units:		**29**

[1]Not used to fulfill other requirements for the major.

[2]Earned by a minimum of 0.5 units in each of two productions for a total of 2 units.

The Theatre Arts: Technical Production Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess the influence of theatre as a dynamic art form and a social and cultural force in our society.
- compare theatrical periods and styles in terms of acting, directing, playwriting, and technical elements.
- analyze the components of a theatrical production and the role of technical theatre in the production process.
- evaluate a script, assess production requirements, and develop practical and artistic solutions through scenic, lighting, costume, sound, or makeup designs.
- integrate practical information from construction plans.
- demonstrate proficiency in technical production skills.
- evaluate tools, materials, and processes used in technical theatre work.

Certificates of Achievement

Acting Certificate

This certificate provides training in the theories and techniques of acting. The training starts with the basic principles of acting and refines them through theoretic, rehearsal, and performance processes. This program is designed to introduce and develop the craft of acting.

Certificate Requirements

Course Code	Course Title	Units
TA 350	Theory and Techniques of Acting I	3
TA 351	Theory and Techniques of Acting II	3
TA 370	Theatre Movement	2
TA 375	Voice, Diction and Dialects	3
A minimum of 2 units from the following:		2
TA 344	Improvisation and Theatre Games (2)	
TA 356	Acting for the Camera I (3)	
TA 357	Acting for the Camera - II (3)	
TA 362	Styles of Acting: Classical (3)	
TA 366	Styles of Acting: Modern (3)	
TA 377	Musical Theatre Techniques (3)	
A minimum of 1 unit from the following:		1
TA 406	Children's Theatre (3)	
TA 466	Rehearsal and Performance - Musical Ensemble (0.5 - 3)	
or MUP 370	Rehearsal and Performance - Musical Ensemble (0.5 - 3)	
TAP 300	Modern Rehearsal and Performance I (1 - 3)	
TAP 320	Classical Rehearsal and Performance I (1 - 3)	
TAP 340	Musical Rehearsal and Performance I (1 - 3)	
TAP 360	Children's Theatre Rehearsal and Performance I (1 - 3)	
TAP 380	Repertory/Touring Rehearsal and Performance I (1 - 3)	
A minimum of 3 units from the following:		3
Any TA or TAP course not used to fulfill other requirements of the major.		
Total Units:		**17**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- recognize standard practices of ensemble playing in a rehearsal and performance environment
- compare and analyze the theories and techniques of acting from a historical perspective
- analyze texts and scripts as they pertain to performance
- execute skill for technical aspects of acting, including physical, vocal, imaginative, and emotional elements
- apply imagination and character analysis to identify and describe the personality and motivations of a given character

Career Information

A person with an acting certificate may go into acting, directing, film, teaching, and many other careers where oration and presentation are key components.

Children's Theatre Certificate

This certificate provides the knowledge needed to create theatrical productions for children. Coursework includes acting, improvisation, voice, technical theatre, and theatre productions for children.

Certificate Requirements

Course Code	Course Title	Units
TA 350	Theory and Techniques of Acting I	3
A minimum of 4 units from the following:		4
ENGLT 370	Children and Literature (3)	
TA 344	Improvisation and Theatre Games (2)	
TA 370	Theatre Movement (2)	
TA 400	Creative Drama for Children (3)	
TA 404	Techniques of Puppetry (3)	
A minimum of 3 units from the following:		3[1]
TA 404	Techniques of Puppetry (3)	
TA 420	Stagecraft (3)	
TA 430	Costume Construction (3)	
TA 437	Stage Make-up I (3)	
A minimum of 1 unit from the following:		1
TA 406	Children's Theatre (3)	
TAP 360	Children's Theatre Rehearsal and Performance I (1 - 3)	
TAP 370	Children's Theatre Technical Production I (1 - 3)	
TAP 380	Repertory/Touring Rehearsal and Performance I (1 - 3)	
TAP 390	Repertory and Touring Technical Production I (1 - 3)	
A minimum of 4 units from the following:		4
Any TA or TAP courses not used to fulfill other requirements.		
Total Units:		**15**

[1]Not used to fulfill other requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze children's literature for dramatic structure, characterization, and performance elements.
- demonstrate the basic skills of drama, acting, voice, movement, and improvisation.
- develop simple drama activities and games to promote child creativity.
- apply technical processes, including stagecraft, costume construction, and/or stage make-up, as they pertain to children's theatre.
- integrate dramatic techniques of acting, puppetry, storytelling, and movement into children's theatre productions.

Career Information

People with a Children's Theatre certificate may work as actors or directors in children's theatre, or utilize their skills to augment careers in elementary education, recreation, or arts programs.

Costuming Certificate

This certificate provides training in the skills needed to create theatrical costumes. Coursework includes costume construction, history of costume, patterning, and makeup.

Certificate Requirements

Course Code	Course Title	Units
FASHN 374	Pattern Making and Design	3
TA 430	Costume Construction	3
TA 435	History and Theory of Costuming (3)	3
or FASHN 330	History of Western World Fashion (3)	
TA 437	Stage Make-up I	3
A minimum of 3 units from the following:		3
FASHN 320	Textiles (3)	
FASHN 342	Fashion Illustration I (3)	
FASHN 378	Advanced Pattern Making and Design (3)	
TA 404	Techniques of Puppetry (3)	
A minimum of 0.5 units from the following:		0.5
FASHN 334	Vintage Costuming (0.5 - 2)	
TA 434	Vintage Costuming (0.5 - 2)	
A minimum of 1 unit from the following:		1
TA 433	Costume Production (0.5 - 3)	
A minimum of 1 unit from the following:		1
TAP 310	Modern Technical Production I (1 - 3)	
TAP 330	Classical Technical Production I (1 - 3)	
TAP 350	Musical Technical Production I (1 - 3)	
TAP 370	Children's Theatre Technical Production I (1 - 3)	
TAP 390	Repertory and Touring Technical Production I (1 - 3)	
Total Units:		**17.5**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze the role of costumes and the costume shop staff in a theatrical production.
- organize a practical and artistic solution to the costume requirements of a dramatic work.
- evaluate the costumes of a dramatic production.

- analyze the techniques required to design and develop a period costume.
- analyze the components of major historical fashion periods and their relationship to society.
- demonstrate techniques in altering, constructing, patterning, dying, and painting costumes.

Career Information

A person with a costuming certificate may work creating and maintaining costumes for theatre, film, TV, advertising, and other entertainment fields.

Certificates

Musical Theatre Certificate

This certificate synthesizes the performance skills of movement, acting, and singing with the musical theatre script/song. The training starts with the basic principles of musical theatre techniques and refines them through the choreographic, theoretic, and performance processes. The curriculum is designed to introduce and develop the craft of musical theatre.

Certificate Requirements

Course Code	Course Title	Units
TA 350	Theory and Techniques of Acting I	3
TA 370	Theatre Movement	2
TA 377	Musical Theatre Techniques	3
A minimum of 2 units from the following:		2
MUIVI 310	Voice Class I (2)	
MUIVI 390	Jazz and Popular Vocal Styles and Improvisation I (2)	
MUP 350	Concert Choir I (2)	
MUP 360	Chamber Singers (2)	
MUP 400	Vocal Jazz Ensemble (2)	
A minimum of 4 units from the following:		4[1]
DANCE 310	Jazz Dance I (1)	
DANCE 320	Ballet I (1)	
DANCE 340	Ballroom Dance (1)	
DANCE 360	Tap Dance I (1)	
DANCE 377	Musical Theatre Dance I (2)	
MUFHL 321	Basic Musicianship (3)	
MUIVI 310	Voice Class I (2)	
MUIVI 311	Voice Class II (2)	
MUIVI 320	Voice Class III (2)	
MUIVI 340	Beginning Piano (2)	
MUIVI 390	Jazz and Popular Vocal Styles and Improvisation I (2)	
MUIVI 391	Jazz and Popular Vocal Styles and Improvisation II (2)	
MUP 350	Concert Choir I (2)	
MUP 360	Chamber Singers (2)	
MUP 400	Vocal Jazz Ensemble (2)	
TA 351	Theory and Techniques of Acting II (3)	
TA 362	Styles of Acting: Classical (3)	
TA 366	Styles of Acting: Modern (3)	
TA 375	Voice, Diction and Dialects (3)	
A minimum of 1 unit from the following:		1
TA 466	Rehearsal and Performance - Musical Ensemble (0.5 - 3)	
or MUP 370	Rehearsal and Performance - Musical Ensemble (0.5 - 3)	
TAP 340	Musical Rehearsal and Performance I (1 - 3)	
TAP 380	Repertory/Touring Rehearsal and Performance I (1 - 3)	
Total Units:		**15**

[1]Not used to fulfill other requirements of the major.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- synthesize choreographed movement and blocking skills with optimum singing skills
- interpret a character through a musical theatre song/script/dance
- critique acting, singing, and movement skills in a musical theatre performance
- develop and perform an audition package consisting of a ballad and an up-tempo song
- identify historical eras in the development of American Musical Theatre

Career Information

A person with a Musical Theatre certificate may go into acting or directing careers in musical theatre or may augment careers in education, recreation, and arts programs.

Theatre Production Certificate

This certificate provides training in the skills needed to develop and maintain the technical aspects of productions in theatre, film, TV, and entertainment venues. Coursework includes scenery, lighting, props, stage management, sound, costuming, and puppetry.

Certificate Requirements

Course Code	Course Title	Units
TA 420	Stagecraft	3
TA 422	Stage Lighting	3
A minimum of 5 units from the following:		5
ART 300	Drawing and Composition I (3)	
ARTNM 302	Digital Basics for Art New Media (1.5)	
ARTNM 328	Beginning Digital Photo Imagery (3)	
ARTNM 332	Digital Video (3)	
DESGN 301	Introduction to Computer Aided Drafting and Design (CADD) (3)	
IDES 340	Beginning CADD for Interior Design (3)	
MUSM 334	Introduction to Musical Instrument Digital Interface (MIDI) (2)	
MUSM 342	Recording Studio Techniques I (3)	
MUSM 344	Recording Studio Techniques II (3)	
MUSM 356	Pro Tools 101, Introduction to Pro Tools (1.5)	
TA 404	Techniques of Puppetry (3)	
TA 424	Advanced Technical Theatre (3)	
TA 430	Costume Construction (3)	
TA 433	Costume Production (0.5 - 3)	
TA 437	Stage Make-up I (3)	
TA 440	Arts Management (3)	
WELD 300	Introduction to Welding (3)	
A minimum of 2 units from the following:		2
TA 466	Rehearsal and Performance - Musical Ensemble (0.5 - 3)	
or MUP 370	Rehearsal and Performance - Musical Ensemble (0.5 - 3)	
TAP 310	Modern Technical Production I (1 - 3)	
TAP 311	Modern Technical Production II (1 - 3)	
TAP 330	Classical Technical Production I (1 - 3)	
TAP 331	Classical Technical Production II (1 - 3)	
TAP 350	Musical Technical Production I (1 - 3)	
TAP 351	Musical Technical Production II (1 - 3)	
TAP 370	Children's Theatre Technical Production I (1 - 3)	
TAP 371	Children's Theatre Technical Production II (1 - 3)	
TAP 390	Repertory and Touring Technical Production I (1 - 3)	
TAP 391	Repertory and Touring Technical Production II (1 - 3)	
A minimum of 2.5 units from the following:		2.5
Any TA or TAP class not used to fulfill other requirements.		
Total Units:		**15.5**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze the role of technical theatre in the production process.
- analyze historical and artistic theatrical styles.
- analyze production requirements and develop practical and artistic solutions.
- evaluate a script and develop appropriate scenic, lighting, costume, sound, or makeup designs.
- analyze and apply information from scenic, lighting, and/or costuming plans.
- demonstrate proficiency in technical production skills.
- identify and evaluate tools, materials, and processes used in technical theatre areas.

Career Information

A person with a Theatre Production certificate may become a stagehand, set builder, lighting and sound technician, makeup artist, properties artisan, or stage manager in theatre, film, or TV.

Theatre Arts (TA) Courses

TA 294 Topics in Theatre Arts

Units: 0.5 - 4

Hours: 27 - 162 hours LAB

Prerequisite: None.

This course covers topics in theatre which are not included in current course offerings. A portion of this course may be offered in a TBA component of 27-216 hours which may include theatrical studies, preparation or performance.

TA 299 Experimental Offering in Theatre Art

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

TA 300 Introduction to the Theatre

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

C-ID: C-ID THTR 111

This course provides a general introduction to live theatre as an artistic and social force. It surveys the literary, cultural, and historical aspects of theatre arts. This is an audience-oriented, non-performance course open to all students. Field trips may be required.

TA 302 History and Theory of the Theatre I

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A; Cal-GETC Area 3B

C-ID: C-ID THTR 113

This course is a survey of the history of world theatre from its origins through the 17th Century. The history and evolution of drama and theatre practice are studied in relationship to cultural, political, and social conditions of the time. Plays are read that exemplify major developments and significant artists. Field trips to attend live performances may be required.

TA 303 History and Theory of the Theatre II

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A; Cal-GETC Area 3B

This course is a survey of the history of world theatre from the 17th Century to the modern era. It covers the history and evolution of drama and theatre practice in relation to cultural, political, and social conditions of the time. Topics include plays that exemplify major developments and significant artists. Field trips to attend live performances may be required.

TA 306 Diversity in American Drama (1960 to Present)

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course surveys Native-American, African-American, Latinx, Asian-American, and other diverse theatre from 1960 to the present. It includes the social, political, cultural, and economic climate reflected in the text and production of the play. Field trips may be required.

TA 344 Improvisation and Theatre Games

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

This course explores theatre games and improvisational exercises designed to develop trust, cooperation, mental acuity, and physical and vocal range as an actor. Improvisation technique is built from the ground up, providing a strong foundation for advanced work in non-scripted performance as well as modern rehearsal techniques that involve extensive use of improvisation. Field trips may be required.

TA 350 Theory and Techniques of Acting I

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC (UC credit limitation: TA 350 and 480 combined: maximum credit, one course)

General Education: Local GE L3; Cal-GETC Area 3A

C-ID: C-ID THTR 151

This course explores the major theories and techniques of acting, including improvisation, physical expressiveness, voice production, character portrayal, and scene work. Field trips may be required. This course is not open to students who have completed TA 480.

TA 351 Theory and Techniques of Acting II

Units: 3

Hours: 54 hours LEC

Prerequisite: TA 350 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

C-ID: C-ID THTR 152

This course covers the application of advanced acting theories and techniques. It includes analyzing and performing scripts from realistic and stylized drama, audition monologues, and complex acting exercises. Field trips may be required.

TA 356 Acting for the Camera I

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: TA 350 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

This course introduces the theory and technique of acting for film and video, focusing on the differences between stage acting and acting for the camera. It provides opportunities to apply acting theory and technique in a video studio setting. Field trips may be required.

TA 357 Acting for the Camera - II

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: TA 356 with a grade of "C" or better

Transferable: CSU; UC

This course develops advanced skills of acting for film and television. It provides opportunities in a studio setting to practice monologues, commercials, using a teleprompter and scene work. Field trips may be required.

TA 362 Styles of Acting: Classical

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: TA 350 with a grade of "C" or better

Transferable: CSU; UC

This course explores the styles of acting used in Classic Theatre from the Greeks through Restoration. It examines the actor's approach to the text as well as the voice and movement needs of classic styles. Styles include Greek, Commedia dell'Arte, Shakespeare, and Restoration. Field trips may be required.

TA 366 Styles of Acting: Modern

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: TA 350 with a grade of "C" or better

Advisory: TA 300 and 351

Transferable: CSU; UC

This course explores the styles of acting required for modern theatre from 1875 to the present. It examines the actor's approach to modern texts as well as the voice and movement needs of modern styles. Topics include Realism, Epic Theatre, Theatre of the Absurd, and contemporary solo performance. Field trips may be required.

TA 370 Theatre Movement

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

This course is an active participation and performance experience designed to provide opportunities in discovery and to solve movement tasks of the actor. It incorporates exercises to expand the individual's movement for characters and scenes, as well as training in specific movement areas, such as combat, mime, period style, and dance. Field trips may be required.

TA 375 Voice, Diction and Dialects

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

This course focuses on the overall improvement of vocal quality, explores monologue and dialogue performances, and develops confidence in speaking and voice production. It emphasizes self-improvement drills involving breath control, resonance, pitch, inflection, and articulation, and introduces a study of the vocal anatomy, its parts, and their functions. Additionally, this course covers the study and application of the International Phonetic Alphabet (IPA), and includes a special study and application of stage dialects and/or accent reduction.

TA 377 Musical Theatre Techniques

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

This is a performance-oriented course integrating acting and singing skills through the creation of a unified character. It is both an introduction for students with little or no previous musical theatre experience and a continuing performance forum for those with previous training. Primary emphasis is placed on the three core areas of musical theatre performance: acting, singing, and movement. Field trips may be required.

TA 390 Directing and Play Production

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: TA 350 with a grade of "C" or better

Advisory: TA 300, 351, and 420; and eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

This course is an introduction to directing and the elements of play production. It includes the process of preparing and analyzing a script for production, auditioning and casting a play, blocking and rehearsing actors, and dealing with technical and promotion needs of a production. It also requires directing scenes and/or short plays and preparing a prompt book. Field trips may be required.

TA 395 Playwriting

Units: 3

Hours: 54 hours LEC

Prerequisite: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

This course is an introduction to the fundamentals of the craft of dramatic writing. It emphasizes elements of plot construction and character development through writing exercises, study of superior models of drama, and drafting and revision of an original play script. Field trips may be required.

TA 400 Creative Drama for Children

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.

Transferable: CSU

This course explores theatrical forms and activities to help drama leaders guide children in developing their academic, social, and performance skills. It includes strategies for infusing drama, pantomime, improvisation, puppetry, and creative role-playing into school curriculum and recreational programs. It is designed for anyone who interacts with pre-school and elementary-age children. Field trips may be required.

TA 404 Techniques of Puppetry

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: Eligible for ENGRD 116 AND ENGWR 101; OR ESLR 320 AND ESLW 320.

Transferable: 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 406 Children's Theatre

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Audition/Interview

Transferable: CSU; UC

This course explores children's literature in performance through dramatic presentations of fiction, drama, and poetry for an audience of children or young people. It provides the opportunity to analyze and experience the production process from script to stage. It includes the development of a touring children's production. No prior theatrical experience is

required. This course is recommended for theatre, education, early childhood education, and recreation majors. Public performances and regular field trips are required.

TA 420 Stagecraft

Units: 3

Hours: 36 hours LEC; 72 hours LAB

Prerequisite: None.

Advisory: MATH 25 OR MATH 41 with a grade of "C" or better or placement through the placement process; AND TA 300; AND eligible for ENGRD 116 AND ENGWR 102; OR ESLR 320 AND ESLW 320; AND

Transferable: CSU; UC

C-ID: C-ID THTR 171

This course is an introduction to technical theatre and the creation of scenic elements for theatre, film or television. It covers design styles, painting, set construction, set movement techniques, properties construction, backstage and rehearsal organization and management, and career possibilities. The course combines lectures, reading and projects with practical experience gained from working on department productions. A portion of this course may be offered in a TBA component of 18 hours which may include scenery construction, props, and painting.

TA 422 Stage Lighting

Units: 3

Hours: 36 hours LEC; 72 hours LAB

Prerequisite: None.

Advisory: ENGRD 15 and ENGWR 51, OR ESLR 310 and ESLW 310, OR placement through assessment process; AND MATH 25 or MATH 41, TA 300, and TA 420.

Transferable: CSU; UC

C-ID: C-ID THTR 173

This course introduces the basic concepts of lighting for stage, film or television. Topics include the basic elements of lamps and fixtures, electricity, dimmers and control consoles. It also covers the design elements of color, distribution, and space to produce a lighting design. Practical lighting skills are gained from work on department productions. A portion of this course may be offered in a TBA component of 18 hours which may include hanging, circuiting, and focusing lights.

TA 424 Advanced Technical Theatre

Units: 3

Hours: 36 hours LEC; 72 hours LAB

Prerequisite: TA 420 and 422 with grades of "C" or better

Transferable: CSU; UC

This is an advanced study course dealing with technical theatre design and production techniques in the areas of scenery, props, lighting, sound, scenic painting, rigging or stage management through individual projects and participation in major productions. A portion of this course may be offered in a TBA component of 18-72 hours which may include practical work in lighting, scenic construction or design, sound design, rigging, or stage managing techniques.

TA 430 Costume Construction

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

C-ID: C-ID THTR 174

This course explores the basic areas of costume construction and offers experience in constructing costumes for theatrical productions. Topics include fabrics, color, patterns, sewing techniques, costume pieces, and accessories. Period styles, costume analysis, and basic elements of costume design are also covered. Field trips may be required.

TA 433 Costume Production

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: FASHN 374 or TA 430 with a grade of "C" or better

Transferable: CSU

This lab course explores the process of developing costumes for theatrical productions through the set-up, creation, and assembly of costumes for mainstage productions. Projects focus on developing sewing, craft, and patterning skills, clothing alteration methods and working with fabrics, hats and accessories, dyes and textile paints as utilized in each production. Field trips may be required. A portion of this course may be offered in a TBA component of hours which may include pattern making, sewing, alteration, and maintenance of costumes.

TA 434 Vintage Costuming

Same As: FASHN 334

Units: 0.5 - 2

Hours: 4.5 - 18 hours LEC; 13.5 - 54 hours LAB

Prerequisite: None.

Advisory: FASHN 357 or TA 430; and eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

This course covers the principles and techniques involved in developing and constructing period costumes and/or accessories through individual fabrication of costume pieces. The historical period or topic changes each semester. This course is open to all skill levels, with basic knowledge of sewing recommended. It is not open to students who have completed FASHN 334. Field trips may be required.

TA 435 History and Theory of Costuming

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This is a survey course of historical periods as portrayed through fashion and costumes from ancient through modern times. The impact of social, political, cultural, and economic issues on costuming is explored and analyzed, as is the effect of costumes on society. This course integrates design elements with historical styles to develop designs for theatrical costumes. Field trips may be required.

TA 437 Stage Make-up I

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU; UC

C-ID: C-ID THTR 175

This course covers the basic techniques of theatrical makeup. It explores makeup materials, color and light, modeling techniques, and design elements in the development of makeup designs for adaptive looks, stages of life and aging, historical periods, clowns, animals, and fantasy characters makeup.

TA 440 Arts Management

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This general survey course in arts management emphasizes organization, marketing, audience development, and financial management. It includes promotion and publicity, house management, box office operations, and public relations. It also includes field work projects with an existing arts organization.

TA 452 One-Act Play Workshop

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Enrollment Limitation: Audition/Interview

Transferable: CSU; UC

This course explores the play production process. It provides experience as an active participant in the analysis, preparation, and production of one-act plays through participation as either directors, writers, actors, or technicians. This course culminates in public performances.

TA 466 Rehearsal and Performance - Musical Ensemble

Same As: MUP 370

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Course Family: Musical Performance

Prerequisite: None.

Enrollment Limitation: Audition/Interview

Transferable: CSU; UC

This course provides a workshop training experience in the preparation and performance of musical theatre ensemble productions. A different production is presented each semester the course is offered. Students interested in singing/acting roles audition with the director. Students interested in instrumental positions audition with the musical director. Students interested in technical work interview with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 27-162 hours which may include acting, singing, dancing, musical, or technical rehearsals and preparation. It is not open to students who have completed MUP 370.

TA 494 Topics in Theatre Arts

Units: 0.5 - 4

Hours: 27 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

This course covers topics in theatre which are not included in current course offerings. May require field trips. A portion of this course may be offered in a TBA component of 27-216 hours which may include theatrical studies, preparation or performance.

TA 495 Independent Studies in Theatre Arts

Units: 1 - 3

Hours: 54 - 162 hours LAB

Prerequisite: None.

Transferable: CSU

Independent Study is an opportunity for the student to extend classroom experience in this subject, while working independently of a formal classroom situation. Independent study is an extension of work offered in a specific class in the college catalog. To be eligible for independent study, students must have completed the basic regular catalog course at American River College. They must also discuss the study with a professor in this subject and secure approval. Only one independent study for each catalog course will be allowed.

TA 498 Work Experience in Theatre Arts

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Theatre Arts Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the field of theatre arts. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

TA 499 Experimental Offering in Theatre Arts

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Theatre Arts Film

Overview

ARC's Theatre Arts Film offerings include a variety of transferable, general education classes as well as degree and certificate programs.

Degrees and Certificates Offered

A.A. in Film

Film Certificate

Dean: Corinne Arrieta Katzorke

Department Chairs: Kathy Burleson
Sam Williams

Phone: (916) 484-8570

Email: AskHB-Arts@arc.losrios.edu

Associate Degree

A.A. in Film

This degree provides a broad overview of film history, theory, and practice. It combines the critical study of film as an art form and societal influence, including studies in diversity and genres, with opportunities for practical experience in film acting, writing, production, and post-production. It provides students with a foundation for further study in cinematic arts, as well as preparation for career opportunities which employ those arts.

Degree Requirements

Course Code	Course Title	Units
TAFILM 300	Introduction to Film	3
TAFILM 307	Diversity in American Film	3
TAFILM 320	Cinema Genres	3
A minimum of 6 units from the following:		6
TAFILM 302	History of Film (3)	
TAFILM 303	History of Film: 1880's through 1950's (3)	
TAFILM 304	History of Film: 1950's to Present (3)	
A minimum of 12 units from the following:		12
ARTNM 332	Digital Video (3)	
ARTNM 373	Storyboarding (3)	
ARTNM 405	Digital 2D Animation (3)	
ARTNM 420	Introduction to 3D Modeling (3)	
ARTNM 431	Short Production (3)	
ENGCW 441	Feature Film Screenwriting Workshop I (3)	
ENGLT 403	Film Adaptations (3)	
MUSM 342	Recording Studio Techniques I (3)	
MUSM 344	Recording Studio Techniques II (3)	
MUSM 356	Pro Tools 101, Introduction to Pro Tools (1.5)	
MUSM 357	Pro Tools 110 Intermediate Pro Tools (1.5)	
TA 350	Theory and Techniques of Acting I (3)	
TA 356	Acting for the Camera I (3)	
TA 395	Playwriting (3)	
TA 420	Stagecraft (3)	
TA 422	Stage Lighting (3)	
TA 430	Costume Construction (3)	
TA 437	Stage Make-up I (3)	

Course Code	Course Title	Units
Total Units:		**27**

The Film Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- analyze the historical development of film art.
- assess the influence of film as a dynamic art form, and as a social and cultural force in our society.
- evaluate the components of a film production, including acting, directing, writing, and technical elements.
- compare and contrast different styles and genres of film.
- integrate theoretical knowledge with practical production experience.

Certificate of Achievement

Film Certificate

This certificate concentrates on the critical study of film as an art form and societal influence, with additional opportunities for practical experience in film acting, production, and post-production.

Certificate Requirements

Course Code	Course Title	Units
TAFILM 300	Introduction to Film	3
TAFILM 307	Diversity in American Film	3
A minimum of 6 units from the following:		6
TAFILM 302	History of Film (3)	
TAFILM 303	History of Film: 1880's through 1950's (3)	
TAFILM 304	History of Film: 1950's to Present (3)	
A minimum of 5 units from the following:		5
ARTNM 332	Digital Video (3)	
ARTNM 405	Digital 2D Animation (3)	

Course Code	Course Title	Units
ENGCW 441	Feature Film Screenwriting Workshop I (3)	
ENGLT 403	Film Adaptations (3)	
MUSM 334	Introduction to Musical Instrument Digital Interface (MIDI) (2)	
MUSM 342	Recording Studio Techniques I (3)	
TAFILM 320	Cinema Genres (3)	
TA 356	Acting for the Camera I (3)	
TA 420	Stagecraft (3)	
TA 422	Stage Lighting (3)	
TA 430	Costume Construction (3)	
TA 437	Stage Make-up I (3)	
Total Units:		**17**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- assess the influence of film as a dynamic art form and a social and cultural force in our society.
- distinguish the component parts of a film including acting, directing, screenwriting, cinematography, and production and technical elements.
- analyze the historical development of film.
- evaluate films in terms of cultural diversity.
- integrate theoretical knowledge with practical production experience.

Career Information

People may go into the field of film or television as actors, directors, producers, critics, and technicians.

Theatre Arts Film (TAFILM) Courses

TAFILM 300 Introduction to Film

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course explores the artistic, business, and social elements of film. It examines components of film making, such as acting, directing, cinematography, writing, and editing. Films are analyzed to evaluate film making techniques and the impact of cinematic art and entertainment on society. This course is formerly known as TA 310.

TAFILM 302 History of Film

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course is an historical and critical survey of film as an art form. It emphasizes the evaluation of films which are landmarks in the art of moviemaking from around the world, from the invention of film to the present day. This course is formerly known as TA 312.

TAFILM 303 History of Film: 1880's through 1950's

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course is an historical and critical survey of film as an art form. It emphasizes the evolution of artistic and technical facets of production in features, documentaries, and experimental films, concentrating on films from the 1880s through the 1950s. This course is formerly known as TA 314.

TAFILM 304 History of Film: 1950's to Present

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 101; OR ESLW 340.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course is an historical and critical survey of film as an art form. It emphasizes the evolution of artistic and technical facets of production in features, documentaries, and experimental films, concentrating on films from 1950 to the present. This course is formerly known as TA 315.

TAFILM 307 Diversity in American Film

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course surveys the cinematic expression of artists often underrepresented in the mainstream media, such as women, Native-Americans, African-Americans, Hispanics/Latinos, Asian-Americans, and gays, lesbians, bisexuals, and transgender people. It covers media stereotypes and the social, political, and cultural climates that created them. This course is formerly known as TA 318.

TAFILM 320 Cinema Genres

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3A

This course examines one or more film genres such as western, horror, film noir, and science fiction. It explores specific types of film in depth, concentrating on historical and technical developments in a specific genre, and examines the work of actors, directors, writers, cinematographers, producers, and studios for that genre. This course is formerly known as TA 320.

Theatre Arts Performance

Overview

ARC's Theatre Arts Performance classes give you real-world experience acting on stage or working behind the scenes. You will have the opportunity to be a part of ARC's award-winning productions.

Dean: Corinne Arrieta Katzorke

Department Chairs: Kathy Burleson
Sam Williams

Phone: (916) 484-8570

Email: AskHB-Arts@arc.losrios.edu

Theatre Arts Performance (TAP) Courses

TAP 300 Modern Rehearsal and Performance I

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Modern Theatre Performance

Prerequisite: None.

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 350

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the first in a series of four courses that provide workshop training in the rehearsal and performance of Modern theatre. It is designed for students with little or no prior theatre experience. Students audition or interview with the director for participation in a Modern drama or comedy. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 301 Modern Rehearsal and Performance II

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Modern Theatre Performance

Prerequisite: TAP 300 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 366

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the second in a series of four courses that provide workshop training in the rehearsal and performance of Modern theatre. It is designed for students with basic/minimal theatre experience. Students audition or interview with the director for participation in a Modern drama or comedy. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 302 Modern Rehearsal and Performance III

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Modern Theatre Performance

Prerequisite: TAP 301 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 366

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the third in a series of four courses that provide workshop training in the rehearsal and performance of Modern theatre. It is designed for students with beginning/moderate theatre experience. Students audition or interview with the director for participation in a Modern drama or comedy. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 303 Modern Rehearsal and Performance IV

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Modern Theatre Performance

Prerequisite: TAP 302 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 366

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the fourth in a series of four courses that provide workshop training in the rehearsal and performance of Modern theatre. It is designed for students with intermediate/significant theatre experience. Students audition or interview with the director for participation in a Modern drama or comedy. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 310 Modern Technical Production I

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Modern Theatre Technical Production

Prerequisite: None.

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the first in a series of four courses that provide workshop training in the technical production of modern theatre. It provides practical experience, in the modern theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students who want an introductory experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 311 Modern Technical Production II

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Modern Theatre Technical Production

Prerequisite: TAP 310 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the second in a series of four courses that provide workshop training in the technical production of modern theatre. It provides practical experience, in the modern theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students with basic/minimal experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 312 Modern Technical Production III

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Modern Theatre Technical Production

Prerequisite: TAP 311 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the third in a series of four courses that provide workshop training in the technical production of modern theatre. It provides practical experience, in the modern theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students with beginning/ moderate experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 313 Modern Technical Production IV

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Modern Theatre Technical Production

Prerequisite: TAP 312 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the fourth in a series of four courses that provide workshop training in the technical production of modern theatre. It provides practical experience, in the modern theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students with intermediate/ significant theatre experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 320 Classical Rehearsal and Performance I

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Classical Theatre and Performance

Prerequisite: None.

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 350

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the first in a series of four courses that provide workshop training in the rehearsal and performance of Classical theatre. It is designed for students with little or no prior theatre experience. Students audition or interview with the director for participation in a Classical drama or comedy. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 321 Classical Rehearsal and Performance II

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Classical Theatre and Performance

Prerequisite: TAP 320 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 362

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the second in a series of four courses that provide workshop training in the rehearsal and performance of Classical theatre. It is designed for students with basic/minimal theatre experience. Students audition or interview with the director for participation in a Classical drama or comedy. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 322 Classical Rehearsal and Performance III

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Classical Theatre and Performance

Prerequisite: TAP 321 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 362

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the third in a series of four courses that provide workshop training in the rehearsal and performance of Classical theatre. It is designed for students with beginning/moderate theatre experience. Students audition or interview with the director for participation in a Classical drama or comedy. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 323 Classical Rehearsal and Performance IV

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Classical Theatre and Performance

Prerequisite: TAP 322 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 362

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the fourth in a series of four courses that provide workshop training in the rehearsal and performance of Classical theatre. It is designed for students with intermediate/significant theatre experience. Students audition or interview with the director for participation in a Classical drama or comedy. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 330 Classical Technical Production I

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Classical Theatre Technical Production

Prerequisite: None.

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the first in a series of four courses that provide workshop training in the technical production of classical theatre. It provides practical experience, in the classical theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students who want an introductory experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 331 Classical Technical Production II

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Classical Theatre Technical Production

Prerequisite: TAP 330 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the second in a series of four courses that provide workshop training in the technical production of classical theatre. It provides practical experience, in the classical theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students with basic/minimal theatre experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 332 Classical Technical Production III

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Classical Theatre Technical Production

Prerequisite: TAP 331 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the third in a series of four courses that provide workshop training in the technical production of classical theatre. It provides practical experience, in the classical theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students with beginning/moderate theatre experience. Students interested in technical

work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 333 Classical Technical Production IV

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Classical Theatre Technical Production

Prerequisite: TAP 332 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the fourth in a series of four courses that provide workshop training in the technical production of classical theatre. It provides practical experience, in the classical theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students with intermediate/significant theatre experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 340 Musical Rehearsal and Performance I

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Musical Performance

Prerequisite: None.

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 350

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the first in a series of four courses that provide workshop training in the rehearsal and performance of musical theatre. It is designed for students with little or no prior theatre experience. Students audition or interview with the director for participation in a musical. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 341 Musical Rehearsal and Performance II

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Musical Performance

Prerequisite: TAP 340 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 377

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the second in a series of four courses that provide workshop training in the rehearsal and performance of musical theatre. It is designed for students with basic/minimal theatre experience. Students audition or interview with the director for participation in a musical. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 342 Musical Rehearsal and Performance III

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Musical Performance

Prerequisite: TAP 341 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 370 and 377

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the third in a series of four courses that provide workshop training in the rehearsal and performance of musical theatre. It is designed for students with beginning/moderate theatre experience. Students audition or interview with the director for participation in a musical. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 343 Musical Rehearsal and Performance IV

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Musical Performance

Prerequisite: TAP 342 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 370 and 377

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the fourth in a series of four courses that provide workshop training in the rehearsal and performance of musical theatre. It is designed for students with intermediate/significant theatre experience. Students audition or interview with the director for participation in a musical. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 350 Musical Technical Production I

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Musical Technical Production

Prerequisite: None.

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the first in a series of four courses that provide workshop training in the technical production of musical theatre. It provides practical experience, in the musical theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students who want an introductory experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 351 Musical Technical Production II

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Musical Technical Production

Prerequisite: TAP 350 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the second in a series of four courses that provide workshop training in the technical production of musical theatre. It provides practical experience, in the musical theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students with basic/minimal theatre experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 352 Musical Technical Production III

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Musical Technical Production

Prerequisite: TAP 351 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the third in a series of four courses that provide workshop training in the technical production of musical theatre. It provides practical experience, in the musical theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students with beginning/moderate theatre experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 353 Musical Technical Production IV

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Musical Technical Production

Prerequisite: TAP 352 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the fourth in a series of four courses that provide workshop training in the technical production of musical theatre. It provides practical experience, in the musical theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage

management, house management, box office, publicity, and running crews. It is designed for students with intermediate/ significant experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 360 Children's Theatre Rehearsal and Performance I

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Children's Theatre Performance

Prerequisite: None.

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 350

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the first in a series of four courses that provide workshop training in the rehearsal and performance of children's theatre. It is designed for students with little or no prior theatre experience. Students audition or interview with the director for participation in a children's show. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 361 Children's Theatre Rehearsal and Performance II

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Children's Theatre Performance

Prerequisite: TAP 360 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 350

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the second in a series of four courses that provide workshop training in the rehearsal and performance of children's theatre. It is designed for students with basic/ minimal theatre experience. Students audition or interview with the director for participation in a children's show. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 362 Children's Theatre Rehearsal and Performance III

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Children's Theatre Performance

Prerequisite: TAP 361 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 350

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the third in a series of four courses that provide workshop training in the rehearsal and performance of children's theatre. It is designed for students with beginning/ moderate theatre experience. Students audition or interview with the director for participation in a children's show. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 363 Children's Theatre Rehearsal and Performance IV

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Children's Theatre Performance

Prerequisite: TAP 362 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 350

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the fourth in a series of four courses that provide workshop training in the rehearsal and performance of children's theatre. It is designed for students with intermediate/significant theatre experience. Students audition or interview with the director for participation in a children's show. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 370 Children's Theatre Technical Production I

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Children's Theatre Technical Production

Prerequisite: None.

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the first in a series of four courses that provide workshop training in the technical production of children's theatre. It provides practical experience, in the children's theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students who want an introductory experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 371 Children's Theatre Technical Production II

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Children's Theatre Technical Production

Prerequisite: TAP 370 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the second in a series of four courses that provide workshop training in the technical production of children's theatre. It provides practical experience, in the children's theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students with basic/minimal theatre experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 372 Children's Theatre Technical Production III

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Children's Theatre Technical Production

Prerequisite: TAP 371 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the third in a series of four courses that provide workshop training in the technical production of children's theatre. It provides practical experience, in the children's theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students with beginning/moderate theatre experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 373 Children's Theatre Technical Production IV

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Children's Theatre Technical Production

Prerequisite: TAP 372 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the fourth in a series of four courses that provide workshop training in the technical production of children's theatre. It provides practical experience, in the children's theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students with intermediate/significant theatre experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 380 Repertory/Touring Rehearsal and Performance I

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Repertory/Touring Performance

Prerequisite: None.

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 350

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the first in a series of four courses that provide workshop training in the rehearsal and performance of repertory and/or touring theatre. It is designed for students with little or no prior theatre experience. Students audition or interview with the director for participation in a repertory and/or touring theatre production. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 381 Repertory/Touring Rehearsal and Performance II

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Repertory/Touring Performance

Prerequisite: TAP 380 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 350

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the second in a series of four courses that provide workshop training in the rehearsal and performance of repertory and/or touring theatre. It is designed for students with basic/minimal theatre experience. Students audition or interview with the director for participation in a repertory and/or touring theatre production. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 382 Repertory/Touring Rehearsal and Performance III

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Repertory/Touring Performance

Prerequisite: TAP 381 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 350

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the third in a series of four courses that provide workshop training in the rehearsal and performance of repertory and/or touring theatre. It is designed for students with beginning/moderate theatre experience. Students audition or interview with the director for participation in a repertory and/or touring theatre production. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 383 Repertory/Touring Rehearsal and Performance IV

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Repertory/Touring Performance

Prerequisite: TAP 382 with a grade of "C" or better

Enrollment Limitation: Students must audition and/or interview with the director to participate in this course.

Advisory: TA 350

Transferable: CSU; UC

C-ID: C-ID THTR 191

This course is the fourth in a series of four courses that provide workshop training in the rehearsal and performance of repertory and/or touring theatre. It is designed for students with intermediate/significant theatre experience. Students audition or interview with the director for participation in a repertory and/or touring theatre production. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include acting, singing, dancing, and/or technical rehearsals and preparation.

TAP 390 Repertory and Touring Technical Production I

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Repertory/Touring Technical Production

Prerequisite: None.

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the first in a series of four courses that provide workshop training in the technical production of repertory and touring theatre. It provides practical experience, in the repertory and touring theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting,

sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students who want an introductory experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 391 Repertory and Touring Technical Production II

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Repertory/Touring Technical Production

Prerequisite: TAP 390 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the second in a series of four courses that provide workshop training in the technical production of repertory and touring theatre. It provides practical experience, in the repertory and touring theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students with basic/minimal theatre experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 392 Repertory and Touring Technical Production III

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Repertory/Touring Technical Production

Prerequisite: TAP 391 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the third in a series of four courses that repertory and touring theatre. It provides practical experience, in the repertory and touring theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students with beginning/moderate theatre experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 393 Repertory and Touring Technical Production IV

Units: 1 - 3

Hours: 54 - 162 hours LAB

Course Family: Repertory/Touring Technical Production

Prerequisite: TAP 392 with a grade of "C" or better

Enrollment Limitation: Interview

Transferable: CSU; UC

C-ID: C-ID THTR 192

This course is the fourth in a series of four courses that repertory and touring theatre. It provides practical experience, in the repertory and touring theatre style, in one of the following areas: scenery, scenic painting, properties, costumes, lighting, sound, video, projections, stage management, house management, box office, publicity, and running crews. It is designed for students with intermediate/significant theatre experience. Students interested in technical work interview for positions with the technical director. Field trips may be required. A portion of this course may be offered in a TBA component of 54-162 hours which may include technical preparation, activities, rehearsals, and performances.

TAP 499 Experimental Offering in Theatre Arts Performance

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

Welding Technology

Overview

The ARC Welding Technology department offers students the opportunity to pursue an Associates in Science degree or several certificates. The department is committed to preparing students for success in an exciting, in-demand career field. Our faculty have decades of industry experience. They work closely with local employers and our partners with the American Welding Society (https://www.aws.org/) to ensure that you will gain the skills and training to have a successful career.

Degrees and Certificates Offered

A.S. in Welding Technology

Shielded Metal Arc Plate and Pipe Certificate

Welding Metallurgy and Inspection (270 hours) Certificate

Welding Technology Certificate

Gas Metal Arc and Flux Core Arc Welding Plate (252 hours) Certificate

Gas Tungsten Arc Plate and Pipe Welding (180 hours) Certificate

Pipe Welding Certificate

Welding Equipment Maintenance and Blueprint Interpretation (234 hours) Certificate

Dean: Jon Wedding

Department Chair: Chris Messier

Phone: (916) 484-8588

Email: MCT@arc.losrios.edu

Associate Degree

A.S. in Welding Technology

The Welding Technology degree provides skills and knowledge in manual and semi-automatic welding processes used in the metal fabrication and construction industries. Instruction covers materials, equipment, procedures, testing techniques as well as safety and blueprint reading. Competencies include techniques of joining ferrous and non-ferrous metals by the use of Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW), and welding procedures.

Degree Requirements

Course Code	Course Title	Units
WELD 140	Mathematics for Welding Technicians	3
WELD 300	Introduction to Welding (3)	3
or WELD 301	Introduction to Welding Theory (3)	
WELD 302	Introduction to Welding Metallurgy	3
WELD 316	Welding Inspection	2
WELD 320	Shielded Metal Arc Welding Structural	3
WELD 322	Shielded Metal Arc Welding (Pipe)	3
WELD 330	Gas Tungsten Arc Welding (Plate)	3
WELD 332	Gas Tungsten Arc Welding (Pipe)	3
WELD 333	Gas Metal Arc Welding, Steel	3
WELD 334	Gas Metal Arc Welding: Ferrous and Non-Ferrous Metals	2
WELD 335	Flux Core Arc Welding	3
WELD 342	Symbol Reading, Layout and Fabrication	3
WELD 155	Industry Training (3)	0.5 - 4[1]
or WELD 115	Code Welding (2)	
or WELD 298	Work Experience in Welding (0.5 -4)	
Total Units:		**34.5 - 38**

[1] A minimum of 1 unit from the following courses.

The Welding Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- select the correct electrode classification and parameters for various material thicknesses and welding positions on ferrous and nonferrous metals.
- define principles of GMAW.
- interpret GMAW electrode classification and specification.
- describe GMAW welding operations of various joint designs using selected electrodes on different positions.
- describe SMAW operations of various positions using selected electrodes on different joint designs.
- define principles of arc welding.
- select correct electrode amperage settings for the job application.
- identify GTAW principles and safe welding practices.
- define GTAW applications and limitations.

- explain the reason for the formation of each discontinuity type and identify different discontinuities.
- interpret fabrication blueprints using a systematic process.
- interpret graphic welding symbols.
- relate the requirements for welding ferrous and nonferrous metals.
- select the appropriate setting and application methods.
- list the methods used for discontinuity prevention and identify surface defects in welds.

Career Information

Welding certification is recognized by the welding industry as an important step in the profession. The American Welding Society (AWS) nationally accredits American River College's welding program. The ARC welding program has met all the requirements of the AWS QC4 standards for Accreditation of Test Facilities for their Certified Welder Program. Graduating students may find positions in oil refineries, nuclear power plants, aerospace, structural buildings, bridge construction, auto industry, and small commercial fabricating shops.

Certificates of Achievement

Shielded Metal Arc Plate and Pipe Certificate

This certificate promotes competence in plate and pipe welding. Emphasis is on power sources, electrode selection on various joint designs, techniques, and positions in welding. Instruction includes safety and proper procedures in making fillet and groove welds that are in compliance with structural and pipe welding codes.

Certificate Requirements

Course Code	Course Title	Units
WELD 300	Introduction to Welding (3)	3
or WELD 301	Introduction to Welding Theory (3)	
WELD 320	Shielded Metal Arc Welding Structural	3
WELD 322	Shielded Metal Arc Welding (Pipe)	3
Total Units:		**9**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- interpret electrode classification and specification.
- select correct amperage setting for the job application.
- define principles of arc welding.
- certify and perform SMA operations in various positions using selected electrodes on different joint designs.

Welding Metallurgy and Inspection (270 hours) Certificate

The Welding Metallurgy and Inspection certificate provides the science of metallurgy and weld inspection. Emphasis is on the identification and selection of irons and steel, mechanical and physical properties of metals and crystal structures of metals, rules and regulations of the welding construction industry, and principles, requirements and methods of inspection.

Certificate Requirements

Course Code	Course Title	Units
WELD 117	Ultrasonic Testing Level One	3
WELD 118	Ultrasonic Testing Level Two	3
WELD 300	Introduction to Welding (3)	3
or WELD 301	Introduction to Welding Theory (3)	
WELD 302	Introduction to Welding Metallurgy	3
WELD 316	Welding Inspection	2
Total Units:		**14**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- Describe the mechanical properties of different types of metals.
- Interpret and explain the Nondestructive Testing (NDT) procedures of codes and specifications relating to welding.
- Evaluate and explain in simple terms the reason for the formation of discontinuity in each of the welding processes.
- Explain different methods used for the prevention of weld discontinuities.
- Describe the crystalline structures of metals and explain how grain forms in metal.
- Explain the problems hydrogen causes when welding steel.
- Analyze phase diagrams of carbon and stainless steels.

Welding Technology Certificate

This certificate provides skills and knowledge in manual and semi-automatic welding processes used in the metal fabrication and construction industries. Instruction covers materials, equipment, welding procedures, testing techniques, inspection, welding metallurgy, blueprint reading, and welding safety. Competencies include techniques of joining ferrous and non-ferrous metals by the use of Shielded Metal Arc Welding

(SMAW), Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW). Oxyacetylene welding, oxyacetylene cutting and plasma arc cutting, are also covered.

Certificate Requirements

Course Code	Course Title	Units
WELD 140	Mathematics for Welding Technicians	3
WELD 300	Introduction to Welding (3)	3
or WELD 301	Introduction to Welding Theory (3)	
WELD 302	Introduction to Welding Metallurgy	3
WELD 316	Welding Inspection	2
WELD 320	Shielded Metal Arc Welding Structural	3
WELD 322	Shielded Metal Arc Welding (Pipe)	3
WELD 330	Gas Tungsten Arc Welding (Plate)	3
WELD 332	Gas Tungsten Arc Welding (Pipe)	3
WELD 333	Gas Metal Arc Welding, Steel	3
WELD 334	Gas Metal Arc Welding: Ferrous and Non-Ferrous Metals	2
WELD 335	Flux Core Arc Welding	3
WELD 342	Symbol Reading, Layout and Fabrication	3
WELD 155	Industry Training (3)	0.5 - 4[1]
or WELD 115	Code Welding (2)	
or WELD 298	Work Experience in Welding (0.5 -4)	
Total Units:		**34.5 - 38**

[1]A minimum of 1 unit from the following courses.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- list the factors that must be considered before a welding process is selected.
- evaluate a weld according to a given standard or code.
- compare the three types of welding current used for Gas Tungsten Arc Welding.
- define voltage, electrical potential, amperage, and electrical current as related to Gas Metal Arc Welding.
- discuss how the Gas Metal Arc Welding molten weld pool can be controlled by varying the shielding gas, power settings, weave pattern, travel speed, electrode extension, and gun angle.
- explain what each of the digits in a standard Flux Cored Arc Welding electrode identification number mean.
- list and define the three units used to measure a welding current.
- give the characteristics of the three filler metal groups E6010 and E6011, E6012 and E6013, and E7016 and E7018.
- discuss three general categories of pipe welds including how they are used and what type of weld root penetration and strength they require.
- make a single V-groove butt welded joint on a pipe in any position to code specifications.
- list the crystalline structures of metals and explain how grains form.
- describe practical applications of metallurgy.
- solve basic welding fabrication math problems.
- read a set of welding blueprint drawings and explain each item shown and its dimensioning.

Career Information

Graduates may find employment in a number of industries, including pipeline construction, oil refining, aerospace, structural building, bridge construction, automotive, and small commercial fabricating. They may also work as welding shop supervisors, welding sales persons, welding shop owners, or welding inspectors.

Certificates

Gas Metal Arc and Flux Core Arc Welding Plate (252 hours) Certificate

The Gas Metal Arc Welding certificate promotes competence in welding with different types of metal transfer, constant voltage power sources, different types of shielding gases, and electrode selection on various joint designs. Instruction is provided in gas metal and flux cored arc welding on fillet and groove welds to specific structural and pipe standards.

Certificate Requirements

Course Code	Course Title	Units
WELD 300	Introduction to Welding (3)	3
or WELD 301	Introduction to Welding Theory (3)	
WELD 333	Gas Metal Arc Welding, Steel	3
WELD 334	Gas Metal Arc Welding: Ferrous and Non-Ferrous Metals	2
WELD 335	Flux Core Arc Welding	3
Total Units:		**11**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- select the correct electrode classification and parameters for various thicknesses of material and welding positions on ferrous and nonferrous metals.
- define principles of gas metal arc welding.
- interpret electrode classification and specification.
- analyze gas metal arc welding operations on various joint designs using selected electrodes for different welding positions.

Gas Tungsten Arc Plate and Pipe Welding (180 hours) Certificate

The Gas Tungsten Arc Welding certificate promotes competence in welding ferrous and nonferrous materials. Emphasis is on proper use of gas tungsten arc welding (GTA) equipment setup requirements, process variables, material requirements, and welding procedures that are in compliance with industry standards.

Certificate Requirements

Course Code	Course Title	Units
WELD 300	Introduction to Welding (3)	3
or WELD 301	Introduction to Welding Theory (3)	
WELD 330	Gas Tungsten Arc Welding (Plate)	3
WELD 332	Gas Tungsten Arc Welding (Pipe)	3
Total Units:		**9**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- identify GTAW principles and safe practices.
- define GTAW applications and limitations.
- weld mild steel, stainless steel, and aluminum alloys using GTAW procedures in all positions.
- evaluate and demonstrate procedures for a given welding project or application.
- relate the requirements of welding ferrous and nonferrous materials.
- select the appropriate settings and application methods of GTAW process.

Pipe Welding Certificate

This certificate promotes competence in pipe welding with emphasis on power sources, electrode/filler metal selection on various joint designs, techniques, and positions for welding. Instruction includes safety, math, and proper procedures in making fillet and groove welds that are in compliance with structural and pipe welding codes.

Certificate Requirements

Course Code	Course Title	Units
WELD 140	Mathematics for Welding Technicians	3
WELD 322	Shielded Metal Arc Welding (Pipe)	3
WELD 332	Gas Tungsten Arc Welding (Pipe)	3
Total Units:		**9**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- interpret electrode and filler metal classifications and specifications.
- select correct amperage setting for the job application.
- define principles of arc welding.
- perform Shielded Metal Arc Welding and Gas Tungsten Arc Welding operations in various positions using selected electrodes on different joint designs.
- use math in welding applications.

Career Information

Certificate completers may find employment in a number of industries, including PG&E pipeline construction, oil refining, power generation, structural building, bridge construction, and small commercial fabricating shops.

Welding Equipment Maintenance and Blueprint Interpretation (234 hours) Certificate

This certificate promotes competence in solving equipment, mathematical and manufacturing problems that apply to the welding trade. It emphasizes metal placement, measurement, and layout of tools used in construction, as well as the fundamentals of blueprint reading and welding equipment repair.

Certificate Requirements

Course Code	Course Title	Units
WELD 107	Welding Equipment Maintenance	3
WELD 140	Mathematics for Welding Technicians	3
WELD 300	Introduction to Welding (3)	3
or WELD 301	Introduction to Welding Theory (3)	
WELD 342	Symbol Reading, Layout and Fabrication	3
Total Units:		**12**

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate algebraic expressions by substituting given numbers for letter values.
- solve formulas by substituting numbers for letters, analyzing word statements, and diagramming values.
- calculate area, radius, and diameter of a circle.
- calculate area, radius, and central angles of a sector.
- measure angles in degrees, minutes, and seconds.
- identify and demonstrate the proper use of common power tools and accessories used in the welding trade.
- interpret fabrication blueprints using a systematic process.
- interpret graphic welding symbols.
- interpret electrical and electronically controlled circuits.
- evaluate testing equipment used for welding maintenance repair.

Welding (WELD) Courses

WELD 105 Introduction to Metal Sculpture

Units: 1.5

Hours: 18 hours LEC; 27 hours LAB

Prerequisite: None.

This course covers metal sculpture techniques, design principles, and materials used for sculpture for functional and nonfunctional art forms, on ferrous and non-ferrous metals. Techniques on the major welding processes such as Shielded Metal Arc, Gas Metal Arc, Gas Tungsten Arc, and Oxy-Acetylene are an integral part of the course, as well as related safety issues.

WELD 107 Welding Equipment Maintenance

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers the basics of welding equipment maintenance, troubleshooting, and repair. Electrical and electronically controlled circuits are discussed and tested. Overall theory of operation and safety are presented, as well as maintenance scheduling and the use of electronic test equipment and other measuring devices. Field trips may be required.

WELD 115 Code Welding

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: WELD 300 with a "C" grade or better, or a minimum of one year of welding experience.

This course provides individualized training for welder performance qualification. Code and test requirements are presented. Welders select the code, metal, process, and positions to be used. Preparation for competing in the SkillsUSA regional, state, and national competition is also covered. This course may be taken up to four times for credit with different competitions. A field trip and participation at the site of the SkillsUSA regional competition are required.

WELD 117 Ultrasonic Testing Level One

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: None.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course covers the theory, technique, application, and evaluation used in the material processing, welding, and inspection industries. Ultrasonic testing as applied to industry practices, such as building construction, aeronautics, shipbuilding, materials fabrication, and others, is covered. Successful completion of this course certifies that the requirements of the American Society of Nondestructive Testing (ASNT) TC-1A for UT level I are met.

WELD 118 Ultrasonic Testing Level Two

Units: 3

Hours: 45 hours LEC; 27 hours LAB

Prerequisite: WELD 117 with a "C" or better, or evidence of completion of UT Level I certification.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

This course covers advanced theory, technique application, and evaluation techniques used in the material processing, welding, and inspection industries. It covers advanced ultrasonic testing as applied to industry practices such as building construction, aeronautics, shipbuilding, and materials fabrication. Successful completion of this course meets the requirements of the American Society of Nondestructive Testing (ASNT) TC1-A for Ultrasonic Testing Level II.

WELD 140 Mathematics for Welding Technicians

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

General Education: Local GE L2

This course covers the application of mathematics principles in technical and trade work. Areas covered are fundamentals of general mathematics, common fractions, decimal fractions, percent, signed numbers, measurements, customary measurement units, metric measurement units, steel rules and vernier calipers, fundamentals of algebra, basic algebraic operations, fundamentals of plane geometry, triangles, polygons, circles, areas, volumes, and fundamentals of trigonometry.

WELD 150 Employability Skills for Technical Careers

Same As: AT 107 and ET 250

Units: 2

Hours: 36 hours LEC

Prerequisite: None.

General Education: Local GE L7B

This course provides the opportunity to explore technical careers while developing valuable work and life skills. It is an introduction to a variety of related occupations, emphasizing technical careers in the Sacramento area. Activities are designed to enhance personal development, employability skills, and self-esteem through leadership, citizenship, and character development. This course is not open to students who have completed AT 107 or ET 250.

WELD 155 Industry Training

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

This course covers welding processes, knowledge, and skills specific to employers' needs. Workplace safety and etiquette are included. Metal fabrication skills for specific employment needs and welding certification testing are covered if requested by employers.

WELD 294 Topics in Welding

Units: 0.5 - 5

Hours: 9 hours LEC; 27 - 270 hours LAB

Prerequisite: None.

This course provides an opportunity to study current topics in welding technology that are not included in existing courses.

WELD 295 Independent Studies in Welding

Units: 1 - 3

Prerequisite: None.

WELD 298 Work Experience in Welding

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses. Students are advised to consult with the Welding Department faculty to review specific certificate and degree work experience requirements.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability within the welding field. 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

WELD 299 Experimental Offering in Welding

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

WELD 300 Introduction to Welding

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Transferable: CSU

This course is an introduction to welding processes, including shielded metal arc, gas metal arc, flux-cored gas shield and self shield, gas tungsten arc, oxyacetylene cutting and welding on joint designs, and positions used in industry. Safety in arc welding, oxyacetylene, and plasma cutting is also covered. Field trips may be required. This course is not open to students who have already completed WELD 301.

WELD 301 Introduction to Welding Theory

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course is an introduction to welding process theory and common industry standards, including shielded metal arc, gas metal arc, flux-cored gas shield and self shield, gas tungsten arc, oxyacetylene cutting and welding on joint designs, and positions used in industry. Safety in arc welding, oxyacetylene, and plasma cutting is also covered. This course is not open to students who have already completed WELD 300.

WELD 302 Introduction to Welding Metallurgy

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Corequisite: WELD 300

Transferable: CSU

This course provides a general overview of basic metallurgy of ferrous and non-ferrous metals. Topics include various steel making processes, different types of furnaces, identifying types of steels, and their mechanical, physical, chemical, and electrical properties. Crystal structures of metals, the iron equilibrium diagram, the periodic table of elements emphasizing those elements associated with steels, metallurgical failure of welds, steel deformation, and heat treatment of steels are also covered. In addition, material hardness using different hardness testing methods, calculation of different steel strengths and stresses, and impact tests using the Charpy and Izod methods are covered. Field trips may be required.

WELD 316 Welding Inspection

Units: 2

Hours: 36 hours LEC

Prerequisite: WELD 300 with a grade of "C" or better; OR at least one year of welding experience.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course covers the welding requirements for any type of welded structure made from commonly used carbon and low-alloy steel construction. Topics include the welding construction industry, rules, regulations, and the principles, requirements, and methods of inspection. It covers weld measurements and discontinuities for evaluation acceptance using a variety of tools. It also emphasizes the lines of communication between the plant managers, welders, welding engineers, design/project engineers, welding foreman/supervisors, shop or field superintendents, and

reporting supervisors. This course offers preparation for the Certified Welding Inspector Examination given by the American Welding Society.

WELD 320 Shielded Metal Arc Welding Structural

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: WELD 300 with a grade of "C" or better; OR at least one year of welding experience.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course covers employment training for welding technicians. It emphasizes developing manipulative proficiency in the use of Shielded Metal Arc Welding (SMAW) in the horizontal (2F-2G), vertical (3F-3G), and overhead (4F-4G) positions on steel. It also covers filler metal classifications, welding power supplies, and welding safety. Welding test plates in accordance with the requirements to AWS D1.1 Structural Welding Code and AWS D1.5 Bridge Code are also covered.

WELD 322 Shielded Metal Arc Welding (Pipe)

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: WELD 320 with a grade of "C" or better; OR a minimum of 2 years of welding experience.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course covers the applications of shielded metal arc welding used to join low-pressure piping systems that carry water and residential natural gas. Topics include: welding required for high pressure critical piping systems such as steam pipe, fuel transportation pipe lines, boilers, offshore oil-rigs, and other critical heavy-duty piping systems.

WELD 330 Gas Tungsten Arc Welding (Plate)

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: WELD 300 with a grade of "C" or better; OR at least one year of welding experience.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course covers Gas Tungsten Arc Welding (GTAW) of aluminum, stainless steel, carbon steel, and other metals used in industry. This course content is relevant to code welding in accordance with the American Society of Mechanical Engineers Section 1X (ASME), the Structural welding Code D1.1 (AWS), and the American Petroleum Institute 1104 (API). It also covers filler metal selection, both specifications and classifications, shielding gases, welding power supplies, and welding safety. Certification and procedure qualification to code specifications are also covered.

WELD 332 Gas Tungsten Arc Welding (Pipe)

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: WELD 330 with a grade of "C" or better; OR a minimum of two years of welding experience.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course covers the application of low-pressure and high-pressure critical piping systems used in oil, gas, nuclear, and chemical industries. It covers Gas Tungsten Arc Welding (GTAW) of aluminum pipe, stainless steel pipe, and carbon steel pipe. It explores code welding in accordance with the American Society of Mechanical Engineers Section 1X (ASME), Structural Welding Code D1.1 (AWS), and American Petroleum Institute 1104 (API). Certification and procedure qualification to ASME Section 1X, AWS D1.1, API 1104 code specifications are also covered.

WELD 333 Gas Metal Arc Welding, Steel

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: WELD 300 with a grade of "C" or better, or a minimum of one year of welding experience.

Transferable: CSU

This course is the study of welding using the Gas Metal Arc Welding (GMAW) process on carbon steels in accordance with the American Welding Society (AWS), Structural welding Code D1.1, and Sheet Steel Code D1.3. It covers semi-automatic wire-feed welding with micro wires on steel plates of varying thicknesses. It also covers joint design and all welding positions, welding power supplies, types of metal transfer (spray, globular, pulsed-arc, and short circuit), filler metal selection, both specifications and classifications, shielding gases used for each type of transfer, and welding safety.

WELD 334 Gas Metal Arc Welding: Ferrous and Non-Ferrous Metals

Units: 2

Hours: 18 hours LEC; 54 hours LAB

Prerequisite: WELD 333 with a grade of "C" or better

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

This course covers semiautomatic wire feed welding using micro wires on aluminum and stainless steel plates of varying thickness. Joint design, gas variations and all welding positions are covered. The emphasis of this course is on code welding aluminum and stainless steels. The content of this course is relevant to code welding in accordance with the American Welding Society (AWS), Structural Aluminum Welding Code D1.2 and Structural Welding Stainless Steel Code D1.6. It also covers welding power supplies, types of metal transfer (spray, globular, pulsed-arc, and short circuit). This course also covers filler metal selection, both specifications and classifications, and shielding gases used for each type of transfer. Welding safety is also covered.

WELD 335 Flux Core Arc Welding

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: WELD 300 with a grade of "C" or better, or a minimum of one year of welding experience.

Transferable: CSU

This course provides training to develop semi-automatic welding skills on carbon steels. Topics include small and large diameter flux cored electrodes, with and without external shielding gas, in all positions on fillet and groove welds. It also provides a thorough technical understanding of the Flux Core Arc Welding process and arc welding safety.

WELD 342 Symbol Reading, Layout and Fabrication

Units: 3

Hours: 36 hours LEC; 54 hours LAB

Prerequisite: None.

Corequisite: WELD 300

Transferable: CSU

This course covers blueprint and welding symbol interpretation. It includes metal layout, measurement, marking, and layout tools used in construction, and techniques of fabrication and assembly methods. It also covers fundamentals of blueprint reading, including basic lines and views, dimensions, notes and specifications, structural shapes, sections, detail, and assembly.

WELD 495 Independent Studies in Welding

Units: 1 - 3

Prerequisite: None.

Transferable: CSU

WELD 499 Experimental Offering in Welding

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Work Experience

Overview

Work Experience (WEXP) is an experiential academic program where students apply what they have learned in the classroom to a work environment.

The program offers students the opportunity to develop technical skills, explore possible career choices, build confidence, network with people in the field, and transition into the world of work.

Dean: Raquel Arata

Department Chair: Vivian Dillon

Phone: (916) 484-8941

Email: DillonV@arc.losrios.edu

Work Experience (WEXP) Courses

WEXP 198 Work Experience - General

Units: 0.5 - 3

Hours: 27 - 162 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

General Education: Local GE L7B

This course provides students with opportunities to acquire desirable work habits, attitudes and career awareness. It is designed for students interested in exploring various career options. Course content includes understanding the application of education to the workforce, completion of Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

This course may be repeated for a maximum of 6 units. This course may be taken up to three times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated.

Students may take up to 16 units total across all Work Experience course offerings. Only one Work Experience course may be taken per semester.

WEXP 298 Work Experience in (Subject)

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

WEXP 498 Work Experience in (Subject)

Units: 0.5 - 4

Hours: 27 - 216 hours LAB

Prerequisite: None.

Enrollment Limitation: Before students can participate in the Work Experience program, Los Rios Community College District must have a signed Employer Agreement on file with the student's employer. If the employer already has an active agreement with the district (viewable at losrios.edu/wexpemployeragreement), no further action is required. In addition, students must have a paid or unpaid internship, volunteer position, or job that aligns with their career goals and a cooperating worksite supervisor who will sign all required course documents. Dual enrollment students are not permitted to enroll in Work Experience courses.

Advisory: Eligibility for ENGL C1000/C1000H (formerly ENGWR 300/480) or ESLW 340

Transferable: CSU

General Education: Local GE L7B

This course provides students with opportunities to reflect on their current skills, knowledge and abilities and explore how these are work assets and how these can be enhanced and/or developed to increase employability 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 Title 5 required forms which document the student's progress and hours spent at an approved work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 27 hours of related work experience for 0.5 unit. An additional 27 hours of related work experience is required for each additional 0.5 units.

Students new to Work Experience will be required to engage weekly while returning participants may meet individually with the instructor as needed. All students are required to attend the first course meeting.

Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times. Students are encouraged to develop new or expanded learning objectives in consultation with their employer when the course is repeated. Only one Work Experience course may be taken per semester.

World Languages

Overview

American River College offers courses in World Languages designed to help students develop a command of a variety of languages necessary to pursue career, transfer and degree goals.

Degrees Offered

A.A.-T. in Spanish

A.A. in Language Studies

Dean: Rocio Owens

Department Chairs: Inés García
Diana Lysinger

Phone: (916) 484-8653

Email: askhb-LAC@arc.losrios.edu

Associate Degrees for Transfer

A.A.-T. in Spanish

The Associate in Arts in Spanish for Transfer (AA-T) program provides students with a major that fulfills the general requirements for transfer to a California State University. Students with this degree will receive priority admission with junior status to the California State University system. Students should work closely with their American River College counselor to ensure that they are taking the appropriate coursework to prepare for majoring in Spanish at the institution they wish to transfer to because major and general education requirements may vary for each CSU and the degree may only transfer to specific institutions.

Students must complete the following Associate Degree for Transfer (ADT) requirements (pursuant to SB1440, §66746):
• 60 semester or 90 quarter CSU-transferable units
• the California General Education Transfer Curriculum (Cal-GETC) 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

All ADTs also require that students must earn a "C" or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is also an acceptable grade for courses in the major if the course is taken on a Pass/No Pass basis.

Degree Requirements

Course Code	Course Title	Units
Required Core:		
A minimum of 16 units from the following:		16[1]
A) Sequence for Spanish heritage speakers		
SPAN 411	Intermediate Spanish (4)	

Course Code	Course Title	Units
SPAN 412	Intermediate Spanish (4)	
SPAN 413	Spanish for Native Speakers I (4)	
SPAN 415	Spanish for Native Speakers II (4)	
B) Sequence for non-Spanish heritage speakers		
SPAN 401	Elementary Spanish I (4)	
SPAN 402	Elementary Spanish II (4)	
SPAN 411	Intermediate Spanish (4)	
SPAN 412	Intermediate Spanish (4)	
List A:		
A minimum of 3 units from the following:		3[2]
ENGLT 335	Latino, Mexican-American, and Chicano Literature (3)	
ETHNS 360	Introduction to Chicana/o/x Studies (3)	
HIST 327	History of the Chicano/Mexican American (3)	
HIST 373	History of Mexico (3)	
HIST 374	History of Latin America to 1830 (3)	
HIST 375	The History of Modern Latin America and Caribbean (3)	
SOC 325	Chicano Culture (3)	
SPAN 361	Conversational Spanish, Intermediate (3)	
SPAN 362	Conversational Spanish, Intermediate (3)	
SPAN 427	Introduction to Spanish American Literature (3)	
Total Units:		**19**

[1]Students who meet the prerequisite for core courses in Sequence A or B through the prerequisite challenge process need to consult with a Department faculty member to select alternative courses and submit a course substitution petition. At least 18 units in the major must be completed.

[2]Students following the Sequence for non-Spanish heritage speakers may opt to use SPAN 413 or SPAN 415 to meet this requirement.

The Associate in Arts in Spanish 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) the California General Education Transfer Curriculum (Cal-GETC) Requirement.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- demonstrate proficiency in the five skills as mandated by the competency guidelines of the American Council of the Teaching of Foreign Languages (ACTFL): comprehension, speaking, reading, writing, and understanding the people and culture of Spanish-speaking countries.
- utilize grammatical structures of Spanish.
- read and understand Spanish proficiently as found, for example, in Spanish language newspapers, magazines, short stories, essays, and selections of poetry written by Spanish, Spanish-American, Afrolatina/o/x, and Chicana/o/x authors.
- demonstrate writing and composition skills in Spanish.
- critique and discuss Latin American, Peninsular, Chicana/o/x, Afrolatina/o/x, and Indigenous literature in a historical context.
- analyze and discuss major historical events and periods in the history of Spanish-speaking countries.
- compare and contrast aspects of the Spanish-speaking culture that are different or similar to their own culture.
- compare and contrast aspects of Spanish to their first language.
- recognize regional linguistic and lexical differences including influences from indigenous languages.
- describe the complexity and struggles of Latina/o/x racialized groups in Spanish-speaking countries and the United States.
- analyze how struggle, resistance, social justice, solidarity and liberation are experienced by Latina/o/x communities socially, linguistically, and politically.

Career Information

This degree is designed to facilitate students' successful transfer to four-year colleges that prepare them for a variety of career opportunities, such as airlines/travel, banking, bilingual education, bilingual telecommunications, emergency services, foreign service, imports and exports, international business, intelligence/military services, IRS/State Franchise Tax Board, law enforcement/correctional officer, social services, translating/interpreting, tourism, and world language instructor. Some careers may require additional training specific to the trade.

Associate Degrees

A.A. in Language Studies

This degree provides an area of emphasis in communication skills in both English and foreign languages. It is intended for students wishing to develop communication skills for the workplace. Students who work closely with their counselors

can use this area of emphasis to prepare for majoring at a four-year college in world languages as well as any other majors which require proficiency in one or more world languages.

Degree Requirements

Course Code	Course Title	Units
A minimum of 6 units from the following:		6
COMM C1000	Introduction to Public Speaking (3)	
COMM 331	Group Discussion (3)	
COMM 361	The Communication Experience (3)	
COMM 362	Mediated Communication (3)	
ENGL C1000	Academic Reading and Writing (3)	
or ENGL C1000H	Academic Reading and Writing - Honors (3)	
ENGL C1001	Critical Thinking and Writing (3)	
or ENGL C1001H	Critical Thinking and Writing - Honors (3)	
ENGL C1003	Critical Thinking and Writing through Literature (4)	
ENGL 301	College Composition and Literature (3)	
or ENGL 481	Honors College Composition and Literature (3)	
A minimum of 12 units from the following:		12
All 12 units from this list must be completed in a single language.		
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 318	American Sign Language V (4)	
GERM 401	Elementary German I (4)	
GERM 402	Elementary German II (4)	
GERM 411	Intermediate German (4)	
GERM 412	Intermediate German (4)	
ITAL 401	Elementary Italian (4)	
ITAL 402	Elementary Italian (4)	
ITAL 411	Intermediate Italian (4)	
ITAL 412	Intermediate Italian (4)	
RUSS 401	Elementary Russian (4)	
RUSS 402	Elementary Russian (4)	
RUSS 411	Intermediate Russian (4)	
RUSS 412	Intermediate Russian (4)	
RUSS 413	Russian for Heritage Speakers I (4)	
RUSS 415	Russian for Heritage Speakers II (4)	
SPAN 401	Elementary Spanish I (4)	
SPAN 402	Elementary Spanish II (4)	
SPAN 411	Intermediate Spanish (4)	
SPAN 412	Intermediate Spanish (4)	
SPAN 413	Spanish for Native Speakers I (4)	
SPAN 415	Spanish for Native Speakers II (4)	
Total Units:		**18**

The Language Studies Associate in Arts (A.A.) degree may be obtained by completion of the required program, and either (a) the Local General Education Pattern or (b) the California General Education Transfer Curriculum (Cal-GETC), plus sufficient electives for a total of at least 60 units. See ARC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- write expository and argumentative papers.
- synthesize ideas and develop conclusions.
- examine the connection between culture and communication.
- engage in conversation and written correspondence in a language other than English.

Career Information

This degree prepares students for immediate employment in language-focused fields by developing practical communication skills and cultural competence. Career paths include healthcare interpreting, emergency and public services, social services, bilingual education support, government agencies, international business, tourism, translation and interpreting, and other community-based professions. Some positions may require additional training or certification.

German (GERM) Courses

GERM 401 Elementary German I

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course is an introduction to the language of the German-speaking people. It includes the fundamentals of German pronunciation and grammar, as well as the development of listening, reading, and writing with emphasis on the communicative skills. This course is equivalent to two years of high school German.

GERM 402 Elementary German II

Units: 4

Hours: 72 hours LEC

Prerequisite: GERM 401 with a grade of "C" or better or two years of high school German

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course continues to develop proficiency in speaking, reading, and writing German. It also explores German culture and affords opportunities to make cross-linguistic and cross-cultural comparisons.

GERM 411 Intermediate German

Units: 4

Hours: 72 hours LEC

Prerequisite: GERM 402 with a grade of "C" or better or three years of high school German

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course, which is the third in a series of four German courses, continues to develop proficiency in speaking, listening, reading, and writing German. It reviews German grammar and offers readings of varied texts, which further explore study of historical and cultural background of German-speaking countries and afford opportunities to make cross-linguistic and cross-cultural comparisons.

GERM 412 Intermediate German

Units: 4

Hours: 72 hours LEC

Prerequisite: GERM 411 with a grade of "C" or better or four years of high school German.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This intermediate-level German course provides continued development of the language and cultural awareness of the German-speaking world. It includes further development of listening, speaking, reading, and writing skills in German with emphasis on communicative skills.

GERM 495 Independent Studies in German

Units: 1 - 3

Prerequisite: None.

Transferable: CSU

GERM 499 Experimental Offering in German

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Italian (ITAL) Courses

ITAL 351 Conversational Italian, Elementary I

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course is an introduction to the language and culture of the Italian-speaking world. It features the development of listening, speaking, reading, and writing skills in Italian with emphasis on communicative skills, oral proficiency, and development of Italian cultural awareness. Conversations and class discussions, both controlled and spontaneous, are used to develop basic conversational skills in Italian.

ITAL 352 Conversational Italian, Elementary II

Units: 3

Hours: 54 hours LEC

Prerequisite: ITAL 401 with a grade of "C" or better; ITAL 351 with a grade of "C" or better or two years of high school Italian

Transferable: CSU

This course is designed for students at the second-semester level in Italian. It continues the development of listening, speaking, reading, and writing skills in Italian through conversations and discussions, both controlled and spontaneous. Emphasis includes oral proficiency and development of Italian cultural awareness.

ITAL 401 Elementary Italian

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L3

This course is an introduction to the Italian language and culture of Italy within the context of the geography, history, art, and customs of the Italian-speaking world. It includes the development of listening, speaking, reading, and writing Italian with emphasis on the communicative skills, as well as the fundamentals of Italian pronunciation and grammar. Students approach language acquisition through a cultural perspective.
This course is equivalent to two years of high school Italian.

ITAL 402 Elementary Italian

Units: 4

Hours: 72 hours LEC

Prerequisite: ITAL 401 with a grade of "C" or better; or 2 years of high school Italian.

Transferable: CSU; UC

General Education: Local GE L3

This course focuses on the appreciation and analysis of cultural, philosophical, literary, and artistic works while further developing skills in listening, speaking, reading, and writing Italian. It also emphasizes communicative skills, as well as the fundamentals of Italian pronunciation and grammar. Language acquisition is approached through a historical and cultural perspective.

ITAL 411 Intermediate Italian

Units: 4

Hours: 72 hours LEC

Prerequisite: ITAL 402 with a grade of "C" or better; or 3 years of high school Italian.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This intermediate-level Italian course provides continued development of the language and culture of Italy. It includes further development of listening, speaking, reading, and writing skills in Italian with emphasis on communicative skills. Additionally, it covers more complex grammar topics and provides further study of the cultural and historical background of Italy.

ITAL 412 Intermediate Italian

Units: 4

Hours: 72 hours LEC

Prerequisite: ITAL 411 with a grade of "C" or better; or 4 years of high school Italian.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This intermediate-level Italian course provides continued development of the language and culture of Italy. It includes further development of listening, speaking, reading and writing skills in Italian with emphasis on communicative skills. Additionally, it reviews and provides further study and complex grammar topics of the cultural and historical background of Italy as well as its major literary types and works.

ITAL 495 Independent Studies in Italian

Units: 1 - 3

Prerequisite: None.

Transferable: CSU

ITAL 499 Experimental Offering in Italian

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Russian (RUSS) Courses

RUSS 401 Elementary Russian

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L3

This course is an introduction to the Russian language and culture of Russia. It includes the development of listening, speaking, reading, and writing skills in Russian with emphasis on the communicative skills, as well as the fundamentals of Russian pronunciation and grammar. This course is equivalent to two years of high school Russian.

RUSS 402 Elementary Russian

Units: 4

Hours: 72 hours LEC

Prerequisite: RUSS 401 with a grade of "C" or better OR two years of high school Russian.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course provides continued development of the Russian language and culture. It includes further development of listening, speaking, reading, and writing skills in Russian with emphasis on communicative skills, as well as the fundamentals of Russian pronunciation and grammar. Cross-linguistic and cross-cultural comparisons are emphasized.

RUSS 411 Intermediate Russian

Units: 4

Hours: 72 hours LEC

Prerequisite: RUSS 402 with a grade of "C" or better, or three years of high school Russian.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This intermediate-level Russian course provides continued development of the language and culture of the Russian-speaking world. It includes further development of listening, speaking, reading, and writing skills in Russian with emphasis on communicative skills.

RUSS 412 Intermediate Russian

Units: 4

Hours: 72 hours LEC

Prerequisite: RUSS 411 with a grade of "C" or better, or placement through the assessment process.; RUSS 411 with a grade of "C" or better or 4 years of high school Russian

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This intermediate-level Russian course provides continued development of the language and cultural awareness of the Russian-speaking world. It includes further development of listening, speaking, reading, and writing skills in Russian with emphasis on communicative skills.

RUSS 413 Russian for Heritage Speakers I

Units: 4

Hours: 72 hours LEC

Prerequisite: RUSS 411 or Russian heritage speaker proficiency as assessed by an oral interview with the instructor in Russian.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course offers the fundamentals of spoken and written Russian for heritage speakers with different levels of Russian who want to gain literacy and improve their Russian skills. It covers the structure of the language, oral communication, spelling, and fundamentals of grammar and composition. In addition, the course introduces the student to the geography and culture of the Russian-speaking world.

RUSS 415 Russian for Heritage Speakers II

Units: 4

Hours: 72 hours LEC

Prerequisite: RUSS 413 with a grade of "C" or better, or placement through the assessment process.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course is designed as a continuation of Russian 413. It offers the fundamentals of spoken and written contemporary Russian for the native speakers of Russian. It covers more advanced structures of the language, oral communication, and composition. This course focuses primarily on major literary movements and developments in the 20th century Russian literature and cinema. In addition, the course reviews problem areas of Russian grammar and introduces some advanced topics in grammar and syntax. This course is conducted in Russian.

RUSS 495 Independent Studies in Russian

Units: 1 - 3

Prerequisite: None.

Transferable: CSU

RUSS 499 Experimental Offering in Russian

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Spanish (SPAN) Courses

SPAN 131 Elementary Spanish Lab I

Units: 0.5 - 1

Hours: 27 - 54 hours LAB

Prerequisite: None.

Advisory: Concurrent enrollment in SPAN 401.

This laboratory course enables Spanish language learners to develop, expand, and reinforce multiple Spanish language skills while working independently and/or in small groups. Coursework includes integrated study topics related to vocabulary, grammar, reading, writing, listening, and oral skills covered in first semester Spanish courses. Students may register until the sixth week of the semester. This course may be taken up to 2 times, for a total of 1.0 unit, using different topics. Pass/No Pass only.

SPAN 132 Elementary Spanish Lab II

Units: 0.5 - 1

Hours: 27 - 54 hours LAB

Prerequisite: None.

Advisory: SPAN 131, or concurrent enrollment in SPAN 402.

This laboratory course enables Spanish language learners to continue developing, expanding, and reinforcing multiple Spanish language skills while working independently and/or in small groups. Coursework includes integrated study topics related to vocabulary, grammar, reading, writing, listening, and oral skills covered in second semester Spanish courses. Students may register until the sixth week of the semester. This course may be taken up to two times for a total of 1.0 unit, using different topics. Pass/No Pass only.

SPAN 133 Intermediate Spanish Lab I

Units: 0.5 - 1

Hours: 27 - 54 hours LAB

Prerequisite: None.

Advisory: SPAN 132 or concurrent enrollment in SPAN 411.

This laboratory course enables Spanish learners to develop, expand, and reinforce multiple Spanish language skills while working independently and/or in small groups. Coursework includes integrated study topics related to vocabulary, grammar, reading, writing, listening, and oral skills covered in third semester Spanish courses. Students may register until the sixth week of the semester. This course may be taken up to 2 times, for a total of 1.0 unit, using different topics. Pass/No Pass only.

SPAN 299 Experimental Offering in Spanish

Units: 0.5 - 4

Prerequisite: None.

This is the experimental courses description.

SPAN 351 Conversational Spanish, Elementary

Units: 3

Hours: 54 hours LEC

Prerequisite: None.

Transferable: CSU

This course is an introduction to the language and culture of the Spanish-speaking world. It includes the development of speaking, reading, writing and listening to Spanish with emphasis on communicative skills. Students use class discussions and group interaction, both controlled and spontaneous, to develop basic conversational skills in Spanish.

SPAN 352 Conversational Spanish, Elementary

Units: 3

Hours: 54 hours LEC

Prerequisite: SPAN 351 OR SPAN 401 with a grade of "C" or better or two years of high school Spanish.

Transferable: CSU

This course is for students at the second-semester level in Spanish. It includes the development of listening, speaking, reading, and writing Spanish with emphasis on communicative skills. Class discussions and group interaction, both controlled and spontaneous, are used to develop basic conversational skills in Spanish. Emphasis includes oral proficiency and development of Hispanic cultural awareness.

SPAN 361 Conversational Spanish, Intermediate

Units: 3

Hours: 54 hours LEC

Prerequisite: SPAN 352 OR SPAN 402 with a grade of "C" or better, or three years of high school Spanish.

Transferable: CSU

This course is designed for students at the third-semester level in Spanish. It includes the development of listening, speaking, reading, and writing Spanish with emphasis on communicative skills. Discussions and group interaction, both controlled and spontaneous, are used to develop basic conversational skills in Spanish. Emphasis includes oral proficiency and development of Hispanic cultural awareness.

SPAN 362 Conversational Spanish, Intermediate

Units: 3

Hours: 54 hours LEC

Prerequisite: SPAN 361 OR Spanish 411 with a grade of "C" or better or 4 years high school Spanish

Transferable: CSU; UC

General Education: Local GE L3

This course covers language and culture of the Spanish-speaking world. It continues the development of listening, speaking, reading, and writing Spanish with emphasis on communicative skills. Discussions and group interaction, both controlled and spontaneous, are used to develop conversational skills in Spanish.

SPAN 401 Elementary Spanish I

Units: 4

Hours: 72 hours LEC

Prerequisite: None.

Transferable: CSU; UC

General Education: Local GE L3

C-ID: C-ID SPAN 100

This course introduces the language and culture of the Spanish-speaking world. It includes the development of listening, speaking, reading, and writing Spanish with emphasis on the communicative skills, as well as the fundamentals of Spanish pronunciation and grammar. This course is equivalent to two years of high school Spanish.

SPAN 402 Elementary Spanish II

Units: 4

Hours: 72 hours LEC

Prerequisite: SPAN 401 with a grade of "C" or better or two years of high school Spanish.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID SPAN 110

This course provides continued development of the language and explores history and culture of the Spanish-speaking world. It includes further development of listening, speaking, reading, and writing Spanish with emphasis on communicative skills, as well as the fundamentals of Spanish pronunciation and grammar. Language acquisition is approached through a historical and cultural perspective.

SPAN 411 Intermediate Spanish

Units: 4

Hours: 72 hours LEC

Prerequisite: SPAN 402 with a grade of "C" or better OR three years of high school Spanish.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID SPAN 200

This intermediate-level Spanish course provides continued development of the language and culture of the Spanish-speaking world. It includes further development of listening, speaking, reading, and writing skills in Spanish with emphasis on communicative skills. Additionally, it covers more complex grammar topics and provides further study of the cultural and historical background of Spanish-speaking countries.

SPAN 412 Intermediate Spanish

Units: 4

Hours: 72 hours LEC

Prerequisite: SPAN 411 with a grade of "C" or better or 4 years of high school Spanish

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID SPAN 210

This intermediate-level Spanish course provides continued development of the language and culture of the Spanish-speaking world. It includes further development of listening, speaking, reading, and writing skills in Spanish with emphasis on communicative skills. Additionally, students review and further study complex grammar topics related to the cultural and historical background of Spanish-speaking countries as well as their major literary types and works.

SPAN 413 Spanish for Native Speakers I

Units: 4

Hours: 72 hours LEC

Prerequisite: Spanish native speaker proficiency or the equivalent intermediate level as assessed by the Foreign Language Department Assessment Process at American River College.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID SPAN 220

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. It focuses primarily on tenses in the indicative mode. This course also covers diacritical marks, like the accent mark, and their uses. In addition, it introduces the student to the geography and culture of the Spanish speaking world. This course is conducted entirely in Spanish.

SPAN 415 Spanish for Native Speakers II

Units: 4

Hours: 72 hours LEC

Prerequisite: SPAN 413 with a grade of "C" or better, or placement through the assessment process.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

C-ID: C-ID SPAN 230

This course is a continuation of Spanish 413. It offers the fundamentals of spoken and written Spanish for the native speaker of Spanish. It covers the structure of the language, oral communication, fundamentals of grammar and composition. Focus is placed primarily on the conditional and subjunctive forms, the future tense, and the compound tenses. The course also covers diacritical marks, like the accent mark, and their uses. In addition, the course introduces the student to the geography and culture of the Spanish speaking world. This course is conducted in Spanish.

SPAN 427 Introduction to Spanish American Literature

Units: 3

Hours: 54 hours LEC

Prerequisite: SPAN 411 with a grade of "C" or better, or placement through the assessment process.

Transferable: CSU; UC

General Education: Local GE L3; Cal-GETC Area 3B

This course introduces students to Spanish and Latin American Literature. It covers the analysis of a variety of literary formats that include short stories, poems, plays, and novel excerpts from the established literary canon. Films are integrated to develop auditory skills and to engage students in discussions. It emphasizes critical thinking, interpretation, speaking, and writing skills, and is conducted entirely in Spanish.

SPAN 495 Independent Studies in Spanish

Units: 1 - 3

Prerequisite: None.

Transferable: CSU

SPAN 499 Experimental Offering in Spanish

Units: 0.5 - 4

Prerequisite: None.

Transferable: CSU

This is the experimental courses description.

Administrators, Faculty, and Staff

College Administrators

President

Cardoza, Lisa (2023)
President
B.A., M.A., Stanford University
Ed.D., University of Texas Rio Grande Valley

Vice Presidents

Daroy, Angela (2007)
Vice President, Instruction
B.A., Sonoma State University
M.S., Texas A&M University

Vang, Koue (2001)
Vice President of Administration
B.S., M.S., University of Phoenix

Miramontes-Quiñones, David (2019)
Vice President, Student Services and Equity
B.A., M.S., CSU Sacramento
M.B.A, Ph.D., University of the Cumberlands

Associate Vice Presidents

Booth, Derrick (2023)
Associate Vice President, Instruction, Workforce Development
B.S., CSU Chico
M.S., Ph.D., University of Washington

Herndon, Doug (2015)
Associate Vice President, Instruction, Curriculum
B.A., M.A., CSU Sacramento

Lednicky, Margaret (2022)
Associate Vice President, Administrative Services
B. Arch., University of Kansas
M.B.A., CSU Sacramento

Roberson, Steven (2022)
Associate Vice President, Student Services and Equity
B.S., Ed.D., CSU Sacramento
M.S., Ohio University

Windham, Adam (2019)
Associate Vice President, Instruction and Enrollment Management
M.S., San Francisco State University

Deans

Aguilar, Gary (1999)
Dean, Manufacturing, Construction & Transportation
B.Arch., California State Polytechnic University
M.A., University of Phoenix

Arata, Raquel (2016)
Dean, Career Education and Workforce Development
B.A. Santa Clara University
M.A., Syracuse University
Ed.D., Drexel University

Arrieta, Corinne (2005)
Dean, Arts
B.A. Grove City College
M.A. CSU Sacramento
Ed.D., Oregon State University

Beckhorn, Nisha (2006)
Dean, Student Services, Counseling and Transfer Services
B.S., UC Davis
M.S., CSU Sacramento

Blodgett, Hannah (2014)
Dean of Outreach, First Year Experience and Pathway Communities
B.A., UC Santa Cruz
M.P.P.A., CSU Sacramento

Brock, Michelle (2012)
Dean, STEM, Math, and Computer Science
B.A., Secondary Credential CSU Sacramento
M.A. University of San Francisco

Chao, Pamela (1996)
Dean, Language and Communication
B.A., M.A., University of Chicago

Corbin, Kirsten (2006)
Dean, Business
B.S., M.A., San Francisco State University

Fish, Melissa (2002)
Dean, Natomas Center and Dual Enrollment
B.A., Boston College
M.B.A., CSU Sacramento

Garcia, Diana (2017)
Dean, Student Support Programs
B.A., B.S., UC Davis
M.A., CSU Sacramento

Harps, Marwa (2025)
Dean, Student Engagement and Completion
B.B.A., M.B.A., Delta State University

Hoffpauir, Carina (2016)
Dean, English
B.A., University of Wyoming
M.A., Ph.D., UC Santa Barbara

Keebler, Joel (2022)
Dean, STEM, Science
A.A., Roane State Community College
B.A., B.S., M.S., University of Tennessee

Kramer, Kevin (2025)
Interim Dean, Kinesiology and Athletics
B.S., UC Santa Barbara
M.A., National University

Madramootoo, Narine (2015)
Dean, Health and Education
B.S., CSU Sacramento
M.S., University of Nebraska, Kearney

McCormack, John (2001)
Dean, Public Service and Apprenticeship
B.V.E., CSU Sacramento
M.Ed., CSU Sacramento

Modesto, Mikenna (2008)
Dean, Library, Learning Resources, and Distance Education
B.A., CSU Long Beach
M.A., CSU Sacramento
Ph.D., UC Davis

Valles, Brenda (2024)
Dean, Equity, Institutional Effectiveness and Innovation
B.A., CSU Monterey Bay
M.Ed., Ph.D., University of Utah

Wright, Matt (2008)
Dean, People, Culture and Society
B.A., CSU Chico
M.A., CSU Chico

Faculty

Business

Bennett, Heidi (2009)
Business Technology
A.A., Cosumnes River College
B.B.A., M.B.A.-M.I.S., National University, Sacramento

Chang, Kate (2022)
Legal Studies
B.A., UC San Diego
J.D., University of Arizona

Gonzalez, Robert (2000)
Business
B.A, B.S., CSU Sacramento
M.B.A., Loyola Marymount University
J.D., Loyola Law School

Halle, Joel (2003)
Accounting
B.S., M.B.A., CSU Sacramento

Kinuthia, F. Kamau (2001)
Economics
B.A., Principia College, Illinois
M.S., UC Davis

Lovelace, Kevin (2025)
Business/Business Technology
B.A., CSU, Sacramento
M.B.A., University of Phoenix, Sacramento
M.A., CSU, Sacramento
Ed.D., University of San Francisco

Mokarami, Behrang (2003)
Accounting
B.S., M.T., Pennsylvania State University

Munoz, David
Accounting
M.B.A, Finance, CSU Sacramento

Nagi-Condos, Rachna K. (1992)
Marketing/Management
B.S., Cal Poly
M.B.A., CSU Stanislaus

Piovesan, Alice (2025)
Marketing/Management
B.S., CSU Sacramento
M.B.A., CSU Sacramento

Rosario, Brian (2006)
Economics
B.S., University of the Philippines
M.A., Ph.D., UC Davis

Yago, Jacqueline K. (2025)
Paralegal Studies
B.A., UC Los Angeles
J.D., UC Davis

Zhang, Lingling (2009)
Accounting
B.A., Xiamen University
M.S., State University of New York
M.B.A., CSU Hayward

Counseling, Transfer, and Student Services

Alexander, Carie (2019)
DSPS
B.S., Saint Mary's College of California
M.S., CSU Sacramento

Allie, Diana (2014)
Counseling
B.A., UC Davis
M.S., CSU Sacramento

Andre, Susan (1999)
Counseling
B.S., CSU Fullerton
M.A., San Jose State University

Aranda, Amanda (2018)
DSPS
B.S., M.S., CSU Sacramento

Ayala, Connie C. (2006)
EOP&S/CARE Coordinator
B.S., UC Davis
M.S., CSU Sacramento
Ed.D., CSU Sacramento

Bevens, Megan (2009)
Articulation Officer
A.A., American River College
B.A., UC Santa Barbara
M.S., CSU Sacramento

Delgado, Lydia (2014)
Counseling
A.A. Cerritos College
B.S., CSU Fullerton
M.S., CSU Long Beach

Fong, Angela (2019)
EOP&S/CARE/NextUP
A.A., Sacramento City College
B.A., M.S., CSU Sacramento

Fortman, Anita (2005)
Counseling
B.S., University of Arizona
M.S., CSU Sacramento

Gomez, Martin (2008)
Transfer Center Counselor/Coordinator
B.A.S., UC Davis
M.A., CSU Sacramento

Griffin, Robert (2017)
Veterans Resource Center
A.A. and A.S., Yuba Community College
B.S., M.S., CSU Sacramento

Herrell, Kim (2002)
Counseling
B.A., UC Davis
M.S., University of LaVerne

Jenkins, Arthur (2016)
EOP&S/CARE/NextUP
B.A., University of the Pacific
M.A., Alabama State University

Lo, Kay (2016)
Counseling
B.A., University of Wisconsin-La Crosse
M.S., University of Wisconsin-Stout
M.Ed., Oregon State University
Ed.D., UC Davis

Martin, Theresa (2026)
DSPS
B.A., M.Ed., UCLA
M.A., Saint Mary's College of California
Ed.D., San Francisco State University

Mireles-Tijero, Mayra (2019)
Counseling
B.A., UC Davis
M.S., CSU Sacramento

Moore, Reyna (2010)
Counseling
B.A. & M.S., CSU Fresno

Mostafa, Nazia (2025)
Counseling
B.A., Ed.D, CSU Sacramento
M.A., Saint Mary's College of California
Ed.D., CSU Sacramento

Nazareno, Randy (2007)
Counseling
A.A., Solano Community College
B.A., CSU Sacramento
M.S., CSU Sacramento

Nelson, Jessica (2008)
Counseling
B.S., CSU Chico
M.S., University of Oregon

Palomares, Carmelita (2017)
Counseling
A.A., Folsom Lake College
B.A., M.S., CSU Sacramento

Queen, Kim (2019)
Counseling
A.A., Cosumnes River College/Folsom Lake Center
B.A., CSU Sacramento
M.A., Chapman University

Quintero, Robert A. (2000)
Counseling
B.A., M.S., San Francisco State University

Ramirez, Richard A. (2000)
Counseling
B.A., CSU Northridge
M.S., San Francisco State University
Ed.D., UC Davis

Reynolds, Tera (2015)
Student Success/Pathways
A.A., American River College
B.S., M.S.W., Ed.D., CSU Sacramento

Rivera, Rafael (2005)
Counseling
B.A., UC Davis
M.S., CSU Sacramento

Roberts-Law, Lisa E. (1991)
Counseling
B.A., University of Illinois
M.S., Illinois State University

Rust, Joe (2006)
DSPS Coordinator
B.A., M.S., CSU Sacramento

Scalzi, Jennifer (2007)
Counseling
A.A., American River College
B.A., M.S., CSU Sacramento

Silva, Jessica (2026)
EOP&S/CARE/NextUp
B.A., State University at New Paltz of New York
M.S., CSU Sacramento

Sjolund, Joe (2002)
DSPS
B.A., M.S., CSU Sacramento

Valdez, Judith (2015)
EOP&S/CARE/NextUP Counselor
A.S., Porterville Community College
B.A., M.S., CSU Sacramento

Vinsant, Denise (2017)
Counseling
A.A., American River College
B.A., M.S., CSU Sacramento

Yatsenko, Tatyana (2015)
EOP&S/CARE/NextUP
A.A., American River College
B.A., Tallinn State Conservatory of Music
M.S., National University

Zavala, Daniel (2026)
CalWORKs
B.A., UC Santa Cruz
M.S., CSU Sacramento

Zepeda, Daniela (2025)
Counseling
B.A., B.A., UC Davis
M.S., Ph.D., CSU Sacramento

English

Angelone, Michael (2008)
English
B.A., M.A., CSU Sacramento

Arambel, Leah A. (2006)
English
B.A., UC Davis
M.A., San Francisco State University
Ph.D., Oregon State University

Arellano, Catherine (2014)
English
A.A., Chabot College
B.A., M.A., UC Berkeley
M.F.A., University of Iowa

Barnard, Gina (2018)
English
B.A., UC Davis
M.F.A., San Diego State University

Borcz, Robyn (2016)
English
M.A., CSU Sacramento

Bradford, Aaron (2015)
English
B.A., M.F.A., CSU, Long Beach

Cooper, Michaela B. (2005)
English
B.A. equiv., Eberhardt-Karls Universitaet, Tuebingen, Germany
B.A., CSU Sacramento
Ph.D., George Washington University

Crowder, Michael (2017)
English
B.A., UC Davis
M.F.A, New School University

Diaz, Melissa (2015)
English
B.A., M.A., CSU Sacramento

Engler-Lynch, Denise (2008)
English
B.A., Santa Clara University
M.A., Arizona State University

Gourdine, Traci L. (2000)
English
B.A., UC Davis
M.A., San Francisco State University

Kiefer, Christian (2009)
English
B.A, Universtiy of Southern California
M.A., CSU Sacramento
Ph.D., UC Davis

Kronzer, Matt (2025)
English
B.A, UC Davis
M.A., Ph.D., CSU Sacramento

Leibrock, Rachel (2017)
Journalism
B.A. (2), CSU Sacramento
M.A., Mills College

Leung, Neue (2015)
English
B.A., National University
M.A., Ed.D., UC Davis

Logan, Thomas E. (2000)
English
B.A., San Francisco State University
M.A., Ph.D., UC Davis

Lovering, Janay (2013)
English
B.A., M.A., CSU Sacramento

Merson, David N. (1998)
English
B.A., Westmont College
M.A., UC Davis

Morgan, Roxanne (2008)
English
B.A., University of Massachusetts
M.A., San Francisco State University

O'Brien, Kathleen (2012)
English
B.A., M.A., CSU Sacramento
Ph.D., University of Oregon

Pries, Shannon S. (2006)
English
B.A., Pomona College
M.A., San Francisco State University

Prieto, Caroline (2018)
English
Certificate, IGETC, Certificate, Teaching Postsecondary Reading, B.A., English (Literature), M.A., English (Composition), San Francisco State University

Spurgeon, Michael L. (2005)
English
B.A., Colby College
M.F.A., University of Arizona, Tucson

Valle, Jesus (2002)
English
A.A., Central Arizona College
B.A., M.A., Stanford University

Fine and Applied Arts

Arnfeld, Rebecca (2016)
Art History
B.A., UC Santa Barbara
M.A. (2), UC Davis

Burleson, B. Kathryn (1989)
Theatre Arts
B.A., CSU Sacramento
M.F.A., UC Davis

Dieu, Anne (2017)
Fashion
B.S., UC Davis
M.S., Kansas State University

Downs, Pamela (2008)
Theatre Arts
B.F.A., Performance, Missouri State University
M.F.A., Acting, UC Davis

Eifertsen, Dyne Chanen (2003)
Music
D.M.A., University of Washington
M.M., University of Massachusetts

Gelfman, Linda (2003)
Art
M.A. CSU Sacramento
B.F.A., University of Illinois

Gilman, Joseph A. (1992)
Music
B.M.J., Indiana University
M.M., Eastman School of Music
Ed.D., University of Sarasota

Knirk, Brian (1999)
Hospitality Management
B.S., Cal Poly
M.B.A., University of Southern California
Ed.D., Drexel University

Marte, Dyanne (2016)
Fashion
B.F.A., Savannah College of Art and Design
M.P.S., Pratt Institute
Ed.D., Liberty University

Martinez, Craig (2008)
Design
B.S., UC Davis

Marvelli, Anthony (2022)
Music
A.A., American River College
B.M., University of North Texas
M.A., Sam Houston State University

Mattson, Sarah S. (2006)
Art
B.F.A., M.F.A., CSU Long Beach

Meier, Anna (2025)
Art
B.F.A., Oregon College of Art and Craft
M.F.A., University of Miami

Nakada, Michael (2023)
Hospitality Management
A.A., American River College
B.A., University of California, Berkeley
M.S., University of Wisconsin-Madison

Parker, Laura (1997)
Art/Computer Graphics
B.A., M.A., CSU Sacramento

Russell, Gail (2002)
Theatre Arts
B.A., San Francisco State University

Shearer, Kirt (2022)
Commercial Music
B.S., Charter Oak College
M.ED., American College of Education

Silva, Douglas (2015)
Culinary Arts
B.A., Sonoma State University

Silva, Nancy (1988)
Theatre Arts
A.A. Orange Coast Junior College
B.A., CSU Sacramento
M.A., M.F.A., University of Minnesota

Stoehr, Matthew (2002)
Art New Media
B.F.A., State University of New York at Fredonia
M.F.A., Ohio University

Thompson, Steven (2000)
Music
B.M., Wichita State University
M.M., D.M.A., University of Southern California

Urkofsky, Teresa (2000)
Hospitality Management
B.V.E., CSUS
California Culinary Academy

Williams, Samuel (2000)
Theatre Arts
B.A., Slippery Rock University, Philadelphia
M.F.A., UC Davis

Wood, Patricia (2017)
Art
B.A., UC Davis
M.F.A., University of Arizona

Worsfold, Brandy (2007)
Art
B.F.A., Missouri State University
M.F.A., University of Florida

Health and Education

Bartoe, Timothy (2018)
Nursing
A.A., Cosumnes River College
A.A., American River College
B.S., Kaplan University
M.S.N., Purdue University
D.N.P., Aspen University

Beccarelli, Lori (2017)
Nutrition
B.S., UC San Diego
R.D., UC Davis Medical Center
Ph.D., UC Davis

Cervantes, Alina (2001)
Early Childhood Education
B.A., UC Davis
B.A., CSU Sacramento

Chakurian, Daphne (TBD)
Nursing

Chou, Susan (2005)
Nutrition
B.A, B.S., M.S., Ph.D., UC Davis

Coldiron, John L. (1979)
Respiratory Care
A.A., A.S., San Bernardino Valley College
B.A., CSU Stanislaus
M.A., U.C. Berkeley

Currier, Daniel
Funeral Service Education
M.S. National University

Czaja, Diane (2017)
Respiratory Care
A.S., Ivy-Tech Community College
B.S., Purdue University

Dupree, Anna (2022)
Nursing
A.D.N. Sacramento City College
B.S.N, CSU San Marcos
MS-L, UC Davis

Garner, Cheri (2008)
Nursing
A.D.N., American River College
B.S.N., M.S.N. Ed., University of Phoenix

Giusti, Anthony (2001)
Nutrition
B.S., M.S., UC Davis

Gonsalves, Jana L. (2005)
Nutrition
B.S., Cal Poly
Ph.D., UC Davis

Goold, Grant (1997)
Paramedic
B.A., CSU Sacramento
M.P.A./H.S.A., Ph.D., University of San Francisco

Hickman, R Lauren (2025)
Early Childhood Education

Ilaga, Lisa (2008)
Respiratory Care
A.S., Frederick Community College
B.S., Salisbury State University

Jones, Marie (2010)
Early Childhood Education
A.A., American River College
B.S., CSU Chico
M.A., CSU Sacramento

Juner, Rob (2003)
Nursing
BS, University of California, Davis
B.S.N., Samuel Merritt University
M.S.N., Grand Canyon University

Kirkman, Jayanti (2018)
Nursing
A.D.N., American River College
M.S., Walden University
D.N.P., Aspen University

LaMarr, Todd (2016)
Early Childhood Education
B.A., M.A., CSU Sacramento

Lopez, Veronica (2016)
Nutrition
B.A., UC Santa Cruz
Ph.D., UC Davis

Nowicki, Lazette (2008)
Nursing
B.S.N., Jamestown College
M.S.N., University of North Dakota
D.N.P., Grand Canyon University

Parrinella, Lisa M. (2006)
Nursing
A.D.N., Chabot College
B.S.N., University of Phoenix
M.S.N, CSU Dominguez Hills
Ed.D., Capella University

Pena-Grafton, Yeny (2017)
Healthcare Interpreting
B.A., CSU Fresno

Rodgers, Monique (2019)
Nursing
A.D.N., American River College
B.A., CSU Sacramento
M.S.N./D.N.P., Grand Canyon University

Rose, Valarie (2015)
Funeral Services Education
Graduate, San Francisco College of Mortuary Science
B.A., University of Phoenix
M.A., Ashford University
M.A., National University
Ed.D., Capella University

Ryther, Christopher T. (2005)
Paramedic
A.A., Santa Barbara City College
B.S., Central Washington University
M.S., St. Mary's College

Sanborn, Stacie (2021)
Nursing
B.S.N, University Hawaii Manoa
M.S.N., UC San Francisco

Simon, Rachael (TBD)
Nursing

Stark, Stacie (TBD)
Nursing

Vavra, Kimberly (2019)
Speech/Language Pathology
M.S., CSU Sacramento

Zajic, Kristina (2009)
Speech/Language Pathology
B.S., M.S., CCC-SLP, CSU Sacramento

Instruction and Learning Resources, Library, Distance Education/Virtual Education Center

Badilla, Araceli (2008)
Beacon Program
A.A., West Valley College
B.A., Santa Clara University
Ed.M., Harvard University

Bimbi, Pamela (2014)
Distance Education
B.A., UC Santa Barbara
M.L.I.S., San Jose State University

Caparas-Reyes, Ceasar (2025)
Library
B.A., UC Davis
M.L.I.S., San Jose State University

Dieli, Alice (2014)
Instructional Development
B.A., SUNY Oswego
M.S. Ed., SUNY Potsdam
Ph.D., Walden University

Harris, Marianne (2016)
Library
A.A., Pima Community College
B.A., M.L.I.S., University of Arizona

Lehmann, Sarah (2008)
Library
B.A., Occidental College
M.L.I.S., UCLA

McCusker, David N. (2005)
Library
B.A., Antioch College
M.L.I.S., University of Pittsburgh

Mroczka, Hilary (2018)
Library
B.A., UC Davis
M.L.I.S., San Jose State University

Squire, Martee (2015)
Library
B.A., CSU Sacramento
M.L.I.S., San Jose State University

Williamson, Kate (2015)
Library
B.A., CSU Chico
M.L.I.S., San Jose State University

Kinesiology and Athletics

Arellanes, Paul (2006)
Kinesiology & Athletics
A.A., Cosumnes River College
B.S., CSU Sacramento
M.S., US Sports Academy

Baiz, Louis (2018)
Kinesiology & Athletics
M.A., CSU Sacramento

Black, Bethani A. (2000)
Kinesiology & Athletics
A.S., Ventura College
B.S., CSU Fresno
M.S., US Sports Academy
CR/M.A., Chapman University

Black, Eric (2005)
Kinesiology & Athletics
B.S., San Jose State University
M.A., Saint Mary's College

Delgado, Lisa (2003)
Kinesiology & Athletics
A.A., College of the Siskiyous
B.A., M.A., CSU Chico

Finnecy, Timothy J. (2006)
Kinesiology & Athletics
B.S., West Virginia University
M.Ed., Las Vegas University

Giorgi, Mark R. (1998)
Kinesiology & Athletics
A.A., Santa Rosa Junior College
B.S., B.A., University of Tulsa
M.A., Saint Mary's College

Hansen, Paul (1997)
Kinesiology & Athletics
B.A., Cal Poly
M.S., CSU Sacramento

Jabery-Madison, Bobak (2009)
Kinesiology & Athletics
A.A., American River College
B.A., UC Davis

Jumelet, Doug A. (2005)
Kinesiology & Athletics
A.A., American River College
A.A., Sacramento City College
B.S., M.S., Cal Baptist University, Riverside

Lambdin, Jennae (2019)
Kinesiology & Athletics
M.A., University of the Pacific

Lowden, Carson (2016)
Kinesiology & Athletics
B.S., UC Davis
M.A., CSU Chico

Matsunami, Joline R. (1990)
Kinesiology & Athletics
A.A., Rio Hondo Community College
B.S., Cal Poly
M.A., Eastern Washington University

Osterhout, Jonathan (2015)
Kinesiology & Athletics
B.S., CSU Sacramento
M.S., Fresno Pacific University

Language and Communications

Aghyarian, Meray (2025)
English as a Second Language
B.A., UC Santa Cruz
M.A., Middlebury Institute of International Studies at Monterey

Arrieta, Corinne (2006)
Spanish
B.A., Grove City College
M.A., CSU Sacramento
Ed.D., Oregon State University

Austin, David (2015)
Communication
B.A., M.A., CSU Los Angeles

Birchall, Jill (2011)
Deaf Culture & ASL Studies
B.S., Gallaudet University
M.S., McDaniel College

Boyer, Alba (2025)
Foreign Languages
A.A., American River College
B.A., M.A., CSU Sacramento

Cervantes, Alina (2001)
Early Childhood Education
B.A., UC Davis
M.A., CSU Sacramento

Chow, Lorraine (1997)
Early Childhood Education
B.S., UC Davis
M.A., UC Santa Barbara

Coleman, Elizabeth (2022)
Communication
B.A., UC Davis
M.A., CSU Sacramento

Driscoll, Jane (2006)
English as a Second Language
B.A., UC Berkeley
M.A., San Francisco State University

Duax, Paul L. (2001)
Communication
B.A., Loras College
M.A., UC Davis

Falli, Caterina (2018)
English as a Second Language
M.A., San Francisco State University

Fertel, Kristine (2003)
English as a Second Language
B.A. UC Riverside
M.A., San Francisco State University

Garcia-Adams, Ines (2008)
Spanish
Baccalaureate Degree, Uni. of Salamanca and Uni. of Valladolid, Spain
M.A., CSU Sacramento

Griffin, Madison (2022)
English as a Second Language
A.A., American River College
B.A., CSU Sacramento
M.A., Columbia University, Teachers College

Haarala, Erik (2017)
English as a Second Language
M.A., CSU Sacramento

Heiser, Ceydy (2002)
Spanish
B.S., Universidad de las Americas
M.A., UC San Diego

Hoggan, Patrick (2002)
English as a Second Language
B.A., Brigham Young University
M.A., UC Davis

Jones, Marie (2010)
Early Childhood Education
A.A., American River College
B.S., CSU Chico
M.A., CSU Sacramento

Joye, Allyson, C. (2001)
English as a Second Language
B.A., UC Davis
M.A., Monterey Institute

Karp, Adam (2002)
Spanish
B.A., Ph.D., UC Davis

Kleist, Rachel[(TBD)
Deaf StudiesDeaf Studies

LaMarr, Todd (2016)
Early Childhood Education
B.A., M.A., CSU Sacramento

Limmaneeprasert, Oranit (2001)
English as a Second Language
B.A., Michigan State University
M.A., Ph.D., University of Hawaii

Lysinger, Diana (2017)
Foreign Languages
B.A./B.Ed., Lithuanian University of Educational Sciences
Ph.D., UC Davis

Montgomery, Thoeung (2007)
English as a Second Language
A.A., Modesto Junior College
B.A., Ed. D., UC Davis
M.A., CSU Sacramento

Moran, Jeffrey (2019)
English as a Second Language
M.A., University of San Francisco

Paez, Alex (2022)
Communication
B.A., San Francisco State University
M.A., University of Pacific

Shrope-Austin, David (2015)
Communication
B.A., M.A., CSU Los Angeles

Shubb, Alisa M. (1998)
Communication
B.A., M.A., UC Davis

Simon, Sabrina (2025)
English as a Second Language
B.A., UC Santa Cruz

Specker, Elizabeth (2008)
English as a Second Language
B.A., SUNY
M.A., Ohio University
Ph.D., University of Arizona

Travis, Margaret (2019)
English as a Second Language
M.A., San Francisco State University

West Oyedele, Erica (2018)
ASL-English Interpreting
A.A., American River College
B.A., CSU Sacramento
M.A., Western Oregon University

Zangeneh-Lester, William (2015)
Humanities
A.A., Sierra College
B.A., M.A., CSU Sacramento

Manufacturing, Construction, and Transportation

Ahmadi, Al (2008)
Electronics Technology
B.S., University of Oklahoma
M.S., Golden Gate University

Drobot, Mikhail (2025)
Diesel/Clean Diesel Technology
A.S., American River College

Evangelisti, Fred (1998)
Electronics Technology
A.A., American River College
B.A., Ed.D., CSU Sacramento
M.A.V.E., Consortium of CSU

French, Benjamin R. (2005)
Automotive Technology
A.S., Sierra Community College
B.V.E., CSU Sacramento

George, Gary T. (2002)
Electronics Technology
A.A., Golden West College
A.S., American River College
B.S., Cal Poly, Pomona

Harper, Eric (2002)
Automotive Technology
A.S., Sierra College
B.S., CSU Sacramento

Hartman, Galen (2024)
Automotive Collision Technology
B.A., Azusa Pacific University

Keith, Jason (2025)
Automotive Technology
A.A., American River College
B.V.E., CSU Sacramento

Messier, Christopher (2015)
Welding Technology
A.S., Cosumnes River College

Meyer, Jordan (2015)
Electronics Technology
B.S., M.S., UC San Diego

Moore, Christopher (2012)
Automotive Technology/Apprenticeship
A.S., American River College
B.S. CSU Sacramento
M.S. CSU Easy Bay

Nokkeo, Jeff (2024)
Design Technology
B.ARCH, Virginia Polytechnic
M.ARCH, Washington-Alexandria Architecture Consortium
M.B.A., Argosy University, Alameda

O'Brien, Suzanne (2025)
Horticulture
B.S., California Polytechnic State University, San Luis Obispo

Reese, Mark Alan (2003)
Welding Technology
A.A., American River College
B.V.E., IMET, CSU Sacramento

Reshetkin, Elisha (2025)
Welding Technology
A.S., American River College

Salahi, Amir (202506)
Electronics Technology
B.S., IA University of Tehran
M.S., California State University of Northridge

Schuster, Randy O. (2006)
Design Technology
B.S.M.E., UC Davis

Sichi, Cielo (2016)
Horticulture
B.S., California State Polytechnic University, San Luis Obispo

Thao, Sak (2025)
Welding Technology
A.S., American River College
B.S., CSU Sacramento

Tran, Ocean (2025)
Electrician Trainee Program
B.S., CSU Sacramento

West, Jennifer (2014)
Automotive Technology
A.S., Sierra College
B.S., CSU Sacramento

People, Culture, and Society

Ahad, Palwasha (2017)
Psychology
B.A University of North Dacoda
M.A, Ph.D University of Nevada, Reno

Akawi, Robin (2017)
Psychology
A.A., Adirondack Community College
B.A., Ph.D., State University of New York Albany

Beasley Cisneros, AnnMarie (2015)
Anthropology
B.A., M.A., CSU Sacramento

Bertaccini, Lisa (2019)
Human Services
M.S.W., CSU Sacramento

Carnero, Mark (2022)
Ethnic Studies
B.A., M.A., Ph.D., CSU Sacramento

Casper-Denman, Kristina (2002)
Anthropology
B.A., Boston College
M.A., Arizona State University
Ph.D., UC Davis

Caton, Ricardo (2016)
History
B.A. University of the Pacific
M.A., Ph.D., UC Santa Barbara

Clark Jr., Brent (2025)
Sociology
B.A., CSU Sacramento
M.A, Ph.D, UC Irvine

Clark, Seth (2025)
History
B.A, UC Davis
M.A, San Francisco State
Ph.D, UC Davis

Collihan, Kathleen (2001)
Political Science
B.S., Santa Clara University
M.A., San Jose State University
Ph.D., UC Santa Barbara

Delgadillo, Marisol (2024)
Anthropology
M.A., CSU Sacramento

Fratello, Natasha (2002)
Psychology
A.A., Ventura College
B.A., UC Santa Barbara
M.S., University of La Verne

Garvey, Andréa P.P. (2003)
Psychology
B.A., Federal University of Pernambuco, Brazil
M.S., Ph.D., University of Utah

Gillman, Anne (2019)
Political Science
Ph.D., Johns Hopkins University

Gonzalez, Araceli (2025)
Ethnic Studies
B.A., University of California Los Angeles
M.P.A., California State University Fresno
Ph.D., University of California Davis

Hashima, Edward (1999)
History
A.B., Stanford University
M.A., Ph.D., UCLA

Hijazi, Nidal (2003)
Sociology
B.S. Santa Clara University
M.A., UC Davis
M.A., CSU Sacramento

Hokerson, Lori (2008)
Psychology
B.A., M.A., Saint Mary's College, Moraga, CA

Leonhardt, Camille (2009)
History
B.A., UC Davis
M.A., CSU Sacramento

Machado, Geraldine (2016)
Psychology/Human Services
B.A., CSU Stanislaus
M.A., CSU Sacramento

Martinez, Joshua (2025)
History
B.A., CSU Sacramento
M.A., CSU Sacramento

McCormick, Marcia (2004)
Psychology
B.S., UC Davis
M.A. UC Santa Barbara

Popowicz, Dylan M. (2022)
Philosophy
A.A., American River College
B.A., CSU Sacramento
M.A., Ph.D, UC Irvine

Pulido, Brandi (2022)
Psychology
B.A, Chapman University
M.A, Brandman University

Reuschel, Hope (2025)
Psychology
B.A., Berea College
M.S., Kentucky University
Ph.D., University of California, Merced

Sacha, Jeffrey O. (2018)
Sociology
B.A., Gonzaga University
M.A., Ph.D., University of Southern California

San Julian, Mieke (2024)
Psychology
A.A, San Joaquin Delta College
B.A, Humboldt State University
M.A, Stanislaus State University

Shimizu, Yujiro (2006)
Research/Psychology
B.A., Simon Fraser University
M.A., Ph.D., Washington University

Smith-Silverman, Sara (2016)
History
B.A., UC Berkeley
M.A., Ph.D., UC Santa Cruz

Tabares, Tressa (2002)
Political Science
B.A., E. Connecticut State University
M.A., UC Davis

Weiner, Joshua J. (2005)
History
B.A., UC Santa Cruz
M.A., Ph.D., Northeastern University

Williams, Angelo (2024)
Ethnic Studies
Ethnic Studies
M.A, Sacramento State University
Ed.D Sacramento State University

Zane, Megan (2026)
Philosophy
B.A., Willamette University
Ph.D., UC Irvine

Zangeneh-Lester, William (2015)
Humanities & Religious Studies
A.A. Sierra College
B.A., M.A., CSU Sacramento
Ph.D. Graduate Theological Union, Berkeley, CA

STEM, Math and Computer Science

Abdul, Alisher (1997)
Mathematics
B.S.,M. S., Moscow St. University
Ph.D., Moscow Institute of Technology & Physics, Institute of Mathematics of the Academy of Sciences of UzSSR

Anishchenko, Lana (2018)
Mathematics
M.S., Tashkent State University

Auyeung, Tak (2000)
Computer Information Science
A.A., Porterville College
B.S. the University of Hong Kong
M.S., Ph.D., UC Davis

Barcellos, Anthony (1987)
Mathematics
A.A., Porterville College
B.S., California Institute of Technology
M.S., CSU Fresno
Ph.D., UC Davis

Bredek Coyne, Cynthia (2008)
Mathematics
B.S., University of South Florida
M.S., University of Central Florida

Burke, John (2017)
Mathematics
B.S., University of Michigan
M.A. and M.S., University of Colorado

Butler, Trisha (2015)
Mathematics
B.S., M.S., University of Pittsburgh

Caputo, Joseph (2018)
Mathematics
B.S., M.A., UC Davis

Chima Sanchez, Francisco (2019)
Mathematics
M.A., CSU Sacramento

Domokos, Cristina (2015)
Mathematics
B.S., Babes-Bolyai University, Romania
M.A., University of Pittsburgh

Etgen, Benjamin (2004)
Mathematics
B.S., CSU Sacramento
M.A.T., UC Davis

Gaudard, Amy L. (2006)
Mathematics
B.S., M.A., UC Davis

Gilbert-Valencia, Daniel (2016)
Computer Information Science
I.G.E.T.C., Mt. San Jacinto Junior College
B.A., UC San Diego
M.S., Ed.D., Drexel University

Halseth, Aileen (2000)
Mathematics
B.A., CSU Sacramento
M.A.T., UC Davis

Halseth, Andrew (2002)
Mathematics
A.A., Solano College
B.A., M.A., San Diego State University

Hayes, Rebecca W. (2001)
Computer Information Science
B.S., CSU Sacramento
M.A., University of San Francisco

Heeren, Christopher (2011)
Mathematics
B.A., M.A., CSU Sacramento

Hermle, Ryan (2016)
Computer Information Science
CA Teaching Credentials
B.S., Cal Poly
M.S., University of Washington

Hojjat, Payam (2005)
Computer Information Science
B.S., CSU Sacramento
M.S., Western Governors University

Jones, Vincent (2012)
Mathematics
B.S., UC Davis
M.S., Texas A & M

Kinoshita, Rory M. (2006)
Mathematics
B.S., Sonoma State University
M.S., UC Davis

Lal, Rajinder (2016)
Mathematics
B.A., M.A., CSU Sacramento

McCarroll, Sharleen (2003)
Mathematics
B.S., M.S., Cal Poly

Messer, Carter-Ryan (2001)
Mathematics
M.A., B.S., UCLA

Mitchell, Matt (2003)
Mathematics
B.S., UC Davis
M.A., CSU Sacramento

Nehrebecki, Helene (2017)
Mathematics
B.A., Sonoma State University
M.A., Arizona State University

Owens, Rocio (2013)
Mathematics
B.A., M.A., CSU Sacramento

Pico, Glenn (2010)
Mathematics
A.A., Diablo Valley College
B.A. & M.A., CSU Sacramento
M.S., University of Minnesota

Register, Matthew (2015)
Mathematics
B.A., UC Santa Cruz
M.A., UC Davis
M.S., Drexel University

Reichel, Sonya (2019)
Mathematics
M.A., Nashotah House Theological Seminary
M.A., University of San Francisco
M.A., CSU Sacramento

Ridgway, Theodore A. (1999)
Mathematics
B.A., Amherst College
M.A., University of Wisconsin

Rutaganira, Thomas (2000)
Mathematics
M.S., National University of Zaire
M.S., Ph.D., UC Davis

Sabzevary, Iraj (1999)
Computer Information Science
B.A., National University
M.A., CSU Sacramento

Sacco, Tanja L. (2005)
Mathematics
B.S., Biola University
M.A., CSU Fullerton

Sanchez, Brett (2015)
Mathematics
B.S., California Baptist University
M.S., UC Riverside

Shaukat, Kahkashan (2017)
Computer Information Science
Ph.D., Arizona State University

Smith, Phil A. (1989)
Mathematics
B.S., Duke University
M.S., Vanderbilt University
Ph.D., UC Davis

Stokes, Clarence C. (2001)
Computer Information Science
B.B.A., B.A., McKendree College
M.A., Southern Illinois University
M.B.A., Golden Gate University
Ed.D., Argosy University

Tabish, Syeda Momina (2025)
Computer Information Science
B.S., The Islamia University, Bahawalpur, Pakistan
M.S., NUST SEECS, Islamabad, Pakistan
M.S., Michigan State University
Ph.D., University of Iowa

STEM, Science

Afonso, Paulo (2010)
Astronomy
B.S., M.S., University of Lisbon
M.S., UC Davis

Aubert, John E. (1999)
Geography
B.A., CSU Stanislaus
M.A., UC Davis

Bekker, Slava (2018)
Chemistry
B.S., University of Illinois
PhD., UC Davis

Bradshaw, Kathryn (2003)
Biology
B.A., UC Santa Cruz
M.S. CSU Sacramento

Casale, Kristin G. (1994)
Chemistry
B.A., UC Berkeley
Ph.D., UC Davis

Fajardo, Heather (TBD)
Biology
M.S. CSU

Farahmandnia, Saideh (2020)
Biology
B.A., UC Davis
M.D., Ross School of Medicine

Gangursky, Behnaz (2020)
Biology
Ph.D. Tokyo University of Agriculture and Technolog

Hanstad, Janet (2018)
Biology
B.A., University of Oregon
M.S., Utah State University
M.B.A., Western Governors University
Ph.D., UC Davis

Hernandez, Cecilia (1998)
Physics/Physical Science
B.S., M.S., University of Puerto Rico

Holmes, Michael (2018)
Biology
B.S., Cal Poly, SLO
M.S., University of Oregon
Ph.D., UC Berkeley

Howard, Hugh H. (2005)
GIS/Geography
B.A., M.A., San Francisco State University
M.S., Stanford University
Ph.D., University of Kansas

Jaecks, Glenn (2007)
Geology
B.S., University of Wisconsin
M.S., University of Colorado
Ph.D., UC Davis

Koskelo, Ilkka (2018)
Physics
M.A., UC Santa Barbara
B.S., Cornell University

Levy, Melissa H. (1999)
Geology
B.S., M.A., East Tennessee State University

Loucks, Stuart (2000)
Physics
B.S., M.S., UCLA

Maddox, Michael W. (2006)
Chemistry
B.S., Hons, Bath University, UK
Ph.D., Oxford University, UK

Mann, Nicole (2022)
Chemistry
B.S., M. S., CSU Sacramento

Martinez, Marlene (2004)
Biology
B.S., U.C. Davis
Ph.D., UC Berkeley

Meador, Dianne (2003)
Chemistry
B.S., University of Wisconsin
Ph.D., UC Davis

Meadows, Chris (2009)
Chemistry
B.A., University of South Florida
Ph.D., UC Davis

Moore, Justin A. (2005)
Biology
B.S., M.A., CSU Fresno
M.S., UC Davis

Neale, Jennifer C. (2006)
Natural Resources/Biology
B.A., UC Santa Cruz
M.S., UC Berkeley
Ph.D., UC Davis

Niedzinski, Edmund (2008)
Chemistry
B.S., University of Scranton
Ph.D., UC Davis

Payne, Michael (2014)
Chemistry
B.A., M.S., CSU Sacramento

Ramones, Susan (2013)
Biology
B.S., UC Davis
M.S., CSU Sacramento

Romo, Angela (2022)
Chemistry
B.S., Southeast Missouri State University
Ph.D., Johns Hopkins University

Roy, Deboleena (2001)
Chemistry
B.S., M.S., Jadavpur University, India
Ph.D., Texas Tech University

Samin, Ahmad (1997)
Chemistry
B.S. Minnesota State University
M.S. University of North Dakota
Ph.D University of Nevada

Shahrok, Renee (1997)
Biology
B.S., M.S., UC Davis

Simpson, William (2004)
Physics
B.S., Willamette University
Ph.D., UC Riverside

Slutsky, Daniel (2008)
Biology
M.A., CSU Sacramento
B.S., Ph.D., UC Davis

Smith, Lori (2000)
Biology
B.S., Ph.D., UC Davis

Stewart, Daniel (2008)
Chemistry
A.A & A.S., Santa Rosa Junior College
B.S., Ph.D., UC Davis

Sweet, Michael (1999)
Biology
B.S., University of Iowa
M.A., UC Santa Cruz

Telleen, Adam (2018)
Biology/Bio-Technology
B.S., Ph.D., UC Davis

Thomsen, Charles E. (1999)
Geography
B.A., UCLA
M.A., CSU Chico

Topinka, John (2008)
Biology
B.A., Carleton College
Ph.D., UC Davis

Torok, Kaitlin (2001)
Chemistry
B.S. San Jose State University
M.A. UC Davis
M.S. Ohio University

Torrano, Mary (2001)
Biology
A.A., San Joaquin Delta
B.S., UC Davis
M.A., San Francisco State University

Van Den Bogert, Kevin (2018)
Engineering
M.S., UCLA

Volz, Christopher (2019)
Physics/Astronomy
M.S., Indiana University, Bloomington

Weissbart, Brian (2005)
Chemistry
B.S., UC Riverside
Ph.D., UC Davis

Wheaton, Veronica (2006)
Chemistry
B.S. Chabot College
M.S Secondary Science Widener University
M.S Chemistry CSU

Wolfe, David E. (2006)
Biology
B.A., UC Santa Barbara
M.S., Arizona State University

Won, Dean K. (2005)
Biology
A.A., San Joaquin Delta College
B.S., UC Davis
M. Ed., University of the Pacific
M.S., Ph.D., UCLA

Young, Shih-Wen Michael (2003)
Physics/Physical Science
B.S., National Taiwan Normal University
Ph.D., Kansas State University

Yu, Eric H. (TBD)
Chemistry

Zarate, Victor H. (2005)
Physics
B.S., M.S., UC Berkeley

Zarzana, Linda (1989)
Chemistry
B.S., UC Davis
M.S., CSU Sacramento

Workforce Development

Dillon, Vivian (2013)
Work Experience & Internship Program
B.A., UC Santa Barbara
M.S., CSU Northridge

McKnight-Flentroy, Dana (2017)
Foster & Kinship Care Education
M.S., CSU Sacramento